

Tennessee Board of Regents' Minimum Degree Requirements Common Catalog Statement

All universities and community colleges in the Tennessee Board of Regents System (TBR) share a common set of Minimum Requirements for baccalaureate degrees or associate degrees designed for transfer. The Minimum Degree Requirements specify thirty-two semester credit hours in the following subject areas: English composition, Humanities, History, Natural/Physical Sciences and Mathematics, and Physical Education Activity Courses.

Every TBR institution incorporates the thirty-two semester hours into its degree program requirements and accepts all courses designated as meeting these requirements at other TBR institutions. By ensuring the transferability of courses fulfilling the Minimum Degree Requirements, the TBR has eliminated unnecessary repetition of these courses by students transferring to institutions within the TBR System. Because each TBR institution has a unique mission and its own distinctive curriculum, an institution may require students to complete additional courses in the Minimum Degree subject areas and in other areas that may comprise an institutional General Education Program.

Identifying Courses Satisfying the Tennessee Board of Regents (TBR) Minimum Degree Requirements

Although the courses fulfilling the minimum 32-hour core degree requirements may vary in actual design among institutions, many contain similar content. These courses are identified by common course rubrics (prefixes) and numbers in all TBR institutions to facilitate transferability. The actual courses designated by each institution to fulfill the Minimum Degree Requirements, including courses that may not be a part of the common course prefix and numbering pattern, are denoted in catalogs by the © symbol. A complete matrix of courses that satisfy the Minimum Degree Requirements at all TBR institutions and an explanation of the common course rubric and numbering system are available on the TBR web page (www.tbr.state.tn.us).

Course Descriptions 04-05

ACADEMIC SUCCESS

ACAD 1100 Academic Success Seminar T **1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an orientation to the college environment with emphasis on academic skills necessary for college success. This is a one credit-hour course limited to degree-seeking students who have accumulated fewer than 25 semester hours.

ACCOUNTING

ACCT 1003 Accounting For Managers **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course approaches accounting from the non-accountant's point of view. Emphasis is on the importance of financial information in the proper allocation of resources within the organization. This is accomplished by an in-depth study of four basic financial statements, their relation to each other and the ways in which they may be used in the decision-making process. Financial analysis and budgeting are integral parts of the course.

ACCT 1035 Tax Concentration I **4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is the first of a two-semester, in-depth look at individual income taxation from a theoretical, as well as practical point of view. Some of the topics covered include: basic research techniques; exemptions; gross income concepts; inclusions and exclusions; deductions and losses in general; passive activity losses; business expenses and losses; depreciation; employee expenses; and the manner in which these items are presented to the government on Internal Revenue Service tax forms. Prerequisites: DSPM 0800, DSPW 0800, DSPR 0800 or equivalent

ACCT 1045 Tax Concentration II **4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is the second part of a two-part theory and forms course dealing with the Internal Revenue Code and how the taxpayer complies with the tax laws by submitting the exact form specified for the tax event. Topics covered in this course include itemized deductions; the alternative minimum tax; tax credits; property transactions; accounting periods and methods; and deferred compensation. As in the first part of the course, the relevant tax forms, including Tennessee, Arkansas and Mississippi State forms, are covered in detail. Prerequisite: ACCT 1035

ACCT 1210 Principles of Accounting I T **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is the first of a two-semester course designed to introduce the student to accounting principles, practices and techniques. Emphasis is placed on accounting for a proprietorship. The accounting cycle, financial statements, control of cash, inventories, plant assets, current liabilities, and payroll accounting are covered.

ACCT 1220 Principles of Accounting II T **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of Principles of Accounting I with an emphasis on corporations, financial analysis and managerial accounting. Content includes corporate organization, operations, earnings per share and dividends; long-term obligations and investments; statement of cash flow; analysis of financial statements; departments and branches; cost accounting systems; cost volume-profit analysis; budgeting and standard cost, and decision making. Prerequisite: ACCT 1210

ACCT 1280 Database Management for Accountants **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to state-of-the-art database management software. Prerequisite: keyboard proficiency or permission of instructor.

ACCT 1290 Spreadsheets For Accountants **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces the student to Microsoft's basic spreadsheet software. Major topics include spreadsheet vocabulary, command menu structure, spreadsheet design, introduction to database, and graph design and production. Prerequisite: keyboard proficiency, or permission of instructor

ACCT 1310 Income Tax I **4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to provide a comprehensive understanding of the federal income tax structure as it relates to individuals. Further, it provides a well-rounded tax education, not mere tax training, in the application of tax principles to specific problems. Tax forms currently in use are highlighted. Prerequisite: ACCT 1210

ACCT 1320 Income Tax II **4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of Income Tax I emphasizing the Internal Revenue Code and Regulations as they pertain to corporations, partnerships, decedents, estates, and trusts. Prerequisite: ACCT 1310

ACCT 1931-1933 Co-operative Education Work Experience I - III **3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

Through this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs that it provides, plus the impact it has on today's society. Prerequisite: Co-op advisor's approval

ACCT 1941- 1943 Cooperative Work Experience IA-III A **4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

Through this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs that it provides, plus the impact it has on today's society. Prerequisite: Co-op advisor's approval

ACCT 2024 Cost Accounting **4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of the fundamentals of cost accounting within an industrial organization. The accounting functions relative to materials, labor, and factory overhead are treated in detail. Job order and process cost systems are fully explored. Standard cost systems, budgeting, and managerial control functions are also discussed. Prerequisite: ACCT 1220

ACCT 2035 Tax Concentration III **4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces tax students to corporations that are taxed at the corporate level as opposed to the shareholder level. Some of the topics covered include: organization and capital structure; earnings and profits and dividend distributions; redemptions and liquidations; the corporate alternative minimum tax; penalties; reorganizations; consolidated tax returns; and international transactions. All related federal and state (Tennessee, Arkansas and Mississippi) tax forms are covered in detail. Prerequisite: ACCT 1045

ACCT 2044 Governmental Accounting

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

The accounting theory of analyzing, recording, summarizing, reporting, and interpreting the financial transactions of governmental units and agencies is studied in this course. Emphasis is on state and local governments. Prerequisite: ACCT 1220

ACCT 2045 Tax Concentration IV

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

The theory of taxation of the income of partnerships, S corporations, fiduciaries, as well as the tax consequences of lifetime and testamentary property transfers, and the related forms and schedules are discussed in the course. Prerequisite: ACCT 1045

ACCT 2055 Accounting Applications for Microcomputers

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

The solution of accounting problems by using the microcomputer is emphasized in this course. Hands-on experience with state-of-the-art hardware and software and current general ledger programs.

ACCT 2064 Auditing

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

The special place of the auditor in accounting is examined on an organization level, an ethical level, and a legal liability level. Emphasis is placed on the tools of the auditor, including statistical sampling techniques and the use of computerized audit programs. Laboratory periods permit actual preparation of audit work papers in a realistic environment. Prerequisite: ACCT 2210

ACCT 2074 Advanced Accounting

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

Current accounting problems relating to partnerships, installment sales, consolidations, foreign subsidiaries, and fiduciary accounting are examined by the student in this course. The formation, income division and liquidation of partnerships, cost and equity accounting for subsidiaries and consolidation on a purchase or a pooling of interests basis are examined in depth. Prerequisite: ACCT 1220

ACCT 2095 Advanced Accounting Applications for Microcomputers

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

The advanced student is given the opportunity in a hands-on environment to develop and use computer skills to solve more difficult accounting problems. Basic computer skills are enhanced as a secondary objective. Prerequisite: ACCT 2055

ACCT 2145 Tax Concentration V

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

This course is designed to allow the student to apply the theory and form preparation skills learned in earlier courses using commercial tax-compliance software. The student is also introduced to the concept of electronic filing. Prerequisite: ACCT 2045

ACCT 2210 Intermediate Accounting I

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

This course provides an in-depth study of accounting records and reports, end-of-period procedures, and net income concepts. Content includes financial statement interpretation and preparation, receivables, systems, and controls, inventories, plant and intangible assets, and investments. Prerequisite: ACCT 1220

ACCT 2220 Intermediate Accounting II

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

This course is a continuation of Intermediate Accounting I with emphasis placed on the formation and operation of the corporate form of business organization. Content includes liabilities and reserves, analysis of financial statements and working capital, dividends, earnings per share, income tax allocation, and revenue recognition. Prerequisite: ACCT 2210

ACCT 2290 Advanced Spreadsheets for Accountants

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

This course continues the study of Microsoft Excel with an emphasis on projects especially important to accountants. This course emphasizes more advanced accounting situations that Excel makes easier. Prerequisite: ACCT 1290

AERONAUTICAL STUDIES

AERO 1100 U.S. Air Force Today Leadership Laboratory (Fall)

0 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)

Corequisite: AERO 1101

AERO 1101 The Air Force Today I (Fall)

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

This survey course is designed to introduce students to the United States Air Force and Air Force ROTC. Topics include Air Force mission and organization, customs and courtesies, officer opportunities, problem solving, and communication skills. Corequisite: AERO 1100

AERO 1110 U.S. Air Force Today II Lab (Spring)

0 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)

Corequisite: AERO 1111

AERO 1111 U.S. Air Force Today II (Spring)

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

This course is a continuation of AERO 1101. Corequisite: AERO 1110

AERO 2200 The Air Force Way I Lab (Fall)

0 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)

Corequisite: AERO 2201

AERO 2201 The Air Force Way I (Fall)

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

This survey course is designed to facilitate the transition from AFROTC cadet to officer candidate. Topics include Air Force Heritage and leaders, Quality Air Force, ethics and values, leadership, group problem solving, and communication skills. Corequisite: AERO 2200

AERO 2210 The Air Force Way II Lab (Spring)

0 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)

Corequisite: AERO 2211

AERO 2211 The Air Force Way II Lab (Spring)

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

ALLIED HEALTH SCIENCES

AHS 1020 Medical Terminology

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Medical terminology is the study of words that relate to body systems, anatomical structures, medical processes and procedures, drugs and a variety of diseases that afflict humans. Prefixes, suffixes, abbreviations, plural endings, word roots, and combined forms are covered. Terms are presented that relate to all areas of medical science, hospital service and paramedical facilities.

AHS 2990 Special Topics In Health Careers

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course provides an in-depth study of selected topic(s) related to aspects of health occupations to further develop job-seeking skills. Field trips, guest speakers, and individual projects are included. Emphasis is on personal health/development.

ANTHROPOLOGY

ANTH 2010 Cultural Anthropology

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is the study of the origin and development of human culture including social relations, language, government, religion, rituals, and the problems of developing nations and minority groups in the modern world. Prerequisite: DSPW0800, DSPR0800 or equivalent

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

ARCHITECTURAL ENGINEERING TECHNOLOGY

ARCH 1124 Architectural Drawing and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course is an introduction to the fundamentals of graphic representation of subjects that are architectural in nature. Drafting expressions and light construction principles are stressed to increase the student's knowledge and proficiency in drawing architectural plans and details. Corequisite: DSPM 0800 or approval of program coordinator

ARCH 1224 Contract and Construction Documents and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course is a continuation of Architectural Drawing with emphasis on the production of architectural working drawings. Drawings are made of typical floor plans, building elevations and sections following a study of structural relationships, utility needs, and aesthetic aspects. Students will use the computer to produce drawings. Prerequisite: ARCH 1124, ARCH 2644, or permission of the program coordinator.

ARCH 1244 Materials/Methods and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course familiarizes the student with physical properties, grades, and uses of materials generally employed in residential and commercial construction. Prerequisites: ARCH 1124 or MEET 1210 or permission of program coordinator

ARCH 1901-1908 Technical Scholarship Program I-VIII 4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

Students work part-time training in areas related to their majors at their sponsoring companies. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair, may take as many as eight courses

ARCH 1931-1933 Co-operative Education Work Experience I - III 3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

ARCH 1941-1943 Co-operative Education Work Experience IA - IIIA 4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

ARCH 2644 Computer Aided Drawing and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This is an introduction to basic computer concepts and software applications for creating computer-aided drawings for architectural activities. The emphasis will be in AutoCAD software. Prerequisites: DSPM 0800 or permission of program coordinator

ARCH 2714 Mechanical Equipment and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course presents the basic theories of design, installation, and operation principles of water supply, plumbing, sewage disposal, fire protection, ventilation, heating and cooling, and electrical requirements for buildings. Students will use computer spreadsheet software in the course. Prerequisites: ARCH 1244 or permission of program coordinator

ARCH 2735 Building Codes in the Design Process and Lab 2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)

This course involves the study of building codes and zoning ordinances from the perspective of one designing a building or other structure. Building codes and zoning ordinances protect the lives and health of the public and positively impact the aesthetic aspects of the community.

ARCH 2736 Principles of Construction Specifications and Lab 2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)

A fundamental understanding of written construction documents is essential for organizing, preparing, using, and interpreting written construction documents, including specifications used in the design and construction industry. This course includes a study of bidding requirements, contract requirements, and specifications. Also included are content, language, and format used in specification writing and the role of material selection and evaluation in the specification writing process. Prerequisite: ARCH 1124

ARCH 2744 Architectural Design and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

The study of architectural design is recommended to the technicians to encourage the understanding of the art of architecture, the elements of form and space, and the ordering of our built environment. The architectural engineering technician needs the vocabulary of design in order to understand and transmit graphical information and instruction from the architect or engineer to the drawings. Prerequisite: ARCH 1124 or permission of program coordinator.

ARCH 2824 Construction Estimates and Lab 4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course acquaints the student with the basic principles and current practices employed in estimating construction costs. The student prepares material and labor quantity surveys from working drawings and specifications for residential and commercial buildings. The principles of bid procedures and requirements of construction projects are introduced. Students will use computer-estimating software in the course. Prerequisites: ARCH 1244

ARCH 2844 Advanced AutoCAD and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course focuses on the continued development of AutoCAD skills, both basic as well as advanced. Some of the areas covered will include general computer system management, typical office standards for CAD production consistency, customization techniques for optimizing efficiency, and overview of 3D modeling processes. Prerequisites: ARCH 2644 or permission of program coordinator

ARCH 2845 AutoCAD and GIS 3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This will be a continuation course for AutoCAD users and Geographic Information Systems (GIS) users utilizing AutoCAD Map. The course will give students automated mapping and GIS skills to create and maintain maps for GIS purposes within AutoCAD software. Students will develop skills for presentation, query and analysis of GIS. Prerequisite: ARCH 2644

ART

ART 1030 Art Appreciation T 3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Art Appreciation is a study of the visual arts designed to teach visual awareness by examining a variety of styles from various periods and cultures. Emphasis is placed on the development of a common visual language in order to assess, discuss, and enjoy works of visual arts from diverse media, cultures, and periods. This course fulfills the Fine Arts/Humanities requirement for the General Education core. Prerequisite: DSPW 0800 and DSPR 0800 or equivalent

ART 1070 Color Fundamentals T 3 Credit Hour(s) 3 Lecture Hour(s) 6 Lab Hour(s)

This course is a study of color perception, systems of color organization and studio exercises in color mixing, interaction, and color harmony.

ART 1110 Basic Design T

3 Credit Hour(s) 3 Lecture Hour(s) 6 Lab Hour(s)
This course is a study of the elements of design, line, texture, and form in space using a variety of materials and methods.

ART 1150 Basic Photography T

3 Credit Hour(s) 0 Lecture Hour(s) 6 Lab Hour(s)
This course is an introduction to the optics, physics, and chemistry of photography. Basic lessons in the theory and practice of photographing, developing, copying, and enlarging are presented.

ART 1170 Creative Photography T

3 Credit Hour(s) 3 Lecture Hour(s) 6 Lab Hour(s)
This course is a continuation of Basic Photography with further exploration of black and white photography as a vehicle for personal expressive statement. Students should have their own 35mm camera. Prerequisite: ART 1150 Basic Photography or permission of instructor

ART 1550 Drawing I T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This is a studio course for beginners with emphasis on developing the student's confidence in representing and expressing physical as well as mental images. Experience in line, shape, gesture, contour, proportion, perspective, and design will be offered. The instructors will give demonstrations of the various methods of drawing.

ART 1560 Drawing II T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This is a studio course for beginners with emphasis on developing the student's confidence in representing and expressing physical as well as mental images. Experience in line, shape, gesture, contour, proportion, perspective, and design will be offered. The instructors will give demonstrations of the various methods of drawing.

ART 1910 Painting I T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This is a studio course for beginners with emphasis on using materials, learning painting techniques and color mixing fundamentals, and preparing painting surface.

ART 1920 Painting II T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This is a continuation of Painting I. It involves more extensive exploration of form, color and subject relationships. Personal creativity is stressed. Prerequisite: ART 1910 Painting I or permission of instructor.

ART 2030 History of Architecture T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is designed to give the beginning student a solid basis in the fundamental terminology of architecture and the principles of architectural history. Emphasis is placed on the ability to discern between the styles and periods of architecture. By the end of the course, each student is expected to demonstrate a basic knowledge of the various styles of architecture, as well as a general knowledge of the history of architecture. Prerequisite: DSPW 0800 and DSPR 0800 or equivalent

ART 2101 History of World Art I T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
History of World Art I is a study of the development of visual arts through an examination of examples from our historical past, from prehistoric times through the medieval period and up to the Renaissance. Prerequisite: DSPW 0800 and DSPR 0800 or equivalent

ART 2102 History of World Art II T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
History of World Art II is a continuation of World Art I, with emphasis on the development of the visual arts from the Renaissance to the present. Prerequisite: DSPW 0800 and DSPR 0800 or equivalent

ART 2830 Individual Problems T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is for art majors with advanced standing or high competence. It is designed to offer investigation in areas of a specialized

nature, which are not offered in the curriculum. Course content will be decided between instructor and student. Prerequisite: Permission of the instructor

AUTOMOTIVE SERVICE TECHNOLOGY

AUTO 1010 Automotive Engines I and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

The operational theory and servicing of an internal combustion engine are explored. Emphasis is placed upon the proper use of hand tools, specialized tools, measuring instruments and test equipment. Prerequisite: Permission of program faculty

AUTO 1020 Automotive Engines II and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the cooling and lubrication systems of the automotive engine. Included are water pumps, hoses, thermostats, radiators, friction oils, filters, and types of lubricating systems. Electronic and conventional ignition systems are covered. Utilization of standard test equipment is covered. Corequisite: AUTO 1110

AUTO 1103 Organization and Administration of an Automotive
3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course introduces shop operations, customer relations, service manuals, general servicing, flat rate manuals and safety and fire prevention. Automotive fasteners, measuring instruments and general shop tools are covered. Light duty service, minor repairs, tire and battery and wheel service are covered.

AUTO 1110 Automotive Electrical and Electronics Systems I Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course explores the theory, function, and utilization of electrical and electronic devices in automotive control and display circuits. Included are batteries, wiring, diodes, transistors and other devices. Circuit design utilizing ICS, basic test equipment and the application and operation of basic electricity and electronics is covered. Prerequisite: Permission of program faculty

AUTO 1120 Automotive Electrical and Electronic Systems II Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the automotive electrical system including the battery, wiring, lights, generators, starters and voltage regulators. The use of electrical schematics and general-purpose test equipment is covered. Prerequisite: AUTO 1110

AUTO 1144 Brake Systems and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the various types of automotive hydraulic brake systems and the recommended service and repair procedures, including bleeding, flushing, and leak testing. Anti-lock brake systems (ABS) diagnosis and repair and general tire and wheel servicing are covered. Corequisite: AUTO 1110

AUTO 1244 Heating and Air Conditioning Systems and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the fundamental operations of air conditioning and heating systems. Troubleshooting, servicing, evacuation and charging are covered. Emphasis is given to the troubleshooting and repair of electronic climate control systems. Refrigerant recovery, recycling, and handling are covered. Corequisite: AUTO 1110

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

AUTO 1621 Commercial Driver's License Basics
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course focuses on the general knowledge topics pertinent to the safe operation of a commercial vehicle based on the requirements set forth by the state of Tennessee. These topics include Commercial Driver's License laws, qualifications, driving and cargo safety, air brake operations and components, vehicle operation and inspection, tests and hazardous materials. Students develop an understanding of the items covered in the CDL General Knowledge Test, the Air Brakes Test, the Combinations Vehicle Test and the Hazardous Materials Test.

AUTO 1901-1908 Technical Scholarship Program I - VIII
4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

Students work part-time training in areas related to their majors at their sponsoring companies. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair, may take as many as eight courses. These credits are normally added to the student's cumulative record and included in his/her QPA calculation.

AUTO 1941-1945 Cooperative Education Work Experience I - V
4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

The student participates in a directed work experience that supplements and reinforces the subjects covered in the semester. The specific competencies to be gained during the work experience are identified through coordination of the student's college program chairperson and the employing company. These competencies are related to the student's most recent instruction.

AUTO 2010 Automotive Engines III and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the purpose and function of the various fuel systems, the exhaust system, and the diverse emission control systems used on the automobile. Carburetors and fuel injection systems are discussed; emission control systems are studied in depth. The use of tools and equipment for proper diagnosis and repair is stressed. Prerequisite: AUTO 1020

AUTO 2020 Automotive Engines IV and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the engine, sensors, and computer as an integrated machine. Troubleshooting utilizing state-of-the-art test equipment is stressed. Prerequisites: AUTO 1110, AUTO 2010

AUTO 2144 Manual Transmissions and Drive Trains
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course is a study of torque and gearing as applied to manual transmissions, manual transaxles, differentials, drive axles, clutches, and four-wheel drive components. Also covered are the diagnosis and repair of these units. Prerequisites: Permission of program faculty

AUTO 2164 Suspension and Steering Systems and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the various types of suspension and steering systems, both manual and power-assist units. The recommended diagnosis and repair procedures for each system are covered. The principles and procedures of four-wheel alignment are also covered, along with advanced wheel and tire service and repair. Prerequisite: Permission of Program Faculty

AUTO 2203 Auxiliary Electronic Systems and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course covers the myriad of specialized electronics utilized for comfort heating and cooling, suspension leveling, light dimming and control, fiber optics, trip computer, and other auxiliary systems.

BIOLOGY

BIOL 1000 Special Topics In Biology
Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

A series of topics designed to attract students from all academic areas. Special topics titles are published in the class schedules as the topics are offered. Emphasis on appreciation of the biological sciences and their application to humanity.

BIOL 1010 Introduction To Biology I **T**
Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is the first of a two-semester science course sequence for non-science majors. An overview of the following is covered: chemistry of life, cell structure and function, cell division, protein synthesis, metabolism, photosynthesis, and tissues. In addition, several human organ systems are examined.

BIOL 1020 Introduction To Biology II **T**
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is the second of a two-semester science course sequence for non-science majors. Students will study human organ systems, structure and function of organisms, diversity of life, ecology, and evolution. Prerequisite: BIOL 1010

BIOL 1110 General Biology I **T**
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is the first of a two-semester laboratory science course sequence for biological science majors. The following concepts are included: chemistry of life, cell structure and function, metabolism, cell reproduction, genetics, evolution, the chemical basis of heredity and protein synthesis. Through lecture, demonstration, and laboratory activities, the course will foster an understanding of and appreciation for the fundamentals of biology and the scientific process.

BIOL 1120 General Biology II **T**
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course is a continuation of General Biology I and provides information and laboratory techniques to help students understand the origin and diversity of life, and the structure, function, and ecology of organisms. Prerequisite: BIOL 1110

BIOL 1230 Microbiology **T**
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course provides a study of microorganisms with emphasis on their relationship to pathogenesis, disease prevention and principles of immunology. Included are basic laboratory techniques and procedures. Prerequisite: BIOL 1010 or BIOL 1110 or BIOL 2010

BIOL 1300 Introduction to Anatomy and Physiology
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This introductory course is designed to provide the basic foundation for successful comprehension of human anatomy and physiology sequence of courses required for Health Sciences majors. Emphasis is placed upon the vocabulary, morphology, and functions of the systems of the human body. This course is recommended for all students lacking high school biology. This course is not credited toward majors in sciences or Allied Health.

BIOL 2010 Principles of Anatomy and Physiology I **T**
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is the first of a two-semester laboratory science sequence for students meeting Nursing and Allied Health curriculum requirements. Students will receive a brief review of cell biology. Organization of the human body, tissues, the structure and function of the integumentary, skeletal, muscular, nervous systems and special senses will be covered. Students with a weak biological sciences background are encouraged to take BIOL 1300, or BIOL 1010.

BIOL 2020 Principles of Anatomy and Physiology II **T**
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is a continuation of principles of Principles of Anatomy and Physiology I. Students will study the structure and function of the endocrine, reproductive, respiratory, cardiovascular, lymphatic, digestive, and urinary systems. Fluid, electrolyte and acid-base homeostasis are reviewed. Prerequisite: BIOL 2010

BIOL 2230 General Microbiology **T**
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course is a study of the origins, growth, physiology and anatomy of microorganisms with emphasis on microbial genetics, metabolism and gene manipulation of bacteria, viruses and fungi. Included are basic laboratory techniques and procedures. Prerequisites: BIOL 1110 and CHEM 1110

CIVIL/CONSTRUCTION ENGINEERING TECHNOLOGY

CCET 1010 Surveying I and Lab

4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)

This course covers the fundamentals of plane surveying, with practice in the use of the tape, level, and transit in making horizontal and vertical measurements. Fieldwork includes boundary surveying, topographic, profile and benchmark leveling, with procedures of keeping field notes and note reduction. Construction layout is covered. Corequisite: MATH 1740

CCET 1134 Civil Drafting and Lab

4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)

This course introduces the student to drafting practices pertinent to the field of civil engineering technology. Work is done on topographic drawings, land layout, utilities, plan and profile, and earthwork cross-sections, including calculations. Construction and fabrication drawings are covered. Drawings are done using computer software. Prerequisites: ARCH 2644, CCET 1010

CCET 1901-1908 Technical Scholarship Program I - VIII

4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

Students work part-time training in areas related to their majors at their sponsoring companies. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair, may take as many as eight courses.

CCET 1931-1933 Co-operative Education

Work Experience I - III

3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

CCET 1941-1943 Cooperative Education Work Experience IA - IIIA

4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

CCET 2020 Surveying II and Lab

4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)

The student studies various types of route locations and surveys in this course. Both classroom and fieldwork in horizontal and vertical curves, and slope-staking are covered. The student has hands-on use of theodolites and electronic distance-measuring equipment. Computer computations are introduced to the student, including traverse closure by the DMD method. The student is also introduced to Global Positioning System (GPS) equipment and software. Prerequisite: CCET 1010

CCET 2123 Construction Planning, Equipment and Methods and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course introduces the student to fundamentals in the planning and selection of equipment and methods for various construction operations. Prerequisite: ARCH 1244

CCET 2203 Strength Of Materials and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

In this course, the student studies the following topics: stress and strain, direct and shearing stresses, torsion, bending, bolted and riveted connections, basic design of timber and steel beams and timber and steel columns, beam deflections, and statically indeterminate beams. Prerequisite: MEET 1154

CCET 2614 Structural Design and Lab

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course introduces the student to design practices applicable to simple steel and timber members, including connections and reinforced concrete beams, slabs, and columns. Prerequisite: CCET 2203

CCET 2623 Concrete Technology and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course introduces the student to fundamentals of mix design and the inspection concerned with the manufacture and testing of concrete as a construction material. The following topics are covered: basic properties of cement and the relationships between cement, water and aggregates; properties desired in plastic and hardened concrete; proportioning mixes; sampling, and field and lab testing. Prerequisite: MATH 1740

CCET 2633 Soils and Foundations and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course acquaints the student with the importance of soils as a construction material. The student performs basic laboratory tests. The design of footings is covered.

CHEMISTRY

CHEM 1000 Chemistry For Health Sciences

4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is a one semester course designed to study the elementary concepts of inorganic, organic, and biochemistry. The course is not intended for science, engineering, or engineering technology majors. The course studies classification of matter, measurements, atomic theory, periodic table, nuclear processes, physical states of matter, solution chemistry, hydrocarbons, organic functional groups, carbohydrates, lipids, proteins, nucleic acids, enzymes, and body fluids. Prerequisite: Open admission

CHEM 1010 Introduction To Chemistry I

T

4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

The first of a two-semester course sequence designed for nursing majors, allied health, and other paramedical students. This course may be used as a preparatory course for CHEM 1110. This course is NOT intended for science, engineering, or engineering technology majors. The course covers basic concepts of inorganic chemistry with focus on health sciences. The impact of chemistry on society is emphasized along with writing skills. Prerequisite: Demonstrated proficiency in elementary algebra confirmed by placement test scores or completion of appropriate college math scores

CHEM 1020 Introduction To Chemistry II

T

4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is a continuation of CHEM 1010, Introduction to Chemistry I. The course is designed primarily for nursing majors, allied health, and other paramedical students. This course is NOT intended for science, engineering, or engineering technology majors. The course emphasizes elementary organic chemistry and biochemistry. Prerequisite: CHEM 1010 or equivalent

CHEM 1050 Allied Health Instrumentation

T

4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This is a one-semester laboratory course designed to give allied health and science-oriented students experience in the principles of electronic instrumentation and analytical techniques used in clinical and industrial laboratories. The course is not intended for science, engineering, or engineering technology majors. Prerequisite: CHEM 1010- Introduction to Chemistry I or CHEM 1110 General Chemistry I

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

CHEM 1110 General Chemistry I T**4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)**

This is the first course in a two-semester sequence for science majors, pre-professional students, and pre-engineering students. The course covers fundamental concepts including measurements, language and stoichiometry, atomic and molecular structure, ionic and covalent bonding, states of matter, the gas laws, solutions, and thermochemistry. This course meets prerequisites for further study in chemistry in baccalaureate programs. Prerequisite: Demonstrated mastery of high school algebra and high school chemistry or equivalent college course(s) confirmed by placement exams, ACT scores or previous post secondary enrollment

CHEM 1120 General Chemistry II T**4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)**

This is a continuation of CHEM 1110 General Chemistry I. This course covers thermodynamics, chemical kinetics, ionic and molecular equilibrium, acids and bases, electrochemistry, including oxidation-reduction principles, nuclear chemistry, and environmental chemistry. The course meets prerequisites for further study in chemistry in baccalaureate programs. Prerequisite: CHEM 1110

CHEM 2010 Organic Chemistry I LEC T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is the first of a two-semester science course for science majors and pre-professional students. The course is a systematic study of the fundamental principles of organic chemistry with interpretation of structure and properties based upon modern atomic and molecular theory. Topics include aliphatic hydrocarbons, stereochemistry, nucleophilic substitutions and eliminations, spectroscopy, and aromatic hydrocarbons. Prerequisite: CHEM 1120

CHEM 2011 Organic Chemistry Lab I T**1 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)**

Application of laboratory techniques to the synthesis, separation, and identification of organic compounds. Prerequisite: CHEM 1120 General Chemistry II. Prerequisite or Corequisite: CHEM 2010 Organic Chemistry I

CHEM 2020 Organic Chemistry II LEC T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is a continuation of Organic Chemistry I. Emphasis is placed on functional derivatives of aliphatic and aromatic hydrocarbons. Prerequisite: CHEM 2010

CHEM 2021 Organic Chemistry Lab II**1 Credit Hour(s) 1 Lecture Hour(s) 3 Lab Hour(s)**

Continuation of Organic Chemistry Laboratory I. Emphasis is placed on synthesis and class reactions of organic compounds. Prerequisite: CHEM 2010 Organic Chemistry I and CHEM 2011 Organic Chemistry Laboratory I. Prerequisite or Corequisite: CHEM 2020 Organic Chemistry II

CRIMINAL JUSTICE - CORRECTIONS**CJSC 1040 Introduction To Corrections** T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course explores the purpose of corrections and how correctional operations relate to our system of governing and sentencing. Descriptions and analysis of the philosophy, basic techniques, and current trends in local and national correctional programs are studied.

CJSC 1180 Constitutional Rights of Prisoners/Institutional Procedures T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an analysis of prisoners' rights in light of new Supreme Court decisions. An explanation of proper procedures recently developed to comply with these decisions for the protection of the agency and the individual correctional officers is discussed.

CJSC 1500 Correctional Counseling T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course will define the goals of counseling and review the current theories recognized by behavioral scientists. Many jails and prisons

have organized counseling services for their jail/prison population. A counseling program benefits inmates and institutional employees. This course is an effort to define the role and scope of institutional counselors as well as highlight their correctional duties.

CJSC 1600 Correctional Supervision and Management T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Emphasis is on classic supervision and management theories. Students become familiar with recognized methods of dealing with others in accountability situations. Issues such as policymaking, correctional law, employee rights, professionalism, ethics, grievance mechanisms and routine custody procedures are studied.

CJSP 1100 Criminal Procedures T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The course explores guidelines for the legal aspects of the law enforcement officer's duties and focuses on an understanding of the Constitution and the reasons behind the guidelines. The student will be provided with a broader and more sophisticated understanding of criminal procedure.

CJSP 1200 Judicial Process and Administration T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The course acquaints the student with the judicial system's processes. The student will acquire knowledge of preliminary courtroom procedures, motions, administrative procedures, courtroom testimony and local judicial systems procedures.

CJSP 1300 Policing in America T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A comprehensive introduction to the basic features of policing in the United States is studied. Descriptive in nature, it acquaints students with the current state of knowledge about police organizations, police work, police officers, and the problems facing police today.

CJSP 2100 Police and Community Relations T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is the study of relationship analyses between various community segments and law enforcement. The course stimulates individual expression through discussion, reading, films, simulations, and encounter dramatizations.

CRIMINAL JUSTICE STUDIES**CJST 1010 Introduction to Criminal Justice** T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course presents an overview of the American criminal justice system and traces its historical and legal development, including the role of law enforcement, courts, and corrections in national, state, and local application.

CJST 1020 Criminal Investigation T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course continues the basic fundamentals of criminal investigation. It includes the practical aspect of exploring preliminary investigative techniques; identifying, collecting, and processing physical evidence, and studying the elements of specific offenses.

CJST 1050 Contemporary Issues T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a review and in-depth examination of current issues and trends concerning the criminal justice process with emphasis on problems impacting local criminal justice agencies and personnel.

CJST 1060 Psychological Aspects of Criminal Behavior T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of deviant behavior with emphasis on dealing with the mentally disturbed, sexual deviates, and drug addicts. It examines the role of the psychologist in criminal justice cases.

CJST 1080 Standards and Principles in Criminal Justice T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a survey of ethics and principles within various criminal justice organizations. The course will examine basic ethical, legal, and moral questions relating to crime and justice, the role of police, the role of the prosecutors, the role of the judges, and the role of victims and their participation in the legal process.

CJST 1160 Juvenile Justice T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course will cover juvenile problems and causes, court functions, corrective measures, and preventive techniques. The responsibilities, capabilities, programs, and techniques of court personnel in delinquency prevention and local, state, and federal juvenile statute laws will also be discussed.

CJST 1300 American Legal System T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course reviews basic laws governing the maintenance of a democratic society and how criminal, constitutional, consumer, environmental, housing and family laws meet the challenge of American society.

CJST 1320 Introduction to Law and the Legal Systems T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a comprehensive overview of the American legal system and provides the student with a basic knowledge about the law, an examination of what the law entails, the judicial system, judicial decision-making and remedies, civil procedures, contracts, and property law.

CJST 1910 Criminal Justice Field Experience I T
3 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)
Students are assigned to a criminal justice setting requiring 135 hours with the agency and 10 hours classroom and/or individual instruction. Reports and evaluations are required. This course is open to pre-service students with 12 credit hours at Southwest and at least 6 hours in Criminal Justice Studies. In-service students may apply for credit after completing 12 credit hours at Southwest and employer certification showing one year of continuous criminal justice employment.

CJST 1920 Criminal Justice Field Experience II T
3 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)
Students are assigned to a work project/site consisting of 135 hours casework/program development and 10 hours classroom activity of independent study. Reports and evaluations are required. This course is open to pre-service students with 21 credit hours at Southwest with at least 9 hours in Criminal Justice. In-service students may apply for credit after completing 21 credit hours at Southwest and employer certification showing three years of continuous criminal justice employment.

CJST 2000 Criminology T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a systematic study of crime, criminals and the criminal justice system. It explores the fundamental elements of criminology through a study of the causation and criminal behavior theories and examines the relevant activities of the criminal justice system. Prerequisite: CJST 1010 Introduction to Criminal Justice.

CJST 2040 Investigative Report Writing T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course focuses on preparing analytical investigative reports and explores techniques of organizing, structuring, and investigating the report to comply with proper guidelines. Prerequisite: ENGL 1010 English I

CJST 2080 Drug Abuse and Law T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a socio-legal guide to the drug abuse phenomenon and examines the psycho-social dynamics and pharmacological risks leading to psychoactive drug misuse as well as law enforcement and alternative intervention techniques in sentencing the drug offender.

CJST 2210 Criminal Law T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This is a study of criminal law legal principles, purposes and rules and includes specific offenses, incomplete crimes, accomplices, accessories and criminal liability defenses. The course also covers classifications of crimes, criminal intent, and corpus delicti.

CJST 2410 Introduction to Criminal Justice Research T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This introductory course in Criminal Justice Research provides the student with opportunities for active learning through the use of the computer to examine and compile statistical information relating to criminal justice and to examine the nature of crime in society. The course is restricted to students enrolled in the Honors program.

CJST 2990 Special Topics–Criminal Justice T
3 Credit Hour(s) 3 Lecture Hour(s) 1 Lab Hour(s)
This course addresses specific topics to meet the needs of criminal justice personnel.

COMPUTER LITERACY

COMP 1010 Computer Literacy T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This is a first course in computer science. Introduction to uses, history, ethics, hardware, software, languages, networks and the Internet. Also, applications in word processing, spreadsheet and database are developed through laboratory work. Prerequisite: DSPM 0700 Basic Mathematics or proficiency on the placement examination

COURT REPORTING

CORT 1001 Legal Terminology
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is designed to familiarize the student with the meaning and spelling of Latin and English legal terms that legal professionals encounter.

CORT 1010 Machine Shorthand Theory I and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)
This course covers the introduction and mastery of basic stenotype concepts for all one-syllable words and simple two-syllable words written by sound, beginning number writing, all marks of punctuation, one- and two-letter brief forms, two- and three-letter phrases, reading from stenotype notes, and dictation at 40 words per minute. Students begin the development of recording and transcribing live dictation with the use of computer-aided transcription (real-time translation). Mastery of the beginning principles of the touch method are emphasized as well as an understanding of the court reporting profession. Prerequisite: Student must obtain machine and other equipment (paper, cassette recorder and cassette tapes) to be prepared to work on first night of class.

CORT 1020 Machine Shorthand Theory II and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)
This course covers the introduction and mastery of advanced stenotype concepts for word beginnings and word endings (words of two or more syllables), advanced number concepts, homonyms, reading from stenotype notes, dictation at 40/60 words per minute, and introduction to beginning speed building principles. Prerequisites: CORT 1001, CORT 1010

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

CORT 1025 Machine Shorthand Theory III and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course covers the introduction and mastery of advanced stenotype concepts for word beginnings and word endings, advanced number concepts, reading from stenotype notes, dictation at 60/100 words per minute, and introduction to beginning speed building principles. Prerequisite: CORT 1020

CORT 2010 Elementary Speed Building and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

Dictation practice and testing for speeds 100/140 words per minute are included in this course. The student must pass three tests of Q & A, Jury Charge (Legal Opinion) and Literary at each speed (100/140) with 95 percent accuracy (five-minute tests). Computer-aided transcription systems word processing systems, and video applications for the court reporter are also covered in this course. Prerequisites: CORT 1001, CORT 1025 Corequisite: OFAD 1510

CORT 2015 Computer-Aided Transcription
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Computer-aided transcription systems, word processing systems, and video application for the court reporter are covered in this course. Corequisite: CORT 2010

CORT 2022 Intermediate Speed-Building
4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)

Dictation practice and testing for speeds 140/180 words per minute are included in this course. The student must pass three tests of Q & A, Jury Charge (Legal Opinion) and Literary at each speed (140/180) with 95 percent accuracy (five-minute tests). Computer-aided transcription systems, word processing systems, and video applications for the court reporter are also covered in this course. Prerequisites: Typing speed of 60 words per minute, CORT 2010

CORT 2025 Court Reporting Grammar and Punctuation
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course contains specialized English topics as they apply to the reporting profession. Grammar for court reporters emphasizes parts of speech and parts of structure of sentences. This course lays an essential foundation for study of the sophisticated punctuation rules that follow, which enable the reporter to produce verbatim transcripts with emphasis on proofreading techniques. Corequisites: CORT 1020, ENGL 1010

CORT 2032 Advanced Speed Building and Lab
4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)

This course includes dictation practice and testing for speeds 180/225 words per minute. The student must pass three tests of Q & A at each speed (180/200/225), Jury Charge (Legal Opinion) at each speed (180/200), and Literary at 180 with 95 percent accuracy (all five-minute tests). Computer-aided transcription systems, word processing systems, and video applications for the court reporter are also covered in this course. Corequisites: CORT 2022, CORT 2025

CORT 2050 Professional Certification Review
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

Students receive intense review in preparation for the court reporting exam given in May and November. Prerequisites: CORT 2010 Corequisites: CORT 2022, CORT 2110

CORT 2070 Court Report Internship
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

The student practices the skills needed to be a court reporter (freelance official, closed-captioned, conference). More than 60 clock hours of practical experience, on an individual basis, in the courtroom or in a deposition situation under the supervision of a working court reporter are required. From this actual experience, the student submits an acceptable 50-page transcript. This internship commences after the student is writing 200 words per minute. Prerequisites: CORT 2022 CORT 2025, LEGL 2030

CORT 2110 Court Reporting Applications I N
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

The student receives instruction into forms and formats for different reporting situations; reporting interrogatories, statements, depositions, court proceedings; set up of court reporter's office and records kept for both official and freelance reporting; developing a reference library; writing legal cites, forms of address, handling read backs; handling exhibits; testifying from past proceedings; notary depositions, preliminary hearings, motions, pretrial hearings, coroner inquests, trials, petitions, conventions, and meetings. Corequisite: CORT 2025

CORT 2120 Court Reporting Applications II
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course builds on the rules and concepts learned in CORT 2110. Applying the information contained in CORT 2110, students will engage in simulated and mock depositions, trials and conference reporting. Students will learn to utilize real-time writing techniques used in educational reporting and be exposed to the skills necessary for the closed-captioning market. Prerequisite: CORT 2010, CORT 2110 Corequisite: CORT 2022

COMPUTER ENGINEERING TECHNOLOGY

CPET 1104 Microcomputer Applications for Technicians and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course introduces the student to the hardware components and operation of a microcomputer. Additionally, the student studies various application programs that are essential in engineering technology coursework, as well as useful in an engineering technician's job tasks. Windows-based applications include word processing, spreadsheet, and electric circuits simulation. An introduction to the C++ programming language is also included in this course. Corequisite: DSPM0800 or permission of program coordinator.

CPET 1124 Digital Circuits and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course presents procedures for analyzing and designing digital circuits. Topics included are number systems, Boolean algebra, Karnaugh mapping, combinational logic, arithmetic circuits, flip-flops, counters, and sequential circuits. In the laboratory, students verify digital principles by constructing and testing various digital circuits. Prerequisite: ELET 1110

CPET 1144 C++ For Technicians and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This introductory course in the C++ programming language begins with an explanation of a general program development procedure using an Integrated Development Environment (IDE). Some specific C++ language elements covered include looping statements, functions, arrays, input/output operations, and classes. Emphasis is placed on effective program development practices, including flowcharting and debugging techniques. Prerequisite: CPET 1104 Corequisite: MATH 1740

CPET 1901-1908 Technical Scholarship Program I - VIII
4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

Students work part-time at their sponsoring companies training in areas related to their majors. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair, may take as many as eight courses

CPET 1931-1933 Co-operative Education Work Experience I - III
3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

CPET 1941-1943 Cooperative Education Work Experience IA - IIIA

4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

CPET 2114 Microprocessor Applications and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

Students use a single-board microcomputer and a PC to investigate the organization and operation of a microprocessor and various microcomputer system components. Students interface application hardware to the computer and write their own driver software. Programs are written in assembly language. Prerequisite: CPET 1124 Corequisite: CPET 1144

CPET 2214 Microcontroller Systems Design and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course presents the essential elements required to design and analyze microcontroller-based systems (embedded systems). Motorola and Intel microcontroller chips are covered. Students use a personal computer as a single-user microcontroller development station when designing their hardware/software projects. All students are required to construct a working microcontroller-based system and develop software to control the system. Student software is written in assembly language and C. Prerequisite: CPET 2114

CPET 2314 Digital Communication Systems and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

Data communications involving the transmission and reception of digital information is covered in this course. Topics included are the telephone system, digital codes, transmission protocols, error detection and correction schemes, RS232 and other data transmission interfaces, modems, and network communications. Laboratory assignments provide experience with circuits used in data and network communications. Technical writing is stressed in this course with the requirement of written reports. Prerequisite: CPET 1124 Corequisite: CPET 1144

CPET 2324 Computer Networks and Systems and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the technical aspects of computer networks. Course topics include the OSI Reference Model, the hardware and software components required to implement some of the IEEE 802 local area network (LAN) protocols, and TCP/IP. Laboratory assignments make use of network test equipment and give the student experience with Windows peer-to-peer and client/server networking. Corequisite: CPET 2314

DIETETICS/NUTRITION

DIET 1110 Techniques of Food Preparation

T

4 Credit Hour(s) 2 Lecture Hour(s) 6 Lab Hour(s)

This course introduces students to principles and procedures related to food selection, preparation and services for family and social occasions, and develops skills in planning menus for various types of commercial, industrial and school service.

DIET 1130 Quantity Cookery

T

6 Credit Hour(s) 1 Lecture Hour(s) 150 Lab Hour(s)

This course is a study of institutional food service with 150 hours practical experience in preparing and serving large food quantities with 1 hour lecture per week. Prerequisite: DIET 1110 Techniques of Food Preparation and Service and DIET 1820 Equipment, Care, Safety and Layouts, or permission of instructor

DIET 1210 Nutritional Care Lab I

T

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course is held concurrently with Principles of Nutrition in providing coordinated and continuing nutritional care in health-delivery systems and is designed for Dietetic Technician students.

DIET 1220 Nutritional Care Lab II

T

2 Credit Hour(s) 0 Lecture Hour(s) 90 Lab Hour(s)

This laboratory is taught concurrently with Medical Nutrition Therapy and designed for Dietetic Technician students. It is 90 hours of supervised practice in the clinical setting of hospitals, extended care facilities, community health agencies and school lunch programs. Prerequisite: DIET 1210 Nutritional Care Laboratory I or permission of instructor

DIET 1310 Principles of Nutrition

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an introduction to nutrition, including nutritive value of foods, factors influencing body food requirements, their importance in promoting health and preventing disease and the body processes, and their relation to total nutrition. Nutritional requirements throughout the human life cycle, with attention to various food cultures and application of nutrition requirements to the basic food groups, are discussed.

DIET 1330 Medical Nutrition Therapy

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of medical nutrition principles, with focus on the human body, various medical and surgical problems, and the dietary modifications necessary for unusual and abnormal cases. The student gains practice in writing routine hospital diets, planning and calculating special diet prescriptions, and analyzing the procedures, organization and functions of a hospital or other healthcare facility. Prerequisite: DIET 1310 Principles of Nutrition or permission of instructor

DIET 1350 Nutrition for Child Care

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course covers the basic principles of nutrition and the nutritive value of food, with emphasis placed on children's nutritional needs, including the influence diet has on physical and mental development. Attention is given to the practical problems faced in assisting children to develop better attitudes and dietary habits.

DIET 1360 Community Nutrition

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Nutritional practices of various ethnic, age and socio-economic groups and study of the community and agencies concerned with meeting the needs of these groups. Prerequisites: DIET 1310 Principles of Nutrition Concurrent enrollment in DIET 2920, Nutritional Clinical II

DIET 1370 Advanced Nutritional Care

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course presents a study of the nutrients and their utilization in the body. Nutrition care for diseases and health conditions, which include stress conditions, liver and kidney disease, eating disorders, mental health and disease of infancy and childhood. Documentation of nutrition care given and quality assurance in nutrition components are included. Prerequisites: DIET 1330 Medical Nutrition Therapy and DIET 1920 Dietetic Field Experience I

DIET 1810 Sanitation Measures

T

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of the practical problems in protecting health, preventing food spoilage, and covering sanitation laws and regulations. This course includes the control of bacteria in the foodservice industry through good housekeeping practices, sanitary food handling, and personal hygiene using the HACCP approach to food safety. A Food Service Sanitation Certificate will be awarded to successful completers of the national exam.

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

DIET 1820 Equipment Layout/Safety T
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)
This course is a study of the use, operation, cleaning, care, space and equipment requirements, and arrangements, which provide an efficient operation in coordinating with job descriptions appropriate for institutional food services. Aspects of kitchen receiving and storage, dining room equipment, capacity rating and the principles of furnishing food service units are included.

DIET 2010 Dietetics Field Experience I T
3 Credit Hour(s) 1 Lecture Hour(s) 10 Lab Hour(s)
Lecture, 135 hours supervised observation, and practical experience in selected facility provide the student with firsthand understanding of management systems in selected food services. This course covers use, care, space requirements, and arrangement for efficient operation in selected food service. Corequisite: DIET 1130 Quantity Cookery

DIET 2020 Dietetics Field Experience II
3 Credit Hour(s) 1 Lecture Hour(s) 10 Lab Hour(s)
Approximately 135 hours of practical experience give the student a firsthand understanding of management systems in selected food services. Reports and evaluation are required. Corequisite: DIET 2710 Catering and DIET 2510 Quantity Food Service Management I

DIET 2030 Dietetics Field Experience III
4 Credit Hour(s) 1 Lecture Hour(s) 13 Lab Hour(s)
180 hours of practical experience give the student a firsthand understanding in a selected food services management system. Corequisite: DIET 2520 Quantity Food Service Management II

DIET 2510 Quantity Food Management I
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a study of the types of food service systems, planning, and control of quantity food production. This course includes menu planning, purchasing, storage, sanitation and physical facilities. Corequisite: DIET 2020 Dietetic Field Experience II or DIET 2910 Nutrition Clinical I

DIET 2520 Quantity Food Management II
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
As an introduction to food service management this course includes qualities and responsibilities of an effective food service manager; organization of a food service operation; technique of management; selection and training of personnel; quality, production and cost control; and ethics of buying practices. This course also includes a review of purchasing procedures, methods and selection of food by written specification and the consumer. Prerequisite: DIET 2510 Quantity Food Service Management I; Corequisite: DIET 2030 Dietetic Field Experience III

DIET 2610 Health Care Delivery Systems T
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)
As an introduction to health care fields this course includes federal, state, and local organizations and finance and delivery of health care services. Emphasis is on the professional disciplines in health care.

DIET 2910 Nutrition Clinical I T
3 Credit Hour(s) 0 Lecture Hour(s) 9 Lab Hour(s)
Supervised experience in patient care areas of designated health care facilities. Assigned experiences are designed to complement and reinforce the knowledge gained in Advance Nutritional Care. Prerequisite: DIET 1330 Medical Nutrition Therapy; Corequisite: DIET 1340 Advanced Nutritional Care

DIET 2920 Nutrition Clinical II T
4 Credit Hour(s) 0 Lecture Hour(s) 13 Lab Hour(s)
Continuation of Nutrition Clinical I with emphasis on staff performance with students functioning as staff members in patient care and nutrition education corresponding with Community Nutrition. Prerequisite: 2910 Nutrition Clinical I; Corequisite: DIET 1360 Community Nutrition

DIET 2980 Special Studies in Nutrition, Food Services and Administration
6 Credit Hour(s) 6 Lecture Hour(s) 0 Lab Hour(s)
Studies in particular areas of nutrition, foods or food service administration are included in this course. Independent study or class sessions cover such topics as community nutrition, geriatrics, food stamps, school lunches, gourmet foods of various regions, recipe development and various management problems. 1-6 hours lecture.

DIET 2990 Food Service Seminar T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course gives a review of new trends in the food service field and their implications for food service operations. Opportunities for employment and advancement are discussed in addition to the procedures relating to application and acceptance of supervisory positions. 1-3 hours lecture.

DEVELOPMENTAL MATH

DSPM 0700 Basic Math
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course covers basic mathematical topics of whole numbers, fractions, decimals, signed numbers, powers and roots, percents, proportions, systems of measurement, elementary geometry, graphical interpretation, elementary statistical concepts, estimation and problem solving. Prerequisite: Appropriate placement

DSPM 0800 Elementary Algebra
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course covers elementary algebraic topics such as solving linear equations, using proportions to solve problems, laws of exponents, basic operations with polynomials, scientific notation, roots and radicals, formulas and applications, and factoring polynomials. Prerequisite: DSPM 0700 or appropriate placement

DSPM 0850 Intermediate Algebra
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course covers intermediate algebraic topics such as solving quadratic equations, simplifying rational expressions, exponential expressions, linear inequalities, graphing linear equations, and solving systems of linear equations. Prerequisite: DSPM 0800 or appropriate placement

DSPM 0870 Elementary Algebra/Intermediate Algebra
6 Credit Hour(s) 6 Lecture Hour(s) 0 Lab Hour(s)
This course is a fast-paced review of elementary and intermediate algebra, including operations with signed numbers, solving linear equations, using proportions to solve problems, laws of exponents, basic operations with polynomials, scientific notation, roots and radicals, formulas and applications, factoring polynomials, solving quadratic equations, simplifying rational expressions, exponential expressions, linear inequalities, graphing linear equations, and solving systems of linear equations. Prerequisite: DSPM 0700 or appropriate placement into DSPM 0800. Satisfactory completion of high school Algebra II is recommended. To enroll, contact the Developmental Studies office.

DEVELOPMENTAL READING

DSPR 0700 Basic Reading
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course provides a review of phonetic and vocabulary skills with an emphasis on reading for comprehension. Attention is given to pronunciation, spelling and use of the dictionary. Prerequisite: appropriate placement

DSPR 0800 Developmental Reading
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course provides diverse opportunities for increasing reading efficiency. Emphasis is given to vocabulary, comprehension, critical reading, flexibility of reading rates and bibliographic skills. Prerequisite: DSPR 0700 or appropriate placement

DEVELOPMENTAL STUDY SKILLS

DSPS 0800 Developmental Study Skills **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course acquaints students with study skills and prepares them to integrate traditional study skills with college content areas. Topics include time management, textbook studying, preparing for and taking exams, research paper/report writing, note-taking, using the library, career exploration, and learning about college resources. Prerequisite: appropriate placement or permission of Developmental Studies Department Chair

DEVELOPMENTAL WRITING

DSPW 0700 Basic Writing **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course offers a review of basic grammar, usage, spelling, punctuation, and other mechanics of English with an emphasis on paragraph writing. Prerequisite: appropriate placement

DSPW 0800 Developmental Writing **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is a course in basic essay writing. Topics include unity, organization, and development of essay, rhetorical modes, grammar and mechanics. Prerequisite: DSPW 0700 or appropriate placement

EARLY CHILDHOOD EDUCATION

ECE 1010 Intro to Early Childhood Education **T** **2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

An introduction to the early childhood profession including an emphasis on professionalism and developmentally appropriate practice. Includes an overview of the history of early education, theoretical program models, different types of early childhood programs, community resources, professional organizations, and contemporary trends and issues in programs for children ages birth to nine. Field experiences required.

ECE 2010 Safe Healthy Learning Environment **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of the basic principles and practices of safety, health and nutrition as they relate to the early childhood setting, home, and community for children ages birth to nine. Also included is a study of principles of creating appropriate learning environments for young children. Field experiences required.

ECE 2015 Early Childhood Curriculum **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of developmentally appropriate practices and teacher's role in supporting development of young children ages birth to nine. An emphasis on curriculum planning, including goals, environment, roles of teachers and parents, materials and settings. Field experiences required. Prerequisite: ECE 1010, ECE 2010 or department approval

ECE 2020 Infant, Toddler, Child Development **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The study of the physical, cognitive, social, and emotional aspects of young children and their application to the care, guidance, and development of the child, birth to nine. Laboratory observation and interaction. Prerequisite: ECE 1010, ECE 2010 and completion of all developmental requirements for reading, writing, and learning strategies or departmental approval

ECE 2030 Infant and Toddler Care **3 Credit Hour(s) 3 Lecture Hour(s) Lab Hour(s)**

A course on the care and education of infants and toddlers, birth to age three in group settings (i.e. child care centers, family child care homes, Early Head Start). Includes rationales and strategies for supporting the whole child including cognitive, language, social-emotional, and physical development in a safe, responsive environment. Emphasis is on relationship-based care and education, with special attention to the unique environmental aspects of programs for the child under three.

ECE 2040 Family Dynamics and Community Involvement **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The role of the family and community in the physical, cognitive, social and emotional growth of the child in a diverse society is explored. Includes benefits of and strategies for developing positive, reciprocal relationships with families in an early childhood setting ages, birth to age nine. Field experiences required. Prerequisite: ECE 2015 or department approval

ECE 2050 Psychomotor Development **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course discusses the major theories of psychomotor development and the application to the development of the young child ages birth to nine. Particular emphasis is placed on the positive development of motor skills. Field experience required. Prerequisite: ECE 2020 or department approval

ECE 2060 Development of Exceptional Children **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Explores practices that early childhood professionals can apply to develop a more inclusive and accessible environment for all children ages birth to nine. Provides students with skills to include children of all abilities through appropriate arrangement of the environment. Includes strategies for developing strong relationships with families and other community agencies. Field experience is required. Prerequisites: ECE 2020 and ECE 2040 or departmental approval

ECE 2095 School Age Curriculum **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of developmentally appropriate practices and the teacher's role in supporting development of children, ages five thru fourteen. An emphasis on planning curriculum that is based on the needs of school-age children, setting goals, planning the environment, selecting materials and roles of staff and parents. Field experiences required.

ECE 2100 The Mentoring Teacher **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of the philosophy, principles and methods of mentoring adults who have varying levels of training. Emphasis will be on the role of mentors as facilitators of adult learning while simultaneously addressing the needs of children, parents, and other staff. Prerequisite: department approval

ECE 2120 Administration of Child Care Centers **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of organization and administration practices applicable to the child care center. Topics of special consideration will include leadership, enrollment and public relations, staff management, financial management, facilities, regulations, parent relations, and program development. Field experiences required.

ECE 2130 Practicum in Early Childhood I **2 Credit Hour(s) 0 Lecture Hour(s) 45 Lab Hour(s)**

This course is a supervised practicum with a minimum of 15 clock hours in class and 45 clock hours in an early childhood program offering practical experience in a learning environment for young children. It involves a study of the physical and human qualities that combine to create a classroom that is safe and healthy, and promotes optimum learning.

ECE 2140 Early Childhood Clinical II **2 Credit Hour(s) 0 Lecture Hour(s) 45 Lab Hour(s)**

Supervised pre- or in-service practicum. Minimum of 45 clock hours must be completed in an NAEYC, NAFDC, or NSACA accredited childcare agency, or TECTA/Departmental approved site. Prerequisites ECE 1010, 2010, 2020 and 2040

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

ECE 2800 Infant/Toddler Care Practicum**3 Credit Hour(s) 0 Lecture Hour(s) 100 Lab Hour(s)**

Approximately 100 hours of supervised experience in a child care setting with infants and toddlers and in seminar are required. Corequisite: ECE 1650 Infant Toddler Care and departmental approval

ECE 2810 Early Childhood Education Practicum**3 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)**

This course offers 60 hours of practical experiences relating to content in other required early childhood courses. Prerequisites: ECE 1010, and ECE 1240 or ECE 1370, Corequisite: ECE 2900

ECE 2900 Early Childhood Education Seminar**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Current theories, methodologies or other special topics for early childhood education personnel are covered.

ECE 2990 Early Childhood Education Workshop**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to address specific topics of interest to early childhood education.

ECONOMICS**ECON 1000 Principles of Banking****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This introductory course presents commercial banking as an industry and an occupation. Bank functions, services, and job opportunities are presented in a broad and descriptive perspective. Prerequisites: DSPM 0700, DSPW 0700, DSPR 0700

ECON 1100 Money and Banking**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

What is money? From where does money come? How and why do we use money? These questions and the role of commercial banks, other financial intermediaries, and the Federal Reserve System are all addressed. Prerequisites: DSPM 0700, DSPW 0700, DSPR 0700

ECON1931-1933 Co-operative Education Work Experience I - III**3 Credit Hour(s) 0 Lecture Hour(s) 255 Lab Hour(s)**

Work Experience I introduces the student to the employer/employee relationship in a financial institution environment. Under close supervision, the student engages in industry-related work and activities, and gains an awareness of the importance of work in our society. Prerequisite: Completion of one semester of course work

ECON 2010 Principles of Macroeconomics**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The study of economics necessitates an understanding of the principles, that govern the operation of the economic system. This course focuses attention on the aggregate (macro) relationships and gives attention to the central problems of economic organization, the functioning of the price system, the economic role of government, the determination of national income and a brief glance at economic policy.

ECON 2020 Principles of Microeconomics**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Attention is focused on the micro concept of economic analysis and primary attention is given to the theory of the firm and partial equilibrium problems arising within any enterprise economy. Attention is also given to government regulation of business, the theory of income distribution as it pertains to the determination of wages, rent and profits, and international trade.

ECON 2030 Survey of Economics**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a survey of economics. It has been designed as a beginning economics class. It covers how modern economics evolved, supply and demand, national income accounting, money and banking, market structures and contemporary economic issues. It presents both a macro and micro approach to economic issues. This course may not be used as a substitute for ECON2010 or ECON2020.

ECON 2500 Bank Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

New trends that have emerged in the philosophy and practice of bank management are presented. Additionally, the study and application of banking principles provide new and experienced bankers with a working knowledge of contemporary bank management. Case studies are used to supplement the textbook.

ECON 2505 Commercial Lending**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

An introduction to the commercial banking industry leads students to the examination of an element of the important credit function of banking and commercial lending. To whom, for what amount and purpose, and on what basis and terms are concerns demanding considerable attention. Types of loans, customers, collateral, policies, procedures, and legal parameters are emphasized.

ECON 2900 Electronic Payment Systems**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a comprehensive survey of the major electronic payments systems currently available for the electronic business. Students will learn the characteristics of Secure Electronic Transactions (SET), Digital Cash Systems, and the role of Digital Certificates. This course provides the background needed to understand how different types of payment systems work, as well as how to select an appropriate payment system and financial software to best suit a specific company's needs. Prerequisites: ENGL 1010, ISDS 2605, ITEC 1001, or permission of an advisor

EDUCATION**EDUC 1010 Introduction to Education****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course offers a survey of the profession of education, its history in the United States and influence as a social institution, philosophical schools of thought, and an examination of current issues, including educational reform. Supervised teaching experience.

EDUC 1310 Introduction to Exceptional Learning**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a survey course emphasizing the identification, classification, and educational implications of exceptional learners. Students are exposed to the development of IEPs in the required supervised field experience.

EDUC 1700 Parenting Skills**1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)**

Application of state-of-the-art educational technology to the field of parenting education is presented. Emphasis is on family likenesses, common parenting skills and concepts in a democratic society, and modification for particular populations of parents to improve communication at home and in a network for prevention through a synergistic learning experience.

EDUC 1990 Education Seminar**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of current theories, methodologies, or other topics in education.

EDUC 2010 Child Psychology**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an exploration of child development from conception through puberty. Emphasis is on theories, concepts, practices and research applications integrating psychological, sociological, and medical areas as related to cognitive, physical, moral, social, and emotional growth. Insights into behaviors, self-awareness, and education of the developing child are presented. Observation and practicum.

EDUC 2050 Schooling in Multi-Cultural Settings T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces the student to roles and responsibilities of teachers in multicultural settings, the class evolution of educational policies and practices with attention to the organization and structure of schools and multicultural issues, and the study of schools as cultural systems.

ELECTRICAL ENGINEERING TECHNOLOGY**ELET 1050 Programmable Logic Controllers and Lab****4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

Students study the hardware configuration, I/O modules, memory organization, and instruction set of a major manufacturer of programmable controllers. Students study ladder logic and apply it to several industrial control applications such as motor controls, storage tanks, conveyors, and industrial panels, and displays. The course content includes the use of WINDOWS-based programming software, a human-machine interface, and industrial networks. Prerequisite: ETEC 1031 or CPET 1124 or departmental approval

ELET 1060 Advanced Programmable Logic Controllers and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This advanced course in PLCs will cover PLC memory organization, data types, math and other advanced instructions, configuring analog I/O, analog I/O applications, sampled data, open and closed loop control systems, PID instructions, industrial networks, human-machine interface concepts, message instructions, and Windows-based programming software. Prerequisite: ELET 1050 or ELET2201 or departmental approval

ELET 1110 Electric Circuits I and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

Electric Circuits I introduces the student to the fundamental principles of DC circuits. Emphasis is placed on the solution of circuit problems using series and parallel circuit definitions, Ohm's law, Kirchhoff's laws, and equivalent circuits. Inductance and capacitance are introduced as time constants in transient circuits. The course concludes with network analysis techniques including loop equations, Thevenin's theorem, and superposition. Prerequisite: DSMP0850 and approval of program coordinator

ELET 1120 Electric Circuits II and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

Electric Circuits II introduces the student to the fundamental principles of AC circuits and polyphase circuits. Students study sinewave voltages, phase shifts, and phasors. Students analyze steady state AC circuits and apply circuit analysis techniques to impedance networks. Students then study the frequency dependence of impedance and the design of resonant circuits. The course covers the basics of three-phase circuits. Prerequisites: ELET 1110, MATH 1740 Corequisite: MATH 1750

ELET 1901-1908 Technical Scholarship Program**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

Students work part-time at their sponsoring companies training in areas related to their majors. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair, may take as many as eight courses

ELET 1931-1933 Co-operative Education Work Experience I - III**3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

ELET 1941-1943 Cooperative Education Work Experience IA - IIIA**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

ELET 2111 Power Technology and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

In Power Technology, students study the theory of operation of electromechanical devices. The course includes DC shunt, series, and compound generators and motors, the basics of three-phase circuits, three-phase rectification, SCR and TRIAC motor controls, transformers, AC alternators, the theory of rotating magnetic fields, induction motors, synchronous motors, and various small AC motors. Students conduct laboratory exercises on the major types of motors, generators, and transformer connections. Prerequisite: ELET 1120

ELET 2112 Digital Industrial Controls and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

Digital Industrial Controls applies the fundamental principles of digital logic circuits to instrumentation and control in industrial environments. Digital logic families are discussed with emphasis on CMOS. Basic logic gates, timers, counters, multiplexers, demultiplexers, and magnitude comparators are some of the CMOS integrated circuits covered. Applications include signal conditioning, digital interfacing, voltage translation, and conversion of ladder logic to solid-state logic. Motor speed controllers and switching power supplies are discussed using 555 timers. Prerequisites: CPET 1124 and TLET 1010

ELET 2201 Programmable Controllers and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

In Programmable Controllers, students study the hardware configuration, I/O modules, memory organization, and instruction set of an industry standard programmable controller. Students study ladder logic and apply it to several industrial control applications such as motor controls, storage tanks, conveyors, and industrial panels and displays. The course includes an introduction to communications and industrial networks. Laboratory exercises include programming the programmable controllers with Windows-based industry standard programming software. Prerequisite: CPET 1124 or departmental approval

ELET 2202 Microprocessor Based Instrumentation and Control and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

Microprocessor Based Instrumentation and Control includes the principles of interfacing a microcontroller to industrial sensors and electromechanical devices. Emphasis is placed on applications in automation and robotics. Students study the instruction set of a microcontroller, programming peripherals, and communication protocols. Applications discussed include stepper motor and servo motor speed, direction, and position control. Laboratory exercises include assembly language programming on microcontrollers. Prerequisites: CPET 1104, ELET 2112

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

ELET 2203 Robotics and Industrial Control Systems and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

Robotics and Industrial Control Systems covers the essential topics of open and closed loop control systems. Emphasis is placed on automation and robotics. Signal conversion techniques are covered: A/D, D/A, frequency-to-voltage, voltage-to-frequency, V/I, and I/V. Position and velocity sensors such as optical shaft encoders and synchros are covered. Stepper motors are covered in detail. Closed loop control system topics include proportional, integral, and derivative control modes. Laboratory exercises include servo robot programming, combination analog and digital speed and position controllers, and process simulation and tuning using a programmable controller. Prerequisites: CPET 1104, ELET 2112

EMERGENCY MEDICAL SERVICES

EMT 1090 Introduction to EMT

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course covers fundamentals of Basic Life Support as used by the Emergency Medical Technician (EMT). Instruction and certification of Cardiopulmonary Resuscitation (CPR), interfacing basic CPR with advanced life support methods such as automatic defibrillation, mechanical airway adjuncts, etc. are included. An overview of the Tennessee EMS regulatory structure, including Tennessee Department of Emergency Medical Services Rules and Regulations is provided. Also instruction on the Memphis-Shelby County EMS system, personal safety and EMS equipment are covered. Corequisite: EMT 1040

EMT 1040 Basic Medical Technology I

7 Credit Hour(s) 7 Lecture Hour(s) 0 Lab Hour(s)

Fundamentals of pre-hospital emergency care used by the Emergency Medical Technician (EMT) are covered in this course. This course includes recognition and treatment of medical emergencies. This course includes recognition and treatment of medical emergencies. Basic anatomy and physiology and patient assessment are covered as well as ambulance operation. Corequisite: Intro to EMT 1030 formerly 1090

EMT 1050 Basic Medical Technology II

7 Credit Hour(s) 7 Lecture Hour(s) 0 Lab Hour(s)

This course is a continuation of Basic Emergency Medical Technology and further develops the student's knowledge of pre-hospital care used by the Emergency Medical Technician (EMT). Recognition and treatment of traumatic emergencies are covered. Also, instruction in EMS operation is included. Prerequisites: EMT 1040 Basic Emergency Medical Technology I and EMT 1030

EMT 2010 Paramedic I

17 Credit Hour(s) 17 Lecture Hour(s) 0 Lab Hour(s)

This course of study follows the fundamentals of the 1999-2000 Paramedic Curriculum with emphasis on preparatory aspects of out-of-hospital emergency medical care, advanced airways care, advanced techniques of patient assessment and ambulance operations. The student will begin clinical situation competencies limited only to the observation aspects of emergency medical care. The student will undergo an evaluation at the end of the semester for cognitive, psychomotor and affective competency. The purpose of the evaluation is to determine if the student is competent to proceed to Paramedic II and the beginning of the participation phase of clinical experience. Prerequisite: Acceptance into the program

EMT 2020 Paramedic II

17 Credit Hour(s) 17 Lecture Hour(s) 0 Lab Hour(s)

This is a continuation of the study of pre-hospital emergency care used by the paramedic. Emphasis is on trauma management, burn management, understanding and treating endocrine emergencies, abdominal emergencies, anaphylaxis, toxicology, infectious diseases, geriatric emergencies, pediatric emergencies, OB/GYN emergencies, behavioral emergencies, abuse, neglect, and special needs of patients. Hospital and Field clinical experience will begin in this semester and continue until all minimum competencies are successfully achieved. Prerequisite: EMT 2010 Paramedic I

EMT 2030 Paramedic III Hospital and Field Clinical Experience

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

Practical clinical experience in the participation of treatment techniques learned in Paramedic II is presented. Prerequisite: EMT 2020 Paramedic II

EMT 2040 Paramedic IV Ambulance Experience

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

Practical ambulance field experience in the team leadership of treatment techniques learned in Paramedic I,II, and III continues. Prerequisite: EMT 2020 Paramedic II and EMT 2030, Paramedic III Hospital and Field Clinical Experience

ENGLISH

ENGL 1001 English as a Second Language:

Beginner Level

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed for the non-native speaker of English who has little or no competency in spoken and written English. The course includes practice in listening, reading, and writing.

ENGL 1002 English as a Second Language II

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed for the non-native speaker of English who possesses a novice high-to-intermediate level of competency in spoken and written English. The course includes practice in speaking, listening, reading, and writing. Prerequisite: ENGL 1001

ENGL 1003 English as a Second Language III

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed for the non-native speaker of English who possesses a mid-intermediate to advanced level of competency in spoken and written English. This course includes practice in speaking, listening, reading, and writing. Prerequisite ENGL 1002 or equivalent

ENGL 1010 English Composition I

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Through writing compositions and reading essays and short fiction critically, students are taught to organize and develop ideas, using various rhetorical modes and editing techniques. The course focuses chiefly on improving clarity and effectiveness of writing and includes instruction and practice in the research process. Prerequisite: DSPR 0800 and DSPW 0800 or satisfactory performance on the COMPASS or ACT test

ENGL 1020 English Composition II

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

A continuation of English Composition I, this course emphasizes synthesis and analysis and includes the reading of non-fiction essays, poetry, and drama. The course provides instruction in research and documentation skills. Prerequisite: ENGL 1010

ENGL 1065 Introduction to Film

3 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

This course helps students develop a better understanding and appreciation of movies. Lab hours are used for viewing of films. Students observe films more closely and become active participants in the art of the film experience. This course may be used as a Fine Arts and Humanities elective. Prerequisite: ENGL 1010

ENGL 2050 Introduction to Hispanic American Literature I

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

Conducted in English, this course gives students an opportunity to read, discuss, and write about literature, both fiction and non-fiction, produced by Hispanic writers in the U.S. from the 16th century to the present. Prerequisite: ENGL 1010 or instructor's permission

ENGL 2051 Introduction to Hispanic American Literature II

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

Conducted in English, this course gives students an opportunity to read, discuss, and write about literature, both fiction and non-fiction, produced by Hispanic writers in the U.S. in the twentieth century. Prerequisite: ENGL 1010 or instructor's permission

ENGL 2052 Introduction to Hispanic American Literature III

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

This course gives students an opportunity to read, discuss, and write about two novels written by twentieth-century Hispanic authors in the U.S. The viewing and discussion of a full-length film provides further insight into Hispanic culture. The course may be used as a humanities elective. Prerequisite: ENGL 1010 or instructor's permission

ENGL 2055 Technical Writing

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Students in science or engineering technology study the principles of technical writing and produce articles, letters, abstracts, memoranda, oral reports, and a formal research report based on current technical and laboratory experiences. Prerequisite: ENGL 1010

ENGL 2065 Business Writing

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Students examine typical communication problems encountered on the job and study the principles of effective business communication. Through practice in writing letters, memoranda, and reports, students are taught the forms and techniques of successful business writing. This course is required in some majors and serves as a general elective in others. Prerequisite: ENGL 1010

ENGL 2110 American Literature I

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an interpretative study of major American authors and literary achievements from the colonial period through the mid-nineteenth century. Prerequisite: ENGL 1020 English II

ENGL 2120 American Literature II

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an interpretative study of major American authors and literary achievements from the mid-nineteenth century to the present. Prerequisite: ENGL 1020 English II

ENGL 2130 Contemporary American Literature

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an interpretive study of current and recent American authors, emphasizing fiction, drama, and film. Prerequisite: ENGL 1020

ENGL 2210 British Literature I

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course surveys major British authors and their works from medieval beginnings to the time of Samuel Johnson. It examines the development of English verse and prose fiction as art forms. Prerequisite: ENGL 1020 English Composition II

ENGL 2220 British Literature II

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course surveys English authors and literature from Romanticism to the present day. It examines nineteenth century British poetic movements, Victorian Literary refinements, and modern variations. Prerequisite: ENGL 1020 English II

ENGL 2310 World Literature I

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course surveys world literature from antiquity through the Renaissance. It acquaints students with prose, poetry, and drama, while illustrating different forms, cultural ideals and enduring themes. Prerequisite: ENGL 1020 English Composition II

ENGL 2320 World Literature II

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course surveys eastern and western world literature since the Renaissance. It focuses on works that reflect the great ideas, literary movements, and societal changes of modern times. Prerequisite: ENGL 1020 English Composition II

ENGL 2340 World Fiction

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Students read fiction of the 19th and 20th centuries, chiefly by British and European authors (in translation). The purpose of the course is to encourage enjoyment and appreciation of literature and to strengthen

skills in analytical thinking, group discussion, and effective writing. This course may be used to meet the Fine Arts/Humanities requirement for the A.A.S. degrees only. Prerequisite: ENGL 1020

ENGL 2650 African American Literature

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Students study African American literature. Dramatic, lyrical, and narrative works are examined for their enlightenment of African American life and thought and for their historical significance. Prerequisite: ENGL 1020

ENGL 2760 Cultural Confrontation

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an interdisciplinary examination of the causes and effects of conflicts between and within cultures. The course questions the notion of cultural unity, raises issues of cultural identity, and defines categories used to construct cultural positions. Prerequisite: ENGL 1020

ENGINEERING TECHNOLOGY

ENTC 1114 Introduction to Electrical/Electronic Technology

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course introduces the student to the electrical and computer engineering technology fields. Emphasis is on electrical and electronic terminology, measurements, safety, and test equipment usage. Electronic unit analysis, conversion, and functions using the calculator are discussed along with use of the volt-ohm meter and oscilloscope. This course covers career opportunities, industrial safety, review of technical math, problem solving, and is suitable for fundamental applications of electricity and electronics in all disciplines. Corequisite: DSPM0800 or equivalent

ENTC 1124 Engineering Technology Techniques

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course introduces the student to engineering technology and the techniques and methods of technical problem solving. It covers such topics as the field of engineering technology, career orientation, technical math, hand-held calculator usage, applied algebra, trigonometry applications, measurement systems, unit conversions, reading scales, measuring devices, geometry applications, constructing graphs, systematic problem solving and library usage. Corequisite: DSPM 0800

OCCUPATIONAL SAFETY/ENVIRONMENT

ENVI 1023 Hazard Communication and Multimedia Reporting

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course will cover what the Hazard Communications Standard is and how to implement it within the work place. Other forms of required industrial and commercial environmental reporting will be addressed; storm water permits, wastewater discharge permits, hazardous waste permits, air permitting and community toxic chemical release reporting will be covered.

ENVI 2003 OSHA Hazardous Waste Operations

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course is designed to provide the training required under 29 CFR 1910.120 for hazardous waste site personnel. Topics include hazard recognition, hazard control, monitoring, work practices, emergency response, and rights and responsibilities.

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

ENVI 2013 Solid and Hazardous Waste Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is a course covering the generation, storage, transportation and disposal of solid and hazardous waste. Emphasis is placed on waste minimization and treatment, handling procedures, manifestation and contingency planning to ensure compliance with regulatory requirements.

ENVI 2023 Ergonomics**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is the study of harmonizing the work environment to the physical and mental capabilities and limitations of people. The entire work system is examined through the application of industrial engineering, psychological and physiological principles to design jobs and maximize productivity.

ENVI 2033 Fire Protection and Accident Prevention**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of the principles and techniques used in industrial or business related fire, accident and disaster preparedness. It also includes prevention, response and recovery planning, as well as management of the safety program.

ENVI 2044 Industrial Hygiene**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course prepares the student to recognize and evaluate occupational hazards: noise, heat, dust, solvents, ionizing, and non-ionizing radiation. Control measures such as ventilation, personal protection equipment and respiratory protection are covered. Government regulations and their impact upon the industry are addressed. Technical report writing is emphasized and the student is required to write formal reports on projects. Prerequisite: CHEM 1121

ELECTRONIC TECHNOLOGY**ETEC 1011 DC/AC Electronics and Lab****4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course covers the theory of electricity, current voltage and power in series, parallel and complex DC and AC circuits. Electronic component identification, schematic diagrams and the proper use of test equipment are part of the course. Laboratory experiments reinforce the classroom lectures. A working knowledge of high school mathematics is required for this course.

ETEC 1021 Solid State Device and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

The theory and principles of operation of solid state devices such as diodes, transistors, FETs, power amplifiers, operational amplifiers, SCRs, power supplies and regulators are examined in detail in the classroom and laboratory.

ETEC 1031 Digital and Microprocessor**Electronics and Lab****4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

Binary, hexadecimal and base ten numbering systems, basic logic gates such as inverters, latches, flip-flops, counters, adders, decoders and encoders are covered in this course. In addition, microprocessors, software and hardware are studied. Laboratory experiments reinforce class discussions.

ETEC 1041 Electronic Communication and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course introduces the student to AM and FM transmitter and receiver theory. Circuits such as oscillators, RF amplifiers, audio modulators, converters, IF amplifiers, antenna and transmission line theory are examined in the classroom and laboratory.

ETEC 1110 Electronic Circuits I and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This beginning course in electrical circuits covers resistance, current, Ohms law, Kirchhoff's laws, circuit parameters, magnetism and electromagnetic induction, inductance, capacitance, and the introduction of periodic functions. A hands-on approach is emphasized through laboratory exercises in which the student develops skills using the basic test equipment.

ETEC 1113 Electronic Test Equipment**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course will provide the student with the knowledge and skills required to effectively use a variety of electronic test equipment that is used in the testing and repairing of electronic equipment. The types of equipment the student will be exposed to are: Analog and Digital Multi-meters, Oscilloscopes, Function Generators, Impedance Meters, Semi-conductor component testers, and digital logic testers.

ETEC 1120 Electronic Circuits II and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

The second half of a two-semester course on DC and sinusoidal AC circuits. Concepts of circuit analysis learned in Electronic Circuits I are applied to more complex types of series-parallel circuits and, to a limited extent, to circuits where no series or parallel combinations exist. The basic features of ideal transformers are examined. The study of frequency and reactance is continued, and the student examines how an understanding of concepts of reactance and resonance has led to the use of electronic filters to pass or block certain frequencies.

Prerequisite: ETEC 1110

ETEC 1210 Electron Device I and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course introduces the student to commonly used solid state electronic devices such as the silicon diode, bipolar junction transistor and field effect transistor. The diode is examined in its many uses such as rectifiers, clippers, and limiters. The transistor is examined as a single stage amplifier in commonly found configurations and multiple stage amplifiers. The field effect transistor is explored as a single stage amplifier. In addition, simple linear power amplifiers are included in this elementary course.

ETEC 1220 Electron Device II and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course is an extension of Electronic Devices I. It continues to familiarize the student with audio frequency power amplifiers including complimentary symmetry, integrated circuit and CMOS power devices. In addition, it includes devices such as operational amplifiers, SCRs, photocell, triacs, UJT, speed control circuits, voltage regulators, both series and shunt, and switching regulator circuits. Students examine the devices and circuits in both classroom and laboratory experiments.

Prerequisites: ETEC 1110, ETEC 1210 ETEC 1310

ETEC 1310 Digital Circuit I and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

Numbering systems, basic logic gates, and flip-flop circuits associated with microcomputers are explored in this course. Included is the use of truth tables, logic diagrams, and Karnaugh maps for circuit reduction. Laboratory experiments reinforce the material presented in lecture and provide hands-on experience with logic circuits and pertinent test equipment.

ETEC 1320 Digital Circuit II and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course continues with the basic logic gates used in microcomputers, such as counters, shift registers, encoders, decoders, and analog to digital converters. In addition, it introduces the student to the complete microcomputer. The assembly language instructions are examined as well as memory expansion and peripheral devices. This course familiarizes the student with the essentials of programming and interfacing the microcomputer. Prerequisite: ETEC 1310

ETEC 1614 Problem Solving for Lineworkers**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course focuses on math concepts related to electrical distribution. The course encompasses the fundamentals of applied algebra, applied geometry, applied trigonometry and use of the electronic calculator.

ETEC 1615 Electrical Circuits for Lineworkers**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course provides the student with an introduction to simple direct current (DC) and alternating current (AC) series and parallel circuits necessary for utility line workers. Ohm's Law, voltage, current, resistance, electrical power, capacitance, inductance, reactance, impedance, transformers, single-phase circuits and three-phase circuits are also covered in this course. Laboratory experiments using appropriate measuring devices and performing appropriate calculations to determine various circuit values are designed to reinforce the basic theory covered in the lectures.

ETEC 1616 Applied Fundamentals of Electrical Distribution I**4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)**

This course introduces students to electrical distribution concepts and methods. This course is part of a series of courses designed to qualify individuals to enter a utility line worker apprenticeship program which culminates in qualification as a journeyman line worker. This course provides successful completers with fundamental knowledge and skills related directly to working on utility poles. Students achieve this by developing the knowledge and hands-on skills in climbing techniques, climbing safety and the proper use of tools of the trade.

ETEC 1617 Applied Fundamentals of Electrical Distribution II**4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)**

This course is a continuation of Applied Fundamentals of Electrical Distribution I. It provides students information to continue to develop knowledge and skills directly related to working on utility poles. Students achieve this by continuing to develop knowledge and hands-on skills in climbing techniques, climbing safety and the proper use of tools of the trade. Additionally, students will be instructed in setting and guying poles, hanging single and double cross arms, the use of hand lines, stringing and sagging conductors and the installation and use of pole hardware. Prerequisite: ETEC 1616

ETEC 1618 Theory of Electrical Distribution**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course focuses on the theory of electrical transmission and distribution from the generation of electrical power to the consumer. Topics include generation plants, transmission lines, substations, transformers, electrical services, protective devices and related equipment.

ETEC 1619 Basic Electricity for Electrical Workers**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course is a review of electric circuits with an emphasis on conductors, resistors and power sources. An examination of the relationships among voltage, current, resistance and power will be conducted. Power in transformers and the Edison secondary system are covered. Students will perform laboratory exercises designed to reinforce classroom instruction. These laboratory assignments will include calculating current, and resistance and voltage in series and parallel circuits. Students will also construct series and parallel circuits. Prerequisite: ETEC 1615

ETEC 1620 Advanced Electricity for Electrical Workers**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course begins with a review of DC electric circuits, Ohm's law, Kirchhoff's law, and terminology used. An introduction to the concept of alternating current (AC) with emphasis on sinusoidal waveform and its properties is presented. AC electric circuits containing resistor @, inductor (L), and capacitor © is covered in detail. Voltage and current relationship of a RL, RC, and RLC circuit is covered. Single phase versus three phase calculations such as the relationship between apparent power (VA), real power (N), and reactive power (VAR) are studied. The concepts of power triangle and power factor are covered in detail. An introduction to single phase and three phase transformers used in power distribution is covered. Different types of transformer connections are examined. A basic introduction to single phase and three phase induction motors with emphasis on applications will be covered. Prerequisite: ETEC 1619

ETEC 1901-1908 Technical Scholarship Program I - VIII**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

Students work part-time at their sponsoring companies training in areas related to their majors. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair; may take as many as eight courses

ETEC1931-1933Co-operative Education Work Experience I - III**3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

ETEC 1941-1943 Co-operative Education Work Experience IA - IIIA**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

ETEC 2300 Electronic Communications**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

The student gains skills in circuit recognition, schematic reading, troubleshooting of solid-state and vacuum tube transmitter circuits, R.F. oscillators, harmonic generators, R.F. power amplifiers and audio modulator circuits. The student interprets voltage and resistance measurements to effect repairs. Usage of signal generators, oscilloscopes and frequency counters to analyze circuit failures is emphasized. The student gains the awareness of the usage of transmission lines and their application in communications. Emphasis is placed on the parameters associated with standing waves and the characteristic impedance of a transmission line. Prerequisites: ETEC 1120, ETEC 1220

ETEC 2302 Miniature Component Repair Techniques and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to help the student develop skills and self-confidence for employment in the electronics field. It furnishes the student with proper soldering techniques and helps the student to achieve an understanding of the usage of hand tools and safety precautions. Emphasis is placed on soldering and desoldering electronic components on different types of connections, the printed circuit board, as well as minor printed circuit board repair.

ETEC 2402 Troubleshooting Microprocessor Based Systems and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

With the ever-increasing use of microprocessor based electronic systems, the study of troubleshooting this multibus system in a logical method is becoming a must for modern electronic service personnel. This course examines various tools available for troubleshooting from the oscilloscope and logic analyzers to newer dynamic in-circuit testers. The student troubleshoots a variety of microprocessor based systems. Prerequisites: ETEC 2302

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

ETEC 2403 Video Terminal Maintenance and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

Computer terminals and microcomputers which interface with mainframe computers are numerous in business and industry. This course is a detailed circuit analysis of a computer terminal. Topics include video monitors, keyboards, switching power regulators, microprocessor terminal controllers, and interfacing methods. Emphasis is placed on troubleshooting real world failures. In addition, the student prepares written reports detailing terminal failure, diagnostic methods, initial analysis, service required, and a summary on each unit processed in the lab. A minimum of three reports is required. Prerequisites: ETEC 1320, ETEC 2302

ETEC 2625 FCC License Review**4 Credit Hour(s) 0 Lecture Hour(s) 4 Lab Hour(s)**

Electronic theory needed for successful completion of the FCC license through element three is covered. The student is given a thorough review of electronic theory and a battery of tests similar to those used by the FCC as a preparation for the FCC examination. Prerequisite: advanced standing

ETEC 2814 Servicing and Maintenance of Microcomputer Systems and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course introduces the student to the functional hardware of a complete microcomputer system. Hand tools, test equipment, diagnostic methods, and technical manuals are used in the classroom and laboratory to provide the student with a hands-on approach to the servicing and maintenance of microcomputer systems. Corequisite: ITEC 1004

ETHICS**ETHC 2030 Ethics****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course examines opinions about right and wrong conduct in relation to self, other people, animals, and the environment. Reflections on human values and the basic ethical positions that guide or inform peoples' lives are emphasized. Selected readings from contemporary sources and great moral philosophers are studied. Prerequisite: DSPW 0800, DSPR 0800 or equivalent

T**FINANCE AND INSURANCE****FINR 1611 Principles of Real Estate****4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a basic understanding of real estate and prepares students for the Tennessee Real Estate License Examination. Subject matter includes terminology, ethics, contract laws, mortgages, trust deeds, leases, financing, mathematics, and closing statements. The course consists of 60 classroom hours and is required for pre-licensure of affiliate brokers.

FINR 1612 Real Estate Salesmanship**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course acquaints the student with basic sales techniques that are essential to the marketing of residential real estate. Attention is given to prospecting and qualifying buyers, preparing comparative market analyses, servicing listings, time management, negotiating and closing sales.

FINR 1613 Real Estate Appraisal**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course presents a broad view of the principles, procedures, and theories underlying all appraisals. All types of real property and leases are evaluated using the standard appraisal process with emphasis on residential, small commercial lands and farms. A complete market analysis of each type of property is taught. This course is approved by the Tennessee Real Estate Appraisal Commission.

FINR 1615 Real Estate Finance**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to acquaint the student with terminology, common law precedents, and federal/state statutes relative to the

law of real property. The legal basis and ramifications of real property, contract instruments and ethical conduct as they relate to the business of real estate brokerage are discussed.

FINR 1617 Uniform Standards of Professional Appraisal Practice (USPAP)**1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a focus on the requirements for ethical behavior and competent performance by appraisers which are set forth in the Uniform Standards of Professional Appraisal Practice (USPAP). The role of the appraiser is emphasized and the implied impartiality often associated with this role is examined. The special responsibilities of the appraiser with regard to implied impartiality are explored in detail. This course includes both lectures and discussion. Discussion examples show how the special provisions of uniform standards and the standards rules apply to situations that appraisers encounter in everyday practice. Federal law requires that these standards be used as the basis for State Appraiser License and Certification Programs. Prerequisite: FINR 1613 recommended. This course may be used as an elective in the Business and Commerce Management

FINR 1618 Real Estate Course for New Affiliates**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed for affiliate brokers who receive their Tennessee real estate license after January 1, 1994. The course assists agents to qualify buyers and sellers, maintain a client record base, interact with other agents, and become more proficient with contracts and other listing and selling documents.

FINR 1622 Financial Planning for Supervisors**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course provides supervisors with an overview of basic financial management, with an emphasis on the identification and solution of today's financial issues. Topics include but are not limited to accounting concepts, tools and techniques used to prepare and interpret budgets, the time value of money, inventory control, and departmental allocation of costs. Prerequisite: MGMT 1636. This course may be used as an elective in the Business and Commerce Management concentration.

FINR 2007 Principles of Risk and Insurance**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Nature and handling of risk in personal and business situations are covered in this course. Emphasis is placed on life and health exposures to loss.

FINR 2200 Financial Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of the commercial banking system's role in meeting short-and long-term business demands for funds. Includes a practices and procedures investigation used by other financial institutions in providing credit. The student practices various financial techniques for decision-making including present value calculations and analysis of financial statements. Prerequisites: ACCT 1210 and MATH 1710, or approval of advisor

FINR 2205 Per Financial Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

An analysis of the economic problems that typically affect consumers. Emphasis on individual decision making processes in evaluating needs, wants, and resources and in utilizing resources including time, money, and energy.

FINR 2300 Business Law**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of business law in relationship to commercial transactions, contracts, agency and employer-employee relationships, negotiable instruments and legal procedures. Includes breaches and remedies, product liability, real property, consumer/debtor protection, bankruptcy, personal property, and agency contracts/ torts.

FINR 2400 Investments

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

An introduction to the various investment instruments available: equities (stock), debt (bonds, mortgage-backed), investment companies (mutual funds), and derivatives (futures, options, indexes). Includes an examination of the mechanics of the marketplace and the various sources and types of financial information. There will be a discussion of fundamental and technical analysis. Also, the student will be introduced to the basics of international investing and portfolio management theory. Prerequisites: DSPW 0800, DSPM 0800, DSPR 0800

FIRE SCIENCE

FIRE 1100 Fire Fighting Strategy and Tactics I

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course covers development and implementation of strategic factors in emergency management; development of tactical objectives and an incident action plan; and implementation and use of the Incident Command System as an emergency management tool.

FIRE 1101 Fire Service Instructional Methodology

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course provides an understanding of the training course development process, including development of objectives, instructional activities, instructor guide design, instructional techniques, and evaluation of instruction. This course requires individual participation in lesson plan presentation.

FIRE 1200 Fire Officer I

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course offers an introduction to the principles of organization, communication, group dynamics, leadership, motivation, problem solving, preincident surveys, emergency management, and other topics necessary for an effective fire officer.

FIRE 1201 Fire Officer Leadership

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course focuses on the leadership role of the company officer in the fire service. The course will enable mid-range managers, especially company officers, to be more effective in their roles as leaders.

FIRE 2300 Hazardous Material Team Operations I

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed to prepare hazardous material team members to function safely and as a unit in dealing with incidents. Personal protection and safety, basic physical and chemical properties, container characteristics and basic tactics will be discussed. Emphasis is placed on team operations and use of emergency episode equipment.

FIRE 2301 Fire Inspector I

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course will provide the basic understanding of Fire Inspection principles and Code requirements. Students will meet the requirements as specified in National Fire Protection Association Standard 1031 (Professional Requirements for Fire Inspector I). This course will also provide detailed work to prepare students to take the written Southern Building Code Congress International (SBCCI) Fire Inspector Level I Examination. This course will be accepted to satisfy the state continuing education requirement for state certification inspectors.

FIRE 2302 Developing Fire and Life Safety Strategies

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course presents the foundation of public safety education within the fire organization and the structure of effective safety programs. The course examines structure and presentation techniques that will establish effective public education programs. This course fulfills the state experience requirement for state certification for Public Life Safety Officer I.

FIRE 2400 Hazardous Material Team Operations II

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Training for Hazardous Materials Team Members was developed in response to growing concern over the increased risk of occupational

exposure to toxic substances. The risk has escalated in recent years because of the proliferation of chemical, biological, and other types of hazards. Strategies for effective responses to the countless numbers of hazards posed by new products and combinations of products will be presented. Prerequisite: FIRE 2300

FIRE 2401 Fire Service Budgeting and Financial Management

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course provides fire officers with an applied understanding of the economic environment of the fire service. Students will examine funding and revenue sources; evaluate the different approaches to municipal budgeting; determine the political processes associated with funding; and study the accounting procedures used to administer a final budget. Computer applications will be reviewed and opportunities provided to students in the use of computers within the budgetary process. Through group discussion and case-study approaches, the student will demonstrate a working knowledge of modern fire service financial philosophy. Prerequisite: FIRE 1200 or FIRE 1201

FIRE 2500 Fire Fighting Strategy and Tactics II

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course will provide fire officers with an awareness of the strategic and tactical factors associated with large-scale emergencies. Recent and significant case studies will provide the basis for a "lessons-learned" experience. Role-playing through simulation will provide an opportunity to experience the demands of emergency management and application of command skills in the Incident Command System. Prerequisite: FIRE 1100

FIRE 2501 Fire Protection Systems

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course addresses code applications during construction, liabilities of code enforcement, interpersonal communications, fire protection system components, acceptance testing and maintenance of fire protection systems, residential sprinkler systems, and fire safety education planning. This course stresses conceptual learning dealing with problem solving, mechanical competence, and behavioral approaches. This course can be used to fulfill the state continuing education unit (C.E.U.) requirement for Tennessee State Certified Fire Inspector.

FIRE 2502 Mid-Level Management for Fire Officers

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed for individuals who currently serve or plan to serve in supervisory positions. The course will examine political, social, legal and economic issues that challenge supervisors today and in the near future. Special focus is placed on group problem-solving and creative discovery of solutions to meet modern organizational problems.

FIRE 2601 Arson Investigation

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

An in-depth study in the analysis of fire, arson, and explosion scenes. Emphasis will be placed on the principles and techniques of scene preservation and analysis, management of investigative functions, documentation of the scene, and determination of the cause and origin of fires. Prerequisite: FIRE 2500

FRENCH

FREN 1010 Elementary French I

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Elementary French I introduces students to the basic elements of the French language, including practice in speaking, listening, reading, and writing. Students learn to carry on simple conversations in the present, past, and simple future tenses. Prerequisite DSPW 0800 and DSPR 0800 or equivalent

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

FREN 1020 Elementary French II T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course continues the basic study of French, including practice in speaking, listening, reading, and writing. Students read and write basic everyday French and carry on conversations on everyday subjects. Prerequisites: FREN 1010 Elementary French I

FREN 2010 Intermediate French I T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This sophomore-level language course includes practicing oral skills, building vocabulary, and reading French literature with relative ease. Prerequisite: FREN 1020 Elementary French II

FREN 2020 Intermediate French II T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a continuation of Intermediate French I. It focuses on developing more in-depth language use. Prerequisite: FREN 2010 Intermediate French I

GRAPHIC ARTS

GART 1000 Introduction to the Macintosh Computer
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This class will focus on basic navigation in the Macintosh the desktop, mouse, keyboard, windows, menus, and dialog boxes with a detailed examination of memory, storage, disk organization, aliases and file operations. The Macintosh OS (operating system), fonts and font management, networking, and an overview of graphic file formats will also be covered, as will techniques for solving common software and hardware problems. One Macintosh computer per student is assigned for the course. Prerequisites: All required developmental courses

GART 1002 Type and Layout
4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)
This class will focus on the fundamentals of visual design, layout and mechanical reproduction of printed communications. Topics will include a historical overview of typography and printing, basic principles of composition, a study of type and its architecture, non-digital mechanical preparation, mounting and presentation techniques, and graphic arts terminology, as well as a brief introduction to electronic prepress production using QuarkXPress. Emphasis will be placed on using graphics and typography to effectively communicate a clear message through class projects, discussion and critique. Prerequisites: All required developmental courses; Corequisite: GART 1000

GART 1003 Upgrading and Diagnostics for the Macintosh
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This class is a continuation of material covered in GART 1002. It will cover diagnostics and maintenance of the system software and functional hardware of Macintosh systems. Topics covered will include troubleshooting methods and diagnostic software, system and hardware upgrades, hardware and software specifications, and basic network fundamentals essential to digital prepress production professionals, particularly those working in a service bureau or heavy production environment. Prerequisite: GART 1000

GART 1005 Creativity and Idea Development
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course introduces students to methods of idea generation and problem solving for graphic artists. Students will learn to develop and present creative solutions to design, product development, and communications problems using brainstorming techniques, research, and critical analysis. They will express those ideas using thumbnails, storyboards, graphics and typography to develop communications that are appropriate for targeted audiences based on demographic information and cultural relevance. Corequisite: GART 1000

GART 1040 Scan/Photo Images
4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)
Introduction to photographic image editing and manipulation using Adobe PhotoShop. Emphasis is placed on desktop scanning basics,

color correction and electronic photo retouching, image manipulation, painting images and special effects. Topics include scanning and output resolution, working with clipping paths and using channels and layers. Ethics and copyright laws are also covered in relationship to the use of photographic and scanned imagery. One Macintosh computer per student is assigned for the course. Prerequisite: GART 1000

GART 1050 Electronic Publishing I
4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)
Electronic prepress production of page layouts and documents using QuarkXpress. Emphasis is placed on mastering the basics of QuarkXpress including setting up master pages, importing and formatting text, using tabs and paragraph formats, and working with imported photos and art while learning to create forms, tables and multi-column, multi-page documents. Professional typography and typesetting techniques, file management and publishing excellence will be stressed. One Macintosh computer per student is assigned for the course. Prerequisite: GART 1000

GART 1060 Prepress Production I
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
The printing process, traditional and electronic, will be covered in this class. Students will be exposed to various types of printing and printing prepress production techniques including trapping, stripping, halftones and 4-color process, line screens and resolution. Prerequisite: All required developmental courses

GART 1070 Basic Computer Illustration
4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)
An introduction to computer illustration using Adobe Illustrator. Emphasis will be placed on the creation of object-oriented graphics, line art and technical illustration by mastering the pen tool, using tracing templates, creating and editing display type and type outlines, working with 4-color process and custom spot color, and working with layers and masks. One Macintosh computer per student is assigned for the course. Prerequisites: GART 1000

GART 1200 Graphic Photography
4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)
Photography for graphic artists and others who wish to produce photographs suitable for publishing or photo-illustration work. This course includes the use of basic photographic equipment including the 35mm camera, lenses, light meter, flash, and filters. Emphasis will be placed on choosing a subject, composition, using available light, and choosing film. There will also be instruction on art directing a photo shoot and evaluating and preparing prints and transparencies for use in printed publications. Students must provide their own 35mm camera. Prerequisite: All required developmental courses

GART 1901-1908 Technical Scholarship Program I-VII
4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)
The printing process traditional and electronic will be covered in this class. Students will be exposed to various types of printing and printing prepress production techniques including trapping, stripping, halftones and 4-color process, line screens and resolution.

GART 1931-1933 Co-operative Education Work Experience I - III
3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)
In this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society. Prerequisite: Co-op advisor's approval

GART 1941-1943 Cooperative Education**Work Experience IA - IIIA****4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

In this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society. Prerequisite: Co-op advisor's approval

GART 2000 Professional Practices in the Graphic Arts**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This class will focus on issues relevant to the graphic arts industry, including copyright law and other legal issues, ethics, pricing and marketing artwork, trade customs and professional business practices. Prerequisite: GART 1000

GART 2040 Color and Electronic Imaging**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Introduction to color theory and perception and the use of color in producing electronic images. Students compose original images as they learn advanced features of Adobe PhotoShop. Emphasis is placed on using PhotoShop filters, creating special effects and mastering color control. One Macintosh computer per student is assigned for the course. Prerequisites: GART 1040

GART 2050 Electronic Publishing II**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Advanced methods in electronic prepress production of page layouts and documents using QuarkXpress. This is a project-based course which utilizes skills acquired in GART1050 to create complex multi-page documents. Students will work with style sheets and master pages, learn to monitor font and picture usage, work with custom color specifications and prepare documents for output to film. Emphasis will be placed on proofing, file troubleshooting, file management and production quality. One Macintosh computer per student is assigned for the course. Prerequisite: GART1050

GART 2060 Prepress Production II**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This class will cover file output to film for prepress production. Topics will include trapping, calibration, and quality control, troubleshooting complex files and checking a customer's file. Linking to other high-end systems and their uses will be covered as well. Prerequisites: GART 1070, GART 1040

GART 2070 Advanced Computer Illustration**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Advanced computer illustration techniques using skills acquired in GART 1070 and GART 1040. Students will learn advanced features of Adobe Illustrator and will also learn to create illustrations using a variety of programs in combination. One Macintosh computer per student is assigned for the course. Prerequisite: GART 1070, GART 1040

GART 2099 Portfolio Practicum**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Students will develop, create and produce extended, comprehensive projects which will apply skills acquired in previous classes. The course will include instruction on portfolio development and presentation, visual problem solving and concept development. One Macintosh computer per student is assigned for the course. Prerequisites: GART 1070, GART 2040, GART 2050

GART 2500 Introduction to Interactive Multimedia**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Introduction to interactive multimedia, theory and practice. Emphasis will be placed on conceptualizing and planning interactive multimedia projects, navigation, storyboard preparation and user interface design. Students will learn to produce and prepare graphics and animation, edit sound and script in an interactive program using Macromedia Director in combination with other programs. One Macintosh computer per student is assigned for the course. Prerequisites: GART 1070 and GART 1040

GART 2512 Publishing on the Internet**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This class will cover production and placement of graphic images into electronic documents for display over the Internet. Students will be introduced to the World Wide Web (WWW) and basics of human interface design including creation and placement of icons, preparation of graphic files for use on the WWW including GIF, animated GIF and JPEG formats, Hypertext Markup Language (HTML) tags for establishing links, and creating client-side image maps, tables and frames. Students will create and load a personal web site for display over the Internet. One Macintosh computer per student is assigned for the course. Prerequisites: GART 1070, GART 1040

GART 2516 Motion Graphics I**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Introduction to desktop video post production for small and full screen viewing. Topics will include storyboarding, preparation of video and graphic images for use in video, video editing and creating video editing decision lists, audio editing, transitions and special effects, animation and moving typography. Students will use video and still cameras in the video production process. One Macintosh computer per student is assigned for the course. Prerequisites: GART 1040

GART 2520 Introduction to 3D Modeling**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A course in the creation and manipulation of 3D graphics. Topics covered include the accurate visualization and representation of 3D models, positioning objects in 3-space, light and shadow, positioning of lights and cameras, rendering, creation and application of textures, designing environments, planning and executing in 3D. One Macintosh computer per student is assigned for the course. Prerequisite: GART 1070

GART 2522 Animated Web Graphics with Flash**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

A course in the production of animated graphics for display over the web using Macromedia Flash. Topics covered include: working with vector based drawing tools, symbols, libraries, shape and motion tweening, frame-by-frame animation, buttons, movie clips, masks, working with multiple scenes, adding sound, adding actions to buttons and frames, links and embedding Flash movies into a web page. One Macintosh computer per student is assigned for the course. Prerequisites: GART 1070, GART 2512

GART 2526 Motion Graphics II**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Advanced techniques are used in desktop video post production. This course will expand upon material covered in GART 2516, and will also include creation of video edit decision lists, advanced video editing in Adobe Premiere, and special effects, animation and moving typography using Adobe After Effects. Students will use video and still images to create QuickTime movies suitable for use in interactive multimedia production. One Macintosh computer per student is assigned for the course. Prerequisite: GART 2516

GART 2599 Applied Problems in Interactive Multimedia**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Students will develop and produce interactive multimedia projects using skills acquired in previous classes. Emphasis will be placed on scripting in Macromedia Director for efficient navigation, precise movement and timing. Topics covered will include advanced animation techniques and 3-dimensional graphics and project management for multimedia. It is recommended that this course be taken in the student's final semester. One Macintosh computer per student is assigned for the course. Prerequisite: GART 2500

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

GART 2950 Graphic Arts Internship

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed to give the student supervised work experience in a graphic arts production environment. There will be no less than 225 contact hours for the semester. Prerequisites: 12 credit hours in GART, 2.5 GPA, and department chair approval

PHYSICAL GEOGRAPHY

GEOG 1010 Physical Geography I

T

4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course is the first of a two-semester laboratory science course for non-science majors. It introduces basic concepts of earth-sun relationships, atmospheric and oceanic movements and the fundamental principles of weather and climate.

GEOG 1020 Physical Geography II

T

4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course is a continuation of Physical Geography I. The course explores basic concepts of the earth's physical structure, tectonic activity, local physical geography, and map interpretation.

WORLD GEOGRAPHIC REGIONS

GEOW 1030 World Geographic Regions

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course surveys the interrelationships of spatial location and the major cultures of both developing and industrialized nations of the world. The course examines the geographical characteristics, economics, religions, and philosophies of diverse populations unique to the major geographic regions of the world. Prerequisite: DSPR 0800, DSPW 0800 or equivalent

HISTORY

HIST 1110 Survey of World Civilization I

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

The course traces forms of civilizations from beginnings to 1500. Prerequisite: DSPW 0800, DSPR 0800 or equivalent

HIST 1120 Survey of World Civilization II

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

The course traces forms of civilizations from 1500 to the present. Prerequisite: DSPW 0800, DSPR 0800 or equivalent

HIST 2010 Survey of the United States to 1877

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Students study the history of the United States from discovery to the end of political reconstruction. Prerequisite: DSPW 0800, DSPR 0800 or equivalent

HIST 2020 Survey of the United States since 1877

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Students study the history of the United States from 1877 to the present. Prerequisite: DSPW 0800, DSPR 0800 or equivalent

HIST 2030 African-American History

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

The course surveys the African-American experience from the African background to the present. Prerequisite: DSPW 0800, DSPR 0800 or equivalent

HIST 2040 Women in American History

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

The course is a survey of women's role in American History from colonial times through the 1970s. The accomplishments of those notable women who have made the pages of history texts will be examined. The primary emphasis will be on the lives and activities of the mainstream of American women from slaves and homemakers to wage earners and professionals. Prerequisite: DSPW 0800, DSPR 0800 or equivalent

HEALTH

HLTH 1050 Personal Health

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of personal health including mental health, hygiene, communicable disease, degenerative disease, nutrition, drug use/abuse, and other health related problems. It explores the principles and habits of wholesome living.

HLTH 1100 Children's Health

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of children's health as it relates to optimum growth and development individually and in group settings. Emphasis is on safe environments in the home, family, day care centers, and schools. It includes survey of prevention and control of childhood diseases, nutrition, parent and community education, state health regulations, and available health social services.

HLTH 2210 Health First Aid and Safety

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course explores basic first aid and safety principles and focuses on providing emergency care and accident prevention training in personal, school, home, and family environments. CPR included.

HOSPITALITY MANAGEMENT

HMG 1025 Food and Beverage Preparation I

4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)

Students experience a wide range of food service function types with vegetable, bakery, meat, poultry, fish and shellfish preparation being studied in both lecture and laboratory situations in this course. Students plan and execute a function, with responsibility for all phases of the operation, including preparation, safety, sanitation, recipe determination, staffing, service, cost control, and dining room décor and atmosphere. Each student prepares a comprehensive report of the function.

HMG 1030 Introduction to Hospitality Management

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course provides an orientation to the hospitality industry. This includes an introduction to the structure of lodging food service, and tourism organizations, the role of lodging departments, the future of the industry and career opportunities. Course structure includes lecture, projects, discussion, and guest speakers to learn about opportunities, trends and organizations in the hospitality field. This course has a writing emphasis and will require numerous small written assignments and a minimum of a one project or term paper for understanding and further study of the industry.

HMG 1140 Professional Housekeeping

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

The student receives instruction in both the housekeeping and managerial functions of the professional housekeeper. Additionally, duties and responsibilities, methodology, selection of supplies, care and treatment of the various parts of the facility, equipment care, safety, fire prevention, and health of the housekeeping department are addressed.

HMG 1170 Hospitality Sales and Marketing

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an introduction to the broad scope of hospitality marketing with emphasis on the analysis, structure, and strategy of the travel industry. Budgeting, allocation of resources, market research, media selection and effectiveness of marketing plans are also stressed.

HMG 1200 Lodging Management

3 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)

This course is an introduction to the broad scope of hospitality marketing with emphasis on the analysis, structure, and strategy of the travel industry. Budgeting, allocation of resources, market research, media selection and effectiveness of marketing plans are also stressed. Corequisite: HMG 1200

HMGT 1205 Property Management Systems**2 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

In this laboratory course, students will work with property management system (PMS) software to develop a working knowledge of the proper usage, techniques, capabilities and limitations of these software systems. Time is spent both on campus and at various local hotels learning and using various PMS software packages. Corequisite: HMGT 1200

HMGT 1220 Purchasing and Control**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The student is introduced to control systems and principles of purchasing for food, beverage, and lodging operations. Food specification and grading are emphasized. Inventory levels, receiving, issues are covered. Determination of cost of sales, sales percentages and effectiveness of control systems are studied.

HMGT 1240 Food and Beverage Cost Control**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Students utilize math applications as they develop a thorough background for the hospitality industry's cost control system. The emphasis is on problem-solving as students study the mechanics of determining food costs, sales percentages, mark-ups, cost of goods sold, etc. Emphasis is placed upon the short- and long-term effectiveness of diverse cost control systems as they impinge on the human, material and mechanical structure of an enterprise.

HMGT 1931-1934 Co-operative Education**Work Experience I - IV****3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

In this course students receive supervised part-time employment in lodging, travel planning, and/or food service while enrolled at the college. The office of Cooperative Education makes placement after all requirements for employment are met. Students are required to perform skills needed in the industry and to keep records of their experiences. Prerequisite: Twelve (12) semester credit hours with a GPA of 2.5 or higher

HMGT 2120 Beverage Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The history, identity, and service of wines, beers, and spirits are covered extensively. Basic mixology as well as bar layout, purchasing and specifications, legal restrictions, glassware and supplies, service and control systems unique to beverage operations are studied. The course includes emphasis on the problems of alcohol abuse and the effect of alcoholic consumption on highway safety. A minimum of three written reports is required.

HMGT 2190 Catering/Buffer and Lab**4 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course emphasizes the preparation of cold and hot entrees, salads, garnishments and ice carvings for catering events with substantial attention to practical techniques for the preparation of show pieces. The buffet segment enables the student to plan, organize, and set up a complete buffet. Prerequisite: HMGT 2225

HMGT 2221 Layout, Operations and Maintenance of Hotels and Restaurants**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Problems and considerations of facilities management are introduced to the student in this course. Factors governing the selection, placement, and maintenance of equipment for effective and efficient use in food service and lodging operations are discussed. Students prepare a project of the appropriate equipment, layout, and design of a hospitality facility.

HMGT 2225 Food and Beverage Preparation II and Lab**4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)**

Students experience an in-depth study of all major types of meat cuts, including primal and sub-primal butchery. Students are exposed to how different types of marinades, rubs and cooking techniques affect the texture and flavor of the end food product. Students will also gain a basic knowledge about and application of vegetarian cuisines. Prerequisite: HMGT 1025

HMGT 2230 Legal Aspects of Hospitality Administration**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Students are introduced to the American legal system and basic business law concepts as well as laws unique to the hospitality industry. Selected topics in contracts, torts, and hospitality law are discussed with emphasis on lodging and beverage laws. The case study approach is utilized to afford the student an appreciation of the legal duties of hospitality owners and operators in order to avoid or minimize legal liabilities and exposure.

HMGT 2240 Managerial Accounting for the Hospitality Industry**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Elements of cost and financial statement analysis are studied in this problem-solving-oriented course. Students are acquainted with financial and operating ratios, budgeting, pricing, cost-volume-profit relationship, cost analysis and potentials, cash management, and investment considerations. Prerequisite: ACCT 1210

HMGT 2261 Advanced Food Preparation and Lab**4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)**

Students study and prepare regional, national, or specialty foods to enhance their food preparation skills and knowledge. Particular attention is given to current food trends. Students will plan, cost and design menus. Prerequisite: HMGT 2225

HMGT 2280 Convention and Meeting Planning**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course instructs students in the skills necessary to plan for a one-hour to a one-week or more deluxe conference and/or convention. Course content includes resources, marketing techniques, sales leads, logistics, and follow-up.

HMGT 2510 Introduction to Ice Carving**3 Credit Hour(s) Lecture Hour(s) 3 Lab Hour(s)**

In this laboratory course, students will learn the basic ice carving skills necessary to work toward becoming a professional ice carver. Prerequisite: HMGT 1025

HMGT 2900 Special Topics in Hospitality Management**1-3 Credit Hour(s) 1-3 Lecture Hour(s) 1-3 Lab Hour(s)**

This course is an in-depth study of selected topic(s) in the hotel, restaurant, culinary, and tourism industries. It is designed to reinforce and further develop basic knowledge and skills gained in earlier courses. Departmental approval required. Prerequisite: Departmental approval for registration

HONORS**HONR 1110 Honors: Inquirer I****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is a seminar course for honors and specially admitted students and uses modes of inquiry from the various disciplines. Students will explore with a professor, the community, and visiting guest lecturers a selected theme. The process of reflecting, researching, analyzing, evaluating, and presenting is as important as the content. Each student will complete a thematic inquiry project and publicly present it to the college community during Honors Week.

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

LANDSCAPE AND TURFGRASS MANAGEMENT

HORT 1000 Horticulture Plant Science

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course offers the basic plant information needed for those persons working in the landscape industry. Topics covered are elementary plant physiology, plant soils and nutrition, and propagation techniques.

HORT 1100 Soil And Water and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course covers the physical and chemical properties of soils, including soil texture, structure, density, soil water, and drainage, cation exchange capacity, pH, and soil surveys.

HORT 1200 Horticultural Pest Management

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Through physical example and lecture, the student is familiarized with the most common insects, diseases, and weeds. An overview of their management by the use of application and integrated biological techniques is presented. The student becomes familiar with the laws, calibration, application equipment, soil science, pH, and fertilization. In addition, this course helps prepare the student for the EPA Restricted Use Pesticide Certification Examination under the categories of Ornamentals and Turf, Aquatics, Right of Way and Interiors. It is also good preparation for state licensing. Prerequisite: HORT 1000 or advisor approval

HORT 1250 Herbaceous Plants

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a continuation of Plant Identification II. The course covers the identification, botanical names, cultural requirements and landscape/garden site uses of approximately 120 herbaceous plants. Plants are taught from slides, textbooks, line drawings, and fresh cut specimens when available. Some local field trips may be required. Prerequisite: HORT 2320 or advisor approval

HORT 1275 Woody Ornamentals

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a continuation of Plant Identification I. This course covers the identification, botanical names, cultural requirements and landscape/garden site uses of approximately 120 woody ornamentals. Plants are taught from slides, textbooks, line drawings, and fresh cut specimens when available. Some local field trips may be required. Prerequisite: HORT 1310 or advisor approval

HORT 1310 Plant Identity I and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course covers the identification, botanical names, cultural requirements and landscape/garden site uses of approximately 80 woody ornamental plants. The course covers basic plant morphology as it relates to woody ornamentals. Plants are taught from slides, textbook, line drawings, and fresh cut specimens when available. Some local field trips may be required.

HORT 1400 Landscape Maintenance

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course covers the information necessary for the person involved with landscape maintenance. The course includes landscape maintenance techniques, seasonal scheduling, materials, equipment and labor estimation and budgeting. The course will review some basic plant nutrition and soil science (i.e., pH, soil types, water, soil tests). Students will learn how to calculate landscape square footages, and hard-good coverage requirements such as mulch, lime, weeding, mowing, edging, pruning, line trim, leaf removal, spade edging, seasonal color change, chemical applications, fertilization, irrigation, aeration, ice and snow removal, interiors, and scheduling and estimating these services. This course will also cover small engine and equipment maintenance and proper equipment selection.

HORT 1450 Arboriculture

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is for students who wish to enhance their knowledge of tree identification, function, evaluation and maintenance. The course also provides preparatory information and/or review for students

interested in gaining the Certified Arborist designation through the International Society of Arboriculture. Some topics to be covered are tree biology, soil properties, water management, nutrition and fertilization, tree selection, pruning, disease and problem diagnosis.

HORT 1510 Turfgrass Management I

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course covers turfgrass selection, identification, and establishment procedures. The course is designed for persons working in the golf course or lawn care industry as well as the do-it-yourself homeowner. Cultural practices to be discussed include basic fertilization programs, irrigation practices, mowing, thatch control, identification and control of pests (weeds, insects, and diseases), and the calibration of equipment used for seeding, fertilization and weed control.

HORT 1911 Cooperative Work Experience I

1 Credit Hour(s) 0 Lecture Hour(s) 75 Lab Hour(s)

This course is designed to prepare the student to work in the green industry by gaining experience in a supervised environment. Students will be evaluated on pre-selected criteria during consultation with advisor. Prerequisite: Completion of 75 percent of the courses in the program

HORT 1921 Cooperative Work Experience II

1 Credit Hour(s) 0 Lecture Hour(s) 75 Lab Hour(s)

This course is designed to prepare the student to work in the green industry by gaining experience in a supervised environment. Students will be evaluated on pre-selected criteria during consultation with advisor. Prerequisite: Completion of 75 percent of the courses in the program

HORT 2100 Small Engines and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course is designed to familiarize the student with the internal combustion engine and the proper operation and maintenance as it relates to landscaping equipment. Student will purchase own tools.

HORT 2210 Irrigation Techniques

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course introduces the basic elements, principles, and techniques currently used in landscape irrigation installation and service. Students will study basic hydraulics and its practical application to all types of underground sprinklers, pipes, and valves. Automatic controls, backflow protection, and system troubleshooting are also covered during lectures and field trips. The material covered in this class addresses broad technical aspects of automatic irrigation and its use in commercial and residential landscapes

HORT 2220 Irrigation Techniques II

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course is designed for students who have experience in irrigation and want to further their knowledge of the industry. Students will learn to design, build, install, maintain, trouble-shoot, and correct problems in existing irrigation systems. In addition, students will expand their knowledge of irrigation principals, design, and hydraulics of irrigation systems. Prerequisite: HORT 2210 or advisor approval

HORT 2300 Landscape Techniques/Lab

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course offers the student hands on experience and lecture on the proper landscaping techniques for the Mid-South. Topics covered in this course will be: bed preparation, planting, pruning, mowing, edging, leaf removal, mulching, hand watering, fertilizing and composting.

HORT 2320 Plant Identification II and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course covers the identification, botanical names, cultural requirements and landscape/garden site uses of approximately 80 herbaceous ornamental plants. The course covers basic plant morphology as it relates to herbaceous plants. Plants are taught from slides, textbook, line drawings, and fresh cut specimens when available. Some local field trips may be required.

HORT 2410 Landscape Design I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers landscape design principles, steps involved in the landscape design process, the use of drafting and drawing tools to design a landscape design and a brief historical review of landscape design from different geographic regions and periods. Students will need to purchase their own portable drawing boards, drawing supplies, and any required textbook.

HORT 2420 Landscape Design II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of Landscape Design I. Emphasis is placed on the design process and multiple design problems. An introduction to grading/drainage and further work on the more technical aspects of site scale design and drawing production is included. In addition to the supplies used in Landscape Design I, students will need to purchase a few additional supplies. Prerequisite: HORT 2410 or advisor approval

HORT 2520 Turfgrass Management II and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed for the person interested in specialized turfgrass management in the south. Detailed information on physiology, growth and development and different species and varieties of turfgrass will be presented. Students will develop complete programs for fertilization, weed and disease control, cultural practices, and establishment and renovation of all types of turfgrass areas including golf courses, athletic fields, lawns, and other recreational turfgrass areas. Prerequisite: HORT 1510 or advisor approval

HORT 2600 Landscape Business Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course deals with the specific management concerns for the landscape business. Areas include accounting, records management, budgeting, estimating, job tracking, marketing, employment practices, business practices and applicable regulations.

HORT 2700 Chemical Applications/Lab**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to prepare the student for selecting the proper pesticide and using it correctly in turf and various horticultural settings. Proper calibration and operation of equipment and safety procedures for handling, storing, using, and disposing of hazardous chemicals will be covered. Prerequisite: HORT 1200 or advisor approval

HORT 2800 Golf Course Operation and Maintenance/Lab**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to present the management of golf and sports turf maintenance operations as it relates to the superintendent's duties. Students will learn to groom turf, schedule work, manage equipment, keep records and budgets, manage irrigation systems, and practice proper cultural practices. Prerequisite: HORT 1510 or advisor approval

HORT 2850 Landscape Construction and Building Design**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course will cover landscape construction and installation, grading, bed preparation, tie walls, planting around decks, fences and stone work for residential and commercial projects. In addition, site problems caused by construction debris will be addressed.

HORT 2950 Landscape and Turfgrass Management Internship I**3 Credit Hour(s) 0 Lecture Hour(s) 255 Lab Hour(s)**

This course must be taken during the student's last year. The student will work for 225 hours in a supervised horticulture industry environment such as a park, landscape firm, golf course, or garden. The student will be evaluated on pre-selected criteria during consultation with advisor. Internship cannot be taken concurrently.

HORT 2955 Landscape and Turfgrass Management Internship II**3 Credit Hour(s) Lecture Hour(s) 225 Lab Hour(s)**

This course must be taken during the student's last year. The student will work for 225 hours in a supervised horticulture industry

environment such as a park, landscape firm, golf course, or garden. The student will be evaluated on pre-selected criteria during consultation with advisor. Internship can not be taken concurrently.

HEALTH AND FITNESS**HPER 1530 Concepts of Fitness and Wellness****T****2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course promotes individual responsibility for optimal well being, encompassing local and national health concerns, personal health risk factors, life-style behaviors, and preventive health measures.

HPER 1570 Wellness Perspectives: Concepts and Applications**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course promotes individual responsibility for optimal well being, encompassing local and national health concerns, personal health risk factors, life-style behaviors and preventive health measures.

HPER 2480 Fundamentals and Techniques of Baseball and Softball**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course explores the complexities of baseball. Emphasis is on discussions of fundamentals, teaching situations, history, and styles of plays

HUMAN SERVICES**HSER 1300 Life-style Management****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of factors affecting individual life-styles. Students will examine proven management techniques designed to help them improve their life-styles.

HSER 1450 Orientation to Function of Substance Abuse Counselor**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to the twelve core competencies required for effective practice as a substance abuse counselor. Opportunities for practical skill development in each primary function will be emphasized.

HSER 1500 Counseling Theories**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course presents a comparative approach to counseling and psychotherapy practice orientations. Exposure to the most commonly utilized theoretical orientations will include psychodynamic, behavioral, cognitive behavioral, social learning, client centered, gestalt, transactional analysis and systems theories.

HSER 1510 Principles of Substance Abuse Education**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course addresses the social, political, physiological, and behavioral aspects of alcohol and drug abuse. Exploration of the nature of psychoactive substances and the various theories explaining abuse by different populations will be emphasized. Theories and methods of prevention techniques for substance abuse will be presented.

HSER 1520 Methods of Substance Abuse Treatment**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course emphasizes real-world applications in approaches to therapy as described in the counseling theories course. Routine activities that take place in typical substance treatment settings are presented. Primary settings covered are inpatient, outpatient, and the modality of day treatment. Family dynamics models, including codependency and adult children of alcoholics will be covered. Prerequisite: HSER 1500 Counseling Theories

T – Denotes courses designed for transfer to four-year institutions

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HSER 1600 Special Problems in Human Services**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an in-depth study of a particular areas of interest in human services.

HSER 1700 Adult Development**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of biological, cognitive, emotional, social, and personality development in adult life (late teens to death). Major theorists such as Erickson, Neugarten, Gould, Levinson, and Lowenthal will be examined. Opportunities to apply these theories to personal life structure are included.

HSER 1810 Orientation to Human Services**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course of study is an introduction to human services in our society with emphasis on current needs, practices, and projected changes.

HSER 1820 The Skilled Helper: Techniques and Strategies**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course of study is an introduction to the various therapeutic intervention techniques, principles and procedures. Practical skill development in selected counseling and interviewing techniques is the focus of this course.

HSER 1850 Group Facilitation Skills**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to interpersonal concepts and communication problems. Attitudes, feelings and past experiences as related to student's interactions in group work are explored. Analysis of group types and development of specific group process competencies are emphasized. Prerequisite: HSER 1820

HSER 2930 Human Services Field Experience I**T****4 Credit Hour(s) 2 Lecture Hour(s) 160 Lab Hour(s)**

This course is 160 hours of supervised experience in human-services agencies that serve clients directly. Students will choose an agency from diverse human services areas such as geriatrics, substance abuse counseling, mental health, mental retardation and other prevention services. In-class activities on campus include 1.5 hrs in a weekly seminar.

HSER 2940 Human Services Field Experience II**T****4 Credit Hour(s) 1 Lecture Hour(s) 3 Lab Hour(s)**

This course is a continuation of Human Services Field Experience I. Prerequisite: HSER 2930 Human Services Field Experience I

INDUSTRIAL ENGINEERING TECHNOLOGY**INET 1612 Introduction to Utility Worker Technology****4 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)**

Course focuses on development of a wide variety of skills related to work in the field of utility construction. Students will receive classroom instruction on job related skills, tools and equipment of the trade, safety and commercial drivers license (CDL) laws. Hands-on training will be provided to develop students proficiency in areas including driving, shovel work, use of tools, equipment loading and unloading; use of air hammer's and tampers, job-site protection, knot tying and pvc pipe installation. Prerequisite: Must be 19 years of age; have a high school diploma or G.E.D.; have no relatives actively employed at MLGW and must have a valid drivers license from the state of residence. This course may be used as an INMT technical elective.

INET 1004 Technical Computer Applications and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course is a practical experience in using Windows-based personal computers for special business and industrial applications. An integrated software system (Microsoft Office) applying a word processor, a spreadsheet, and a database used separately and integrated is used. BASIC programming and Windows are also covered. Prerequisite: DSPM 0850 or approval of program coordinator

INET 1220 Measuring Techniques and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course builds upon basic metrology skills covered in MEET 1144 to present more advanced methods of measurement and data collection for industry. These methods include computer-based laser, optical, digital and automation. Equipment covered includes Coordinate Measuring Machines (CMM), Configurable Vision Inspection Modules (CVIM), optical comparators, robots and sensors. The hands-on use of high-tech equipment and Geometric Dimensioning and Tolerancing (GDT) is emphasized as well as the statistical use of data. The student is introduced to quality assurance and inspection documentation. Prerequisites: MEET 1144, ENTC 1124 or approval of program coordinator

INET 1901-1908 Technical Scholarship Program I - VIII**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

Students work part-time at their sponsoring companies training in areas related to their majors. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair; may take as many as eight courses.

INET 1931-1933 Co-operative Education Work Experience I-III**3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, and the impact it has on today's society.

INET 1941-1943 Cooperative Education Work Experience IA - IIIA**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

INET 2003 Production and Operations Management and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course covers the following areas: forecasting, production planning, financial analysis, inventory control, resource management, CPM and PERT scheduling, Materials Resource Planning (MRP), and Just-In-Time (JIT) manufacturing. Computer programs are demonstrated. Prerequisite: MATH 1740 or approval of program coordinator

INET 2014 CNC and Robotics and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course addresses the requirement that the mechanical and industrial engineering technology technicians be skilled in the principles of computer-integrated manufacturing. Emphasis is placed on Computer Numerical Control (CNC) machines and their programming. Industrial robots and computer-controlled systems are discussed highlighting their applications. Prerequisites: INET 1004, MEET 1144, or approval of program coordinator

INET 2023 Motion/Time Analysis and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course presents the principles and techniques used in work measurement and operation analysis. Topics involved are operator and machine process charts, product flow charts, operation routing charts, motion economy laws, standard time study methods, and synthetic time study methods. Videotape analysis and applicable computer programs are demonstrated. Technical report writing is emphasized and the student is required to write formal reports on laboratory projects. Prerequisites: ENGL 1010, INET 1004, INET 2003 or approval of program coordinator

**INET 2034 Plant Layout and Materials Handling and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course is a practical study of facilities planning with emphasis on the most efficient arrangement of work areas to achieve the lowest production costs. Topics covered are equipment location, material handling, automatic storage and retrieval, bar coding, capital requirements, personnel organization, and safety. Computer-aided design problems are performed and utilization of advanced CAD techniques are emphasized. Prerequisite: MEET 1220, INET 1004 or approval of program coordinator

**INET 2043 Statistical Quality Control and Lab
3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course covers the statistical concepts of frequency distributions, Xbar-R charts, attribute charts, lot-by-lot acceptance sampling plans, and the normal curve. Other topics include product reliability, process capability, preventive maintenance, and quality assurance. Computer applications and spreadsheets are used. Prerequisites: INET 1004 or approval of program coordinator

**INET 2054 Computer-Integrated Manufacturing and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to provide an overview of automation and computer-integrated manufacturing methods in modern production plants. Emphasis is placed on economics as well as technical issues related to automation. The course topics include flow-line production, numerical control, industrial robots, machine communications, computer-integrated manufacturing, process monitoring and control, and group technology. Prerequisite: INET 1004 or approval of program coordinator

INDUSTRIAL MAINTENANCE TECHNOLOGY

**INMT 1110 Air Conditioning Principles I
4 Credit Hour(s) 3 Lecture Hour(s) 1 Lab Hour(s)**

Through lecture and hands-on lab activities the student will be introduced to the physics and principles of sealed refrigeration and air conditioning systems. Emphasis will be placed on cooling systems. Some basic electricity as it relates to HVAC will be introduced.

**INMT 1114 Blueprint Reading and Drafting and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course covers terminology and the basic techniques and fundamentals of drafting to prepare the student to read blueprints and for more advanced classes in engineering drawing. Lettering techniques, use of drawing instruments and scales, applied geometric construction, orthographic projection, isometric drawing, and drawing layout procedures are covered. Also included is an introduction to computer-aided drafting.

**INMT 1120 Air Conditioning Principles II
4 Credit Hour(s) 3 Lecture Hour(s) 1 Lab Hour(s)**

This course is a continuation of Air Conditioning Principles I. It will cover a brief review of the physics of heat, pressure, and the refrigeration cycle. Through lecture and hands-on lab activities the course will concentrate on commercial refrigeration and basic principles of heating. The course will include psychrometric charts and heat load calculations. Prerequisites: INMT 1110, or advisor approval

**INMT 1124 Welding Processes and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to enhance one's interest and knowledge in the art and science of welding. Emphasis is placed on shielded metallic arc welding (S.M.A.W.), oxygen-acetylene welding (O.A.W.), plasma arc cutting, gas tungsten arc welding (G.T.A.W.), gas metal arc welding (G.M.A.W.), and other industrially important welding processes. The topics of destructive testing, nondestructive testing, properties, identification, and heat treatment of metals are presented.

**INMT 1214 Pipefitting and Plumbing Practices and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course covers the various plumbing and pipefitting connections and types of pipe normally used in industry. The practical applications of materials, tools, and calculations necessary for the layout of

plumbing, pipefitting, and gas systems are emphasized. Laboratory work includes layout, cutting, bending, fabrication, installation, and maintenance of a typical process, utility and waste piping system. Labs also include the valves and fittings peculiar to each system. Safety instructions are stressed continually throughout the course.

**INMT 1611 Control Systems Technician Fundamentals and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course combines basic industrial instrumentation and controls theory with hands-on training in the laboratory. Course topics include level, pressure, temperature, and flow measurement and basic control strategies. Laboratory exercises will cover measurement exercises, instrument calibration, thermocouples, resistance thermo detectors (RTD's), wiring, tube bending, and troubleshooting. Safety will be emphasized throughout the course. This course is designed to provide experienced electricians with a basic knowledge of industrial instrumentation and controls. A sound working knowledge of DC and AC electricity is needed to be successful in this course. This course may be used as an INMT technical elective.

**INMT 1612 Control Systems Technician Certification Preparation and Lab
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course is a continuation of the Control Systems Technician Fundamentals course, INMT1611. The course will cover the basics of control loop tuning, the calibration of "smart" instruments, the evaluation of process signals and the integration of a process control system. Advanced level, pressure, temperature and flow measurement exercises will be conducted using a live process trainer. This course is designed for journeyman electricians with previous industrial instrumentation experience and/or training. The course prepares students for the International Society for Measurement and Controls "Certified Control Systems Technician Level I" examination. Prerequisite: INMT 1611 or departmental approval. This course may be used as an INMT technical elective.

**INMT 1613 HVAC Controls
3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course familiarizes students with electrical, pneumatic and electronic controls utilized in heating, cooling and ventilating systems. It covers terminology, functions, application and servicing of the control system therewith. This course also prepares the student for more advanced training in the HVAC field. Prerequisite: INMT 2124 or equivalent experience. This course may be used as an INMT technical elective.

**INMT 1618 Troubleshooting Electrical and Electronic Systems
4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course introduces the student to a wide range of techniques and procedures for troubleshooting modern day electrical and electronic equipment. Topics covered include basic electrical theory, symbols and circuits, meters/special meters, symbols and terminology, basic circuit measurements and troubleshooting relays and motor starters, motor electrical/mechanical problems, DC/AC motors, motor control circuits, lighting circuits, mechanical and solid state switches. The testing of diodes/transistors/thyristors and programmable controllers is also covered. Topics will be supported with practical lab experiments and demonstrations to ensure proper understanding of the material. Although theory will be discussed; understanding circuits and their applications will be stressed. Emphasis is placed upon the use of test equipment and technical manuals. This course may be used as an INMT technical elective.

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INMT 1622 Advanced Fundamentals of Air Conditioning and Refrigeration

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course is designed to teach students with some HVAC experience the principals and techniques of troubleshooting central heating and air conditioning systems. Strong emphasis is placed on repairing electrical problems. The course covers the theory, function and application of This course is designed to teach students with some HVAC experience the principals and techniques of troubleshooting central heating and air conditioning systems. Strong emphasis is placed on repairing electrical problems. The course covers the theory, function and application of electrical and electronic controllers and control devices used in HVAC systems. The components of central heating and cooling systems, water coolers, ice machines, air handlers, walk-in and reach-in coolers and freezers, and domestic refrigeration units are taught in detail using diagrams and schematics. The course is taught in accordance with Shelby County code requirements. Prerequisite: INMT 2124 or equivalent experience. This course may be used as an INMT technical elective.

INMT 1625 Centrifugal Chillers and Industrial Refrigeration

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course is designed to provide an introduction to industrial refrigeration and the major types of centrifugal chillers used in cooling large buildings and other industrial applications. Topics include a discussion of the various types of plants and their underlying theory of operation, components, systems operation, and maintenance methods This course may be used as an INMT technical elective.

INMT 1641 Blueprint Reading

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

In this course the student will be introduced to the basic techniques and fundamentals of drafting and blueprint reading of the machine trades. Alphabet of lines, auxiliary views, details and assembly drawings, engineering scales, applied geometric constructions, orthographic projection, drawing layout procedures, freehand technical sketching, thread representation and specification, specifications and callouts for machine processes, sheet metal drawings, and welding drawings will be covered. This course may be used as an INMT technical elective.

INMT 1655 Fundamentals of Gas for Utility Workers

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course provides an introduction to the natural gas industry from production to transmission to distribution. The course gives the student an opportunity to examine the properties and physical laws of natural gas including basic gas measurements and pressure regulation. Department of Transportation (D.O.T.) regulations, leak maintenance, gas regulators and meters are covered. Students will perform skill-based performance activities that cover the inspection, operation and maintenance of gas-fired appliances. The process of gas combustion is also covered in-depth. This course may be used as an INMT technical elective.

INMT 1662 ASME Welding Certification

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course is designed to further the knowledge and understanding of the student in the increasingly technical field of welding. The student will be instructed through text material and handouts from Section IX, Qualification Standard for Welding, American Society of Mechanical Engineers, ANSI, AMSE, BPV-IX. The students will be acquainted with the following: Oxyacetylene Welding, SMAW, GTAW, GMAW and other types of special welding processes in relationship to welding certification, ASME Section IX, API 1104 Standard for Welding Pipelines and Related Facilities and DOT Code of Federal Regulations Part 192 and 195. Student will also be acquainted with applications of testing Non-Destructive and Destructive. Prerequisite: Minimum of 3 years welding experience and minimum of 1 semester of vocational training in the welding field. This course may be used as an INMT technical elective.

INMT 1901-1908 Technical Scholarship Program I - VIII

4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

Students work part-time at their sponsoring companies training in areas related to their majors. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the Dean and Department Chair; may take as many as eight courses.

INMT 1931-1933 Co-operative Education Work Experience I - III

3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

INMT 1941-1943 Co-op Education IA - IIIA

4 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

INMT 2104 Electrical Circuit Fundamentals and Lab

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course is designed to acquaint the student with the fundamental concepts of DC and AC electrical circuits. The theory of electron flow, magnetism, production of electricity, series circuits, circuits containing resistance, inductive reactance, and capacitive reactance are discussed. The proper use of measuring equipment and personal safety is stressed throughout the course. Prerequisite: MATH 1740 or approval of program coordinator

INMT 2110 Fluid Power I and Lab

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course presents the basic principles of hydraulics and pneumatics and its practical applications. Emphasis is placed on a fundamental understanding of the physical principles of fluid power and the principles of applications of different types of pumps and compressors and the role each plays in a total fluid power system. The design, application, and maintenance of system components are reinforced in the laboratory where work is accomplished on actual equipment and systems. Prerequisite: MATH 1740 or approval of program coordinator

INMT 2120 Fluid Power II and Lab

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course is a continuation of Fluid Power I and covers design of basic hydraulic and pneumatic circuits and safety circuits. Emphasis is placed on operation, application and installation of pressure intensifiers, torque devices, pumps, motors, fundamentals of reservoirs and plumbing, as well as accumulators, packings, and seals. Proper maintenance and troubleshooting are stressed in this course. Prerequisite: INMT 2110

INMT 2124 Air Condition Principles and Lab

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers the basic principles of air conditioning and refrigeration, including, but not limited to, theory, refrigerants, systems evacuation, system charging, controls, metering devices, evaporators, condensers, compressors, heat pumps, and troubleshooting. The proper use of tools and equipment as well as personal safety is stressed throughout. This course requires the preparation of formal reports.

INMT 2133 Motion and Power and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)

This course examines the use of basic machines in industrial settings. Power transmission methods are stressed. Laboratory exercises cover the mechanical drive devices, gears, pulleys and belts, roller chain assemblies, timing belts, clutches, conveyor belts and shaft connections and alignment. Safety practices are emphasized along with the industrial applications. Prerequisite: MATH 1740 or approval of program coordinator

INMT 2204 Motors and Controls and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course covers the physical and electrical characteristics of alternators, generating sets, squirrel cage motors, wound-rotor motors, synchronous motors, AC series motors, control devices and applications, including the expanding use of solid-state control devices and applications. At the same time, this course covers the basic concepts of motor controls to enable the student to build technical competence upon a firm understanding of principles. It is assumed that the student has a basic understanding of electrical theory. The proper use of tools and equipment as well as personal safety is stressed throughout. Prerequisite: INMT 2104

INMT 2213 Occupational Safety and Health**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

In this course, the students receive instruction in environmental and industrial safety practices. Also covered are the essential procedures used to assure an effective safety program in the workplace. Particular emphasis is placed on fire prevention and protection, material data sheets, governmental and safety standards, and accident prevention.

INMT 2224 Boiler and Heat Operations and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This is an introductory course covering the principles of operation, maintenance, construction, and regulation of steam boilers and gas heating systems. The basic principles of metallurgy, materials selection and utilization combined with the operational concepts of fire tube, water tube, and hot water heating boilers are discussed. Emphasis is placed on details of construction, a knowledge of fuels, AGA specifications, firing controls and programmers, operational problems, and repair and maintenance of steam boilers and heating systems. Safety is an integral part of the course.

INMT 2254 Advanced CNC and Robotics**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to be a continuation of IE 2014, CNC and Robotics. Primary emphasis is placed on the logical analysis and problem-solving techniques associated with the operation and maintenance of CNC machining centers and industrial robots. Advanced programming features such as mirror imaging, polar rotation, datum shifts, turning, and threading are presented. Off-line computers used in CAD/CAM/CIM systems are covered along with robotic applications. Hands-on labs are featured. Prerequisite: INET 2014

INMT 2264 Automated Industrial Systems**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed as a hands-on approach to the automated industrial systems in a modern manufacturing or service organization. CNC machining centers, robotics, automated conveyors, automatic storage and retrieval systems, vision inspection and identification systems are examined. A systematic approach to troubleshooting coupled with logical preventive maintenance program is an integral part of the course. Prerequisite: INET 2014

INFORMATION SYSTEMS AND DECISION SCIENCES**ISDS 2000 Business Statistics I****T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Introduction to basic statistical procedures for analysis and interpretation of business data; collection and presentation of data, probability theory, measures of central tendency and variability, sampling distributions, estimation of parameters, and principles of hypothesis testing. Corequisite: MATH 1710, College Algebra

ISDS 2600 Using The Internet For Business**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course explores how the Internet is being utilized by today's organizations, both private and public, in the performance of business activities. Students cover basic Internet terminology and concepts, and then, through directed activities and independent projects, learn valuable skills to make business decisions. Topics covered include Intranets, 'Net and e-Commerce. Prerequisites: DSPM 0850 or equivalent, DSPW 0800 or equivalent, MGMT 1000

ISDS 2605 e-Commerce**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The objective of this course is to provide students with an understanding of the growing use of electronic methods for conducting business. Topics covered include both technical and business issues for implementation and strategies of electronic marketing, sales, promotion, purchasing, logistics, and support activities. Legal and ethical issues are also discussed. Case studies and individual projects will be used to provide business examples from conceptual models and real-world events. Prerequisites: DSPR 0800 or equivalent, DSPW 0800 or equivalent, MGMT 1000, and ISDS 2600 Internet for Business, or permission of an advisor. Corequisite: ENGL 1010 English Composition

ISDS 2606 Electronic Business Security, Risk Management, and Control**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a comprehensive survey of strategies for the management of network and Internet applications and standards. The course provides information on various threats to security, guidelines for developing a security policy, planning security strategies, and the methods of securing E-mail and network resources. This course also teaches students how to perform different phases of a security audit, including discovery and penetration, as well as plans for deterring hackers from bypassing security measures on company networks. Students will also learn how to generate effective audit reports that can help organizations improve their security and become current with industry standards. Prerequisites: ENGL 1010, ISDS 2605, ITEC 1001, or permission of an advisor

ISDS 2749 Business Microcomputer Applications**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to the use of microcomputers for the purpose of performing business activities. The course is in a lab environment with direct instruction concerning the use of current software and electronic communication. Out of class assignments require the use of a computer and applicable software. Students are also required to PASS the "Core", Microsoft Excel, "MOS" certification exam to complete this course. Prerequisites: Completion of all developmental courses

ISDS 2755 Introduction to Management Information Systems**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to teach students how MIS concepts are applied in a business environment. An introductory framework that stresses the most current and common business applications of technology is developed through case studies and projects. Topics covered include hardware and software, business data communications, strategic uses of information systems, and how information systems can solve day-to-day business problems. Prerequisites: DSPR 0800 or equivalent, DSPW 0800 or equivalent, ISDS 2749, and MGMT 1000

ISDS 2800 Production and Operations Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Interdependence and the importance of operations in strategy decisions, in both manufacturing and service industries, are considered. Also addressed is the integration of various techniques of problem solving for operations planning and control. Discussion questions, cases, and problems are used. Prerequisite: ISDS 2000 or approval of advisor

T – Denotes courses designed for transfer to four-year institutions

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ISDS 2806 Supply Change Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The objective for this course is for each student to know the elements of Supply Chain Management, including, but not limited to the following areas: supply chain management and logistics strategy, supply chain management and logistics in a competitive context, customer service, functional excellence, supply chain techniques to achieve excellence, and future supply chain trends and issues.

ISDS 2807 Statistical Quality Improvement**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course emphasizes the theory and practical techniques needed to statistically measure and control a process, whether in manufacturing or in service organizations. This course covers various types of control charts, acceptance sampling procedures and concepts relating to normal distributions, measures of central tendency, and dispersion. Prerequisite: MGMT 1200

ISDS 2840 Quality Information Systems**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers recording data, forms, data communication, storage and retrieval of data, and system design, as related to total quality improvement. Students use personal computers and software systems to develop information systems and data analysis. Prerequisites: MGMT 1200, ISDS 2830, ITEC 1001

INFORMATION TECHNOLOGY**ITEC 1000 Introduction to Careers in IT****2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces students to aspects of the different career opportunities in the Information Technology field. Career preparations, and traditional and Internet research skills are included in this course.

ITEC 1001 Introduction to Microcomputers**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to provide entering students with a background in computer terminology and concepts. Topics include operating systems and basic use of the Internet. Hands-on instruction utilizes popular microcomputer software packages, including a word processor, an electronic spreadsheet, and a database. One computer per student is assigned for the course. Prerequisite: keyboarding skills and completed all developmental courses

ITEC 1002 Logic and Problem Solving for Programmers**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course covers computer concepts and problem-solving techniques as they are applied to programming. Topics include structured programming techniques, design of printer spacing charts, and programming subject matter such as control and iteration. Students write and run programs in order to apply these concepts. One computer per student is assigned for the course. Prerequisite: Completed all developmental courses

ITEC 1004 Microcomputer Operating Systems**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

The student receives a thorough introduction to the microcomputer operating system and how it provides an environment for information decision making. General concepts, commands, terminologies, and techniques of the microcomputer operating system are also introduced to the student. Skills are developed by using a microcomputer operating system. One computer per student is assigned for the course. Prerequisite: Completed all developmental courses

ITEC 1006 Utilities/Hard Disk Management**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course includes utility programs that aid in the operation of microcomputer software and hardware. Advanced operating systems procedures and techniques are covered. Procedures and techniques for using a hard disk are presented. Writing across the curricula is stressed in this course, with technical writing skills and documentation techniques emphasized. One computer per student is assigned for the course. Prerequisites: ITEC1004 Microprocessor Operating System, ETEC 2814 Servicing and Maintenance of Microcomputer Systems

ITEC 1101C/C++ PROGRAMMING**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces the student to the C/C++ programming language. In this course, students write programs which emphasize the concepts of structured programming, top-down design, and user interaction utilizing C and C++. Topics include functions, control statements, such as loops and decisions input/output, pointers, arrays, and strings. One computer per student is assigned for the course. Prerequisite: ITEC 1002

ITEC 1105 Win/Web VB .NET I.**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

In this introduction to Windows/Web programming, emphasis is placed on Windows/Web user interface and programming conventions using Microsoft Visual Basic .NET. Topics include Overview of .NET Framework, Visual Studio .NET/Visual Basic .NET IDE (Integrated Development Environment), Constant/Variable Declaration, Logical Structures, Procedures/Functions, Event-Driven Programming, File Access, and Output using PrintDocument Control/Print Method. One computer per student is assigned for the course. Prerequisite: ITEC 1002 and ITEC 1001

ITEC 1141 COBOL Programming**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

COBOL permits a programmer to instruct computers in an English-type language. The programmer writes in English-like statements and paragraphs, following the conventions of a standard reference format, to describe the data to be processed and to specify the required procedures. The rules and language are taught using the structured approach, and various business problems are solved on the computer during laboratory hours. One computer per student is assigned for the course. Prerequisite: ITEC 1002

ITEC 1151 RPG/400 Programming**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

RPG (Report Program Generator) is a high level, problem solving language. It is used almost exclusively on the IBM AS/400. This course is designed to give the student a sound understanding of how to write and run programs that range from simple to complex in nature. It prepares the student to enter the information systems field with a good basic knowledge of how to use RPG. One workstation per student is assigned for the course. Prerequisite: ITEC 1002

ITEC 1325 IT Essentials I**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. The students, through hands-on activities and labs, learn to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, this course includes an introduction to networking. This course helps students prepare for the CompTIA A+ certification. One computer per student is assigned for the course.

ITEC 1330 Networking I**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

Introduces the basic concepts of computer networks. Covers basic topologies, protocols, performance issues, and software for LANS/WANS. Assumes student has basic computer knowledge. Writing across the curricula is stressed in this course with technical writing skills and documentation techniques emphasized. One computer per student is assigned for the course. Prerequisites: ITEC 1002 or both ITEC 1004 and ETEC 2814.

ITEC 1340 Server and Network Concepts**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course provides students with a hands-on introduction to many of the important technologies involved in web programming, web site design, and web server maintenance. Topics covered include best practices administration of a web server, and network considerations specific to the World Wide Web. Gives an introduction to the basics of the job role, covers server installation and moves on to configuration and administration of Web servers. Prerequisite: ITEC 1002.

ITEC 1500 CIW Foundations**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

CIW Foundations teaches basic hands-on skills and knowledge which internet professionals are expected to understand. The course is divided into three parts: Internet Fundamentals, Web Page Authoring Fundamentals, and Networking Fundamentals. This course is designed to help the student prepare for the CIW Foundations Certification Exam.

ITEC 1671 Introduction to Oracle**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

In this course, students will learn relational and object-relational database fundamentals, and how to create objects within the database. Students will also learn to retrieve and manipulate data through SQL Plus, and how to create application code through PL/SQL. The student will be required to complete computer lab exercise and assignment. Prerequisite: ITEC 1002 or equivalent experience. This course may be used as an ITEC elective.

ITEC 1901-1908 Technical Scholarship Program I - VIII**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

Students work part-time training in areas related to their majors at their sponsoring companies. Supervisors at the companies plan the work schedules to coincide with class schedules when possible.

ITEC 1931-1933 Co-operative Education Work Experience I - III**3 Credit Hour(s) 0 Lecture Hour(s) 255 Lab Hour(s)**

The student spends one semester in employment in the IT industry. Work duties are in the area of the student's declared concentration within the IT program. This course may not be substituted for a required concentration course (including IT electives) without approval (in writing) of the Department Chair prior to beginning the co-op experience.

ITEC 1941-1943 Cooperative Education Work Experience IA - IIIA**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

The student spends one semester in employment in the IT industry. Work duties are in the area of the student's declared concentration within the IT program. This course may not be substituted for a required concentration course (including IT electives) without approval (in writing) of the Department Chair prior to beginning the co-op experience.

ITEC 2010 Web Page Development**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

The focus of this course is on the design and creation of a Web site with the pages written in Extensible Hypertext Markup Language (XHTML) using a text-only editor. Topics include XHTML structural tags, tables, forms, image mapping, formatting with Cascading Style Sheets, and basic Web page design principles. All Web pages will validate to XHTML Strict standards. Each student will publish and maintain a Web site on a college-managed Web server. One computer per student is assigned for the course. Prerequisite: ITEC 1001

ITEC 2020 Client-Side Scripting: Dynamic xHTML**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of the study of Web page development using Hypertext Markup Language (HTML) and Dynamic xHTML. Topics include Cascading Style Sheets, Client-Side JavaScript, form validation, and Dynamic xHTML. The coding and scripting for this course is done using a text-only editor. Students will manage their individual Web sites on a remote server illustrating advanced mastery of the topics presented. One computer per student is assigned for the course. Prerequisite ITEC 1002 and ITEC 2010

ITEC 2045 FrontPage**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This is a hands-on course is designed to assist students in the learning of the most important topics of FrontPage 2002. Topics include how to create Web pages in a WYSIWYG environment using FrontPage 2002 as the object oriented development tool. Students will use

FrontPage to: design, develop, and maintain Webs; design and develop commercial Webs in small groups and make formal classroom presentations of their Web. One computer per student is assigned for the course. Prerequisite: ITEC 1001

ITEC 2101 Advanced C/C++ Programming**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course continues the study of the C/C++ programming language. Topics introduced in C/C++ Programming such as pointers, arrays and strings are studied in greater detail. Topics such as data structures, file input/output, libraries, and programming techniques and algorithms are included. One computer per student is assigned for the course. Prerequisite: ITEC 1101.

ITEC 2111 Object-oriented C++ Programming**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course covers the syntax and features of the C++ programming language which deal with object-oriented programming. Emphasis is placed on proper design and techniques using object-oriented concepts. Topics include classes, objects, overloading, encapsulation, polymorphism, inheritance, input/output and exception handling. One computer per student is assigned for the course. Prerequisite: ITEC 1101

ITEC 2115 Windows/Web Visual Basic.NET II**4 Credit Hour(s) 4 Lecture Hour(s) Lab Hour(s)**

This course is intended for students with a basic working knowledge of programming with Microsoft Visual Basic.NET and experience developing Windows/Web-based applications. Topics include Overview of Database Management including Database Design and SQL, Overview of ADO.NET, Error Handling, MDI, Reusable Components with Classes, Brief Overview of ASP.NET, Crystal Reports, and Deployment of a VB.NET Application. One computer per student is assigned for the course. Prerequisite: ITEC 1105

ITEC 2121 Advanced C++ For Windows**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This class is a continuation of the study of object-oriented programming using C++. This includes using object oriented analysis and design to develop Windows applications using Microsoft's Visual C++. Students will further explore complex OOP topics such as inheritance, composition, and exception handling. One computer per student is assigned for the course. Prerequisite: ITEC 2111

ITEC 2124 Windows Visual Basic III**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course presents an overview of designing Visual Basic database applications for both server-based and single user databases using Visual Basic, the Professional Edition. Topics included are client/server elements, data formats (ODBC, MBD and ISAM), access objects, and various local and remote access APIs. This course is intended for students with a good foundation in Visual Basic programming and experience in developing Windows applications. One computer per student is assigned for the course. Prerequisite: ITEC 2114

ITEC 2141 COBOL Advanced**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Advanced COBOL programming techniques are taught using VSAM disk files and integrated programs. File access and organization are covered for sequential, indexed sequential and relative files. The student is introduced to advanced debugging techniques. One computer per student is assigned for the course. Prerequisite: ITEC 2111 and ITEC 1141

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

ITEC 2142 CICS**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course encompasses fundamental concepts of data communication and programming using command level CICS. It includes basic mapping support, CICS tables, and coding in COBOL to handle online processing. One computer per student is assigned for the course. Prerequisite: ITEC 1141

ITEC 2143 System Design**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

The fundamentals of business system analysis and design are introduced through lectures as well as involvement in a systems project using a CASE tool. The project provides for group as well as individual efforts in design and documentation of batch and on-line systems. A minimum of three written reports is required for this course as per the writing across the curricula program requirement. Prerequisite: ITEC 2141

ITEC 2150 Database Concepts/SQL**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to database design and processing. Emphasis is on relational databases with laboratory problems using SQL. One workstation per student is assigned for the course. Prerequisite: ITEC 1001 AND EITHER ITEC 1101, ITEC 1141, ITEC 1151 or ITEC 1104

ITEC 2151 Advanced RPG**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of ITEC 1141, RPG/400 Programming, and teaches complex file handling techniques. Interactive programming is introduced using both DDS and SDA methods for creating simple displays. The use of Data Structures is also taught. One workstation per student is assigned for the course. Prerequisite: ITEC 1151

ITEC 2152 Subfiles, Menus, Advanced RPG Concepts**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of IT 2151, and teaches more complex displays, menus and On-line Help screens. Subfile concepts are covered, and subfile programming is done. One workstation per student is assigned for the course. Prerequisite: ITEC 2151

ITEC 2153 Operating System for AS/400**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

A general overview of the components of the IBM AS/400 midrange computer is followed by emphasis on selected topics including menu system, object management, task management utilities, security, AS/400 control language, and CL programming. One computer per student is assigned for the course. Prerequisite: ITEC 1001

ITEC 2154 AS/400 Distributed Programming Techniques**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces the student to data communications concepts and terminology, concentrating heavily on the AS/400 and its interrelationship with various types of networks. Some programming background is required. One computer per student is assigned for the course. Prerequisites: ITEC 1001 and either ITEC 1101, ITEC 1141, ITEC 1154 or ITEC 1104

ITEC 2155 Application Case Study-RPG**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

In this course the student designs and programs an application that uses the concepts covered in the other courses in this track. One computer per student is assigned for the course. Prerequisites: ITEC 2151 and ITEC 2153

ITEC 2156 Client Access/400 and Visual RPG**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces the student to AS/400 Client/Server technology and development using AS/400 Client/Server tools, such as Client/Access 400. Features of Visual RPG are also covered. One computer per student is assigned for the course. Prerequisites: ITEC 2151 and ITEC 2153

ITEC 2160 Database Processing**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of the components of databases and their applications. During this course two different data modeling tools (ER and SOM) will be covered. Database design with data normalization through logical (DBMS independent) modeling techniques will be explored. Structured Query Language will be used to explore the database development of applications, stored procedures and event triggering. Multi-user databases will be explored with Oracle 9i, MySQL 2000 and MySQL. Network-based, Multi-tier architectures will be examined as they apply to share enterprise wide data over the internet. This course will conclude with an examination of object oriented-relationship database processing. One computer per student is assigned for the course. Prerequisites: ITEC1001 and either ITEC1001, ITEC1104 or ITEC1141

ITEC 2171 Introduction to Server-Side Web Programming**4 Credit Hour(s) 4 Lecture Hour(s) Lab Hour(s)**

This course continues the development of web programming skills begun in previous coursework. Students will build upon the JavaScript skills, learning more advanced client-side scripting techniques. This course includes an introduction to server-side scripting that will include Classic ASP and ASP.NET. Students will also develop programming skills that enable database connectivity using ADO, ADO.NET, and SQL. During the course students will publish a series of progressively more complex web sites, with a focus on enhancing the end user's web experience and interactivity. Topics include: Advanced client-side JavaScript, server-side scripting with Classic ASP and ASP.NET, ADO, SQL, SML, and XSLT. One computer per student is assigned for the course. Prerequisite: ITEC 2020

ITEC 2172 Advanced Server-Side Web Programming**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces students to the more advanced concepts of server-side Web programming. Topics covered include XML and XSLT, as well as advanced coverage of Classic ASP and ASP.NET. Students will learn how to create integrated, web-based, e-commerce applications that interact with databases and XML files, giving the end user the ability to dynamically access and store data. Topics include: an introduction to ASP.NET, advanced server-side scripting with Classic ASP, ASP.NET, XML, XSLT, XMLDOM, ADO, ADO.NET, ODBC, SQL and database connectivity. One computer per student is assigned for the course. Prerequisite: ITEC 2171

ITEC 2173 Special Topics in Web Programming**4 Credit Hour(s) 4 Lecture Hour(s) Lab Hour(s)**

This course introduces students to some of the more advanced concepts of server-side web programming. Topics covered include XML and XSLT, as well as Cold Fusion, PHP, and/or JSP. Students will learn how to create integrated, web-based, e-commerce applications that interact with databases and SML files, giving the end user the ability to dynamically access and store data. Topics may include, but may not be limited to: advanced server-side scripting with JSP, Cold Fusion, PHP, XML, XSLT, SMLDOM, MySQL, and database connectivity. One computer per student is assigned for the course. Prerequisite: ITEC2171; Corequisite: ITEC 2172

ITEC 2201 UNIX/LINUX Operating System**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

A thorough overview of multi-user operating system utilizes the UNIX/LINUX operating system. Emphasis is placed on the user interface, terminology and command structure within the multitask/multi-user environment. Electronic mail and communications standards are covered along with standard UNIX/LINUX utilities needed to support the automated office. One workstation per student is assigned for the course. Prerequisite: ITEC 1002 or both ITEC 1004 and ETEC 2814; Corequisite: ITEC 1330

ITEC 2202 UNIX/LINUX Software Tools**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an in-depth study of UNIX/LINUX software tools. Topics include regular expressions, examining text files, formatting and working with fields and changing characters and strings in files, and file archives and compression. The AWK language and the Korn shell-programming environment are covered along with selected software development tools downloaded from the Internet. One workstation per student is assigned for the course. Prerequisite: ITEC 2201

ITEC 2205 UNIX /LINUX System Administration**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course explores the tasks and issues that anyone responsible for a UNIX/LINUX system routinely faces. Topics include adding and removing users, managing UNIX/LINUX processes, planning file systems, performing backups, setting up a printer and spooling system, overseeing a TCP/IP network (including NFFS), adding new hardware devices, managing system security and fine tuning. Prerequisite: ITEC 2201

ITEC 2210 Advanced C with UNIX/LINUX**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an advanced understanding of C concepts on different UNIX/LINUX platforms. Topics include compiling, debugging, creating and maintaining libraries, preprocessor, source code control, advanced pointer constructs, UNIX/LINUX data structures, UNIX/LINUX utilities, and dynamic memory allocation. This class prepares the student for UNIX/LINUX systems programming in C. One workstation per student is assigned for the course. Prerequisite: ITEC 1101 and ITEC 2201

ITEC 2220 UNIX/LINUX System Programming in C**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a thorough overview of the ANSI C programming language as implemented in the UNIX/LINUX environment. Topics include data structures, arrays, pointers, system calls, and standard library functions. Emphasis is placed on UNIX/LINUX system I/O facilities, program maintenance, UNIX/LINUX process control, and kernel-intrinsics. One workstation per student is assigned for the course. Prerequisites: ITEC 2210

ITEC 2301 Local Area Networking Administration**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

In this advanced course, students receive a thorough overview of the installation, management, maintenance and utilities of local area networks (LAN). The primary topics cover Novell's NetWare LAN hardware and software selection, implementation and administration. Additional topics include Inter- and Intra-LAN communications and the technical issues of NetWare implementations. One computer per student is assigned for the course. Prerequisite: ITEC 1330

ITEC 2303 Internetworking**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of ITEC 2301, Local Area Networking Administration. Students explore the tasks and issues that anyone responsible for Local Area Network administration routinely faces. Topics include configuration management, tools and techniques in monitoring LAN performance, troubleshooting methods and tools as well as theory and troubleshooting concepts. Configuration, maintenance and problem resolution of multiple protocol LANS are covered including TCP/IP, IPX, AFP, X.25 and other services. These topics are detailed in both stand-alone and simultaneous access implementations of hardware devices, management of system security, and overall tuning of systems communications. One computer per student is assigned for this course. Prerequisite: ITEC 2301

ITEC 2305 Local Area Networking Engineering**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course presents a thorough overview, from client basics to advanced troubleshooting and optimization strategies of LAN engineering. Specific topics include design, installation, management and troubleshooting of LANs and WANs. Emphasis will be placed on either on an independent study basis or in a classroom situation. Prerequisite: ITEC 2303

ITEC 2330 Networking II**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to prepare a student to apply and understand the principles of networking hardware, routing and routing protocols, and switching. This course, in conjunction with ITEC1330, will help prepare the student for the N+ Certification Examination.

ITEC 2333 Network Engineering**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

Introduces students to Switching Basics and Intermediate Routing. The course also includes on an Introduction to Classless Routing, Single Area OSPF, EIGRP, Switches, Switching Concepts and Configuration, Spanning-Tree Protocol, Virtual LANs and VLAN Trunking Protocol. One computer per student is assigned for the course. Prerequisite: ITEC 2330

ITEC 2335 WAN Technologies**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

Introduces the student to WAN technologies and focuses on Network Address Translation (NAT) and Port Address Translation (PAT) Point-to-Point Protocol (PPP), Integrated Services Digital Network (ISDN), Dial-on-demand routing (DDR), Frame Relay, and network management. One computer per student is assigned for the course.

ITEC 2341 Introduction to Network Security**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course provides the student with comprehensive overview of network security and covers communication security, infrastructure security, cryptography, operational/organizational security, disaster recovery, business continuity, as well as computer forensics. Maps fully to COMPTIA's Security+ Exam objectives. Extensive hands-on and research projects actively place the student in the role of the security professional. Gives a comprehensive overview of network security from basic concepts to advanced topics such as cryptography and computer forensics. Prerequisite: ITEC 1330

ITEC 2351 Windows 2000 Professional**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course will introduce the student to the Windows 2000 Professional operating system and how to network computers with 2000 Professional installed. In addition, the student will use hands-on projects and project cases for reinforcement. Topics to be covered in detail; installation of the operating system; user management, print services, file system management, user permissions. Troubleshooting and network support will also be covered. This course will help prepare the student to sit for the MCSE test for Windows 2000 Professional operating system. One computer per student is assigned for the course. Prerequisite: ITEC 1330 and ITEC 2401

ITEC 2365 Network Design**3 Credit Hour(s) 3 Lecture Hour(s) Lab Hour(s)**

Provides the student with an understanding of the design of small- to medium-sized networks which meet performance, security, capacity, and scalability requirements. Topics include identifying customer needs, developing a network structure, and designing a network prototype or pilot structure. Prerequisite: ITEC 1330

ITEC 2380 Internet Case Study**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

In an interactive "real life," classroom environment, the student is expected to apply skills acquired through previous course work as well as new skills acquired in this class. The students will work in a team environment designing, installing, programming and maintaining a web server and web site on the Internet. This course will be taken in the students, last semester of school. Prerequisites: ITEC 2171 and ITEC 2411; or ITEC 2171 and ITEC 2102; or ITEC 2372 and ITEC 2374, Corequisites, ITEC 2172 and ITEC 2701; or ITEC 2172 and ITEC 2412 or ITEC 2376 and ITEC 2378

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

ITEC 2401 Windows Operating System**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a thorough overview of the Windows operating system environment. Emphasis is placed on the graphical user interface and the terminology within the Windows multi-tasking environment. Topics include usage of the Desktop, file management, settings, printing and managing hardware. The course also includes the use of DOS through the Windows environment, memory management, Network Neighborhood, troubleshooting and other tools to customize Windows. One computer per student is assigned for the course. Prerequisites: basic keyboarding skills and ITEC 1001

ITEC 2404 Windows Database Application–Access**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course explores how the key concepts, features and commands of the leading Windows-based relational database program Access, are utilized to solve almost any business problem. The goal is to become familiar with database design and implementation in a Windows environment with emphasis on data maintenance, queries, form design, reporting and macro writing. The goal is accomplished by using practical examples that are typical of those that everyday users of Access will encounter. One computer per student is assigned for the course. Prerequisite: ITEC1001; Corequisite: ITEC 2401

ITEC 2406 Database Management**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces the student to basic database systems and their design in an office environment. Emphasis is placed on the definition of the data requirements, data dictionaries usage and work flow analysis. The course utilizes the leading relational database software management system to create, manipulate, and extract reports for a database. An introduction to the industry's leading database software is also covered. One computer per student is assigned for the course. Prerequisites: ITEC 1001 and ITEC 1004

ITEC 2408 Windows Applications**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This advanced course is a continuation of the concepts learned in Introduction to Microcomputers. Advanced topics will be presented in Word Processing, Spreadsheet, and Presentation applications. Additionally, an E-Mail application will be introduced. Emphasis is placed on advanced mastery of skills, including integration of applications using object embedding/linking. Students will demonstrate a thorough knowledge of file management skills. This course is designed to prepare the student for Core-Level Microsoft Office Specialist (MOS) Certification in Word, Excel, PowerPoint, and Outlook. One computer per student is assigned for the course. Prerequisites: ITEC 1001, Co requisite: ITEC 2401

ITEC 2410 Desktop Publishing**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

A thorough overview of the state-of-the-art usage of computers in the graphic publishing environment is included in this course. An integrated approach covers topics including publishing, graphic painting, and basic publishing design software. The student combines text from word processors with graphics for an integrated publication. One computer per student is assigned for the course. Prerequisite: ITEC 2401

ITEC 2420 Advanced Desktop Publishing**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This is an advanced course in Desktop Publishing designed to enhance the DTP skills acquired in IT 2410, Desktop Publishing, fundamentals course. This course covers the concepts and practices applicable to the publishing and computer graphics marketplace. The student receives hands-on experience with Adobe PageMaker, Corel Draw, a slide presentation program, and graphics scanners. Topics include color separation, typography techniques, and the principles of document design. One computer per student is assigned for the course. Prerequisites: ITEC 2410

ITEC 2444 End User Support Skills**4 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed for the student interested in perusing employment opportunities in the Help Desk profession and/or entry

level positions in the computer support industry. The course provides the students with the knowledge, skills and abilities commonly found in user support position descriptions and on the tasks employers expect support staff to be able to perform. It will explore the different types of help desks and career paths in the help desk profession. One computer is assigned for the course. Prerequisites: ITEC 1006 and ITEC 1330

ITEC 2705 Delphi-Rapid Application Development (RAD)**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a survey course for computer programmers and systems analysts using rapid application development. Event-driven, visual, and structured programming concepts will be presented. Course emphasis will be on the total program development process through problem analysis, design, coding, testing, debugging and maintenance. Programming projects will involve common business problems that require data entry, display of calculated results, reports, query, conditional testing, arithmetic operations, control breaks, array management, data masking, lookup processing, data organizations, file I/O and Web development. Programs will be implemented using Borland's Delphi for Windows and the underlying Pascal language. One computer per student is assigned for the course. Prerequisites: ITEC 1101, ITEC 1151, ITEC 1141, ITEC 1104 or program chair approval

ITEC 2710 JAVA Application Programming**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of object-oriented programming covering the syntax and features of JAVA Programming. Topics include comparing JAVA to other programming languages, JAVA API's Web applets, stand-alone applications, input/output, multi-threading, exception handling, and network client/server applications. One computer per student is assigned for the course. Prerequisites: ITEC 1101 or department chairperson approval

ITEC 2720 Advanced Java Programming**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course continues the principles and concepts of the first Java course (ITEC 2710) and adds the subjects of Advanced GUI, Java Media Framework, Custom Layouts, Servlets, Java Server Pages, Java Beans, Bean Development Kit, Wireless Programming with Java and Java Data Base Connection with Three-tier Architecture. One computer per student is assigned for this course. Prerequisite: ITEC 2710

ITEC 2801 Special Problems I**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course allows coverage of material not contained in other courses, either on an independent study basis or in a classroom situation. Prerequisite: department chairperson approval

ITEC 2802 Special Problems II**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course allows coverage of material not contained in other courses, either on an independent study basis or in a classroom situation. Prerequisite: department chairperson approval

ITEC 2803 Special Problems III**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course allows coverage of material not contained in other courses, either on an independent study basis or in a classroom situation. Prerequisite: department chairperson approval

ITEC 2804 Special Problems IV**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course allows coverage of material not contained in other courses, procedures and techniques are covered. Procedures and techniques for using a hard disk are presented. Writing across the curricula is stressed in this course, with technical writing skills and documentation techniques emphasized. One computer per student is assigned for the course. Prerequisites: ITEC 1004, ETEC 2814

PARALEGAL STUDIES

LEGL 1010 Introduction to Legal Nurse Consulting I **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This introductory course is designed to acquaint the registered nursing professional with the history and development of the field of legal nurse consulting as well as the role of a legal nurse consultant (LNC) in the legal system. Students are introduced to the American system of law, the working structure of the government, the structure and functions of the American civil court system, procedural issues in the courts, the components of a civil trial, sources of primary law and secondary authority, basic principles of legal analysis, and the impact of legal and medical ethics on the legal nurse consultant. Prerequisites: DSPR 0800, DSPW 0800, current license as a Registered Nurse

LEGL 1020 Introduction to Legal Nurse Consulting II **3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is the second of two courses designed to introduce the registered nursing professional to the field of legal nurse consulting. The course covers specific concepts of tort law with particular emphasis on the law of medical negligence. Students prepare various documents associated with medical negligence litigation. Prerequisites: LEGL 1010, current license as a Registered Nurse

LEGL 1040 Introduction To Law

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This introductory course is required for all students in the Paralegal Studies program and is designed to provide a general overview of the legal system and various substantive areas of the law, such as contracts, criminal law, torts, and real estate. Students are introduced to the structure and functions of the court systems, the steps in legal proceedings, the various kinds of law books and the law library, and the American system of law. Special attention is given to learning legal terminology. Prerequisites: DSPR 0800, DSPW 0800 or equivalent

LEGL 1045 Legal Research

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is required for all students in the Paralegal Studies program. Students learn to perform legal research using federal and state statutes, legal encyclopedias, treatises, form books, government publications, and state and national reporters. Students also learn the proper method of citation and how to brief and analyze court cases. Prerequisite: LEGL 1040 with a "C" or better

LEGL 1050 Family Law

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is required for all students in the Paralegal Studies program. Laws, procedures, and documents involved in marriage, annulment, divorce, adoption, and child custody/child support are included. Students learn how to interview clients with family law problems and to prepare family law documents. Prerequisite: LEGL 1040 with a "C" or better

LEGL 1055 Legal Ethics and Professionalism

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is required for all students in the Paralegal Studies program. Students study the Canons of Ethics, the model Rules of Professional Responsibility, the unauthorized practice of law, and the various roles a legal assistant plays in a law office. Prerequisites: DSPR 0800, DSPW 0800 or equivalent

LEGL 1060 Real Estate Law

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course includes the study of zoning and easements, leases, and contracts and deeds. Special attention is given to the preparation of real estate contracts, closing statements, and other documents used in basic real estate transactions. Students also study title insurance and the various types of financing sources available in real estate transactions. This course is required for students in the real estate concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 1070 Torts

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course involves the study of traditional tort law and covers private or civil wrongs or injuries. Areas of study include intentional torts, negligence, appropriate standards of conduct, strict liability, and no-fault laws. Particular attention is given to the nature of personal injury litigation and its documentation and practices. This course is required for students in the litigation concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 1080 Law Office Management

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is required for all students in the Paralegal Studies program. It is designed to help the student develop skills for successful law office management. Course material includes human resource management, law office structure, basic financial management, and office communications. Prerequisite: LEGL 1040 with a "C" or better

LEGL 1100 Constitutional Law

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course covers the development of fundamental principles in constitutional law and integrates the study of United States Supreme Court decisions. Course material includes judicial review, federalism, the Bill of Rights, and the powers of the Supreme Court, Congress, and the President. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 1150 Legislative Analysis and Drafting

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course acquaints the student with legislative procedure as well as analysis and drafting of legislation. Students review the role of the three branches of government in law making, the procedural and legal requirements for drafting legislation, the methods used for analysis and construction (interpretation) of legislation, and the constitutional implications to be considered in drafting legislation. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 1200 Administrative Law

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course introduces the student to the theory and practice of administrative law through a study of the sources of administrative law, the study of administrative procedures, and the study of the relationship between judicial review and the administrative process. Course material includes the study of the Social Security Administration, Immigration and Naturalization Services, and Tennessee Workers' Compensation laws. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 1400 Juvenile Law

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course focuses on the history and development of juvenile law, the impact of the law on minors as victims as well as law-breakers, and the contemporary juvenile justice system and its three major components of law enforcement, the juvenile court system, and corrections. Prerequisite: LEGL 1040 with a "C" or better

LEGL 1450 Alternative Dispute Resolution

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course provides an overview of dispute resolution mechanisms used in the American legal system such as negotiation, mediation and arbitration. Students explore the various statutes, regulations and ethical standards applicable to alternative dispute resolution and learn the basic skills needed to work with parties in conflict. Prerequisite: LEGL 1040 with a "C" or better

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

LEGL 1931-1933 Co-operative Education**Work Experience I - III****3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

This course provides the student with supervised work experience in a legal environment. Placement is made by the Office of Cooperative Education after all requirements for employment are met. The Paralegal Studies cooperative education coordinator acts as supervisor. The student utilizes knowledge gained in any or all of the concentrations to accomplish assigned tasks in a legal office setting. Prerequisite: Completion of two semesters of technical course work or permission of the chairperson

LEGL 2010 Employment Law**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers the history of labor and employer/employee relationships, unemployment compensation, employment discrimination, arbitration, and grievance procedures. This course is an option for students in the corporate and banking concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2020 Corporate Law**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course includes the study of corporations and other forms of businesses. Students prepare documents such as a partnership agreement, corporate charter, bylaws, minutes of directors and shareholders meetings, dissolutions, and charter amendments. This course is required for students in the corporate and banking concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2025 Contract Law**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an overview of the substantive area of contract law and includes the study of the elements of a contract; the legal effect of offer, acceptance, and consideration; and the enforcement and regulation of contracts. Students are introduced to the Uniform Commercial Code, and draft and analyze different types of contracts. This course is an option for students in the real estate concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2030 Courts and Procedures I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is required for all students in the Paralegal Studies program. The jurisdiction and structure of the courts in the federal, state and local systems are explored. Students also study federal, state and local rules of procedure. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2035 Courts and Procedures II**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is required for all students in the Paralegal Studies program and builds on the rules and procedures learned in LEGL 2030. Students draft a variety of pleadings, motions and discovery documents, including interrogatories, requests for production of documents, and requests for admissions. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better, LEGL 2030, and OFAD 1510

LEGL 2040 Legal Writing**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is required for all students in the Paralegal Studies program. Emphasis on legal writing skills includes precision, clarity and accuracy, legal citation and proper format. Students draft a variety of documents including office and trial memoranda, letters, trial court briefs, contracts and operative documents. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better, OFAD 1510 and ENGL 1020

LEGL 2045 Legal Internship**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is required for all students in the Paralegal Studies program and should be taken during the student's last semester. The student works in a supervised legal environment in a law firm, agency or corporate legal department as a paralegal intern for a total of 60 hours during the semester. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better, LEGL 1055, LEGL 2030 and LEGL 2040; an average of 3.0 or better in all LEGL designated courses

LEGL 2050 Probate Law**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers the effect of various types of ownership upon passage of property at owner's death, with or without a will; basic requirements for trusts and wills; administration of a decedent's estate; and local Probate Court rules. Students prepare a variety of documents including a last will and testament, and petitions to open and close an estate. This course is an option for students in the real estate concentration Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2055 Health Care Law**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course addresses the topic of health care law with an emphasis on the corporate, regulatory, and financial structure of health care delivery as well as the emerging law of bioethics and other legal aspects of the changing medical/technological field. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2060 Evidence**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an overview of the rules of evidence. Course material includes the general rules governing admissibility of evidence, the use of documentary and opinion evidence, evidential privileges, circumstantial evidence, confessions, admissions, witnesses, and the "hearsay rule" and its exceptions. This course is an option for students in the litigation concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2065 Intellectual Property Law**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to acquaint the student with various aspects of intellectual property law. Students explore the various statutes and regulations related to traditional aspects of trademark, trade secrets, copyright, and patent law and review various documents and forms commonly used in these areas. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2070 Bankruptcy and Creditor Rights**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers the study of bankruptcy procedures and includes the initial filing, meetings of creditors, adversarial proceedings and final discharge hearings, automatic stay, adequate protection, and proceedings under Chapters 7, 11 and 13. Students also study the debtor's obligations and rights, secured and unsecured creditors' priorities, preferences and fraudulent transfers, and the bankruptcy court rules. Students identify assets and liabilities and prepare various bankruptcy forms. This course is an option for students in the corporate and banking concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2075 Environmental Law**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course addresses the topic of environmental law by focusing on an analysis of various environmental statutes as well as on the procedural issues common to the environmental field, including standing to sue and the standard of judicial review. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2080 Criminal Law and Procedure**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers the substantive aspects of criminal law and includes the general principles of criminal liability, specific analysis of particular crimes, and the substantive defenses to crimes. Constitutional safeguards and procedures from arrest through trial, sentencing, punishments, and appeals are also studied. This course is an option for students in the litigation concentration. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2085 Immigration Law**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course addresses the area of immigration law and procedure in the United States. Materials focus on statutory and regulatory aspects of the immigration process and assess the impact criminal statutes have on this process. In addition, students examine court opinions applicable to immigration law. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better

LEGL 2090 Interviewing and Investigation**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides practical exposure to the skills needed to gather information through interviews with clients, witnesses, and other persons. Students study how to take statements, search records and documents, and preserve facts and evidence gathered for trial. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better, and LEGL 1055

LEGL 2100 Computer Research and Legal Software T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is required for all students in the Paralegal Studies program. Students are exposed to computer-assisted legal research and to various types of computer software commonly used in law offices through lecture, instructional software or hands-on exercises. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better, and OFAD 1510

LEGL 2500 Advanced Computer Research
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course expands on the concepts covered in LEGL 2100 and focuses on the utilization of computerized research to perform tasks specific to the law office environment. Advanced instruction in computer-assisted legal research includes using the Internet and CD-ROM databases as well as Lexis and Westlaw to obtain information. Prerequisites: LEGL 1040 and LEGL 1045 with a "C" or better, LEGL 2100 and OFAD 1510

LEGL 2550 Internet Law
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed to acquaint the student with various legal aspects of Internet commerce, also called electronic commerce. Students explore the various statutes, regulations, constitutional and common law affecting Internet commerce, with emphasis on contractual obligations, intellectual property, privacy, and liability. Prerequisites: DSPR 0800, DSPW 0800, LEGL 1040 or FINR 2300 Business Law

LIBRARY USE/INFORMATION**LIBR 1010 Library Research Skills**
1 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)

This course is a computer-based research course designed to introduce the student to the most current Internet technology and terminology, newsgroups and e-mail. Students will utilize various search engines to navigate the World Wide Web and produce research materials for use in college courses and in life. Resources explored on the Web will include many databases, libraries, career exploration pages, other educational sites and various commercial sites. Class format includes lecture/demonstration and individualized hands-on computer lab activities. Course may be taken online.

MATH**MATH 0990 Foundations of Geometry**
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course introduces basic Euclidean geometry principles including line segments, circles, angles, plane regions, and 3-dimensional figures. Exposure to geometric proofs, logical reasoning and integration of algebra skills with geometric concepts will also be covered. Prerequisite: Math 0850 or demonstrated proficiency on the placement examination

MATH 1410 Foundations of Mathematics I T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Introduction to set theory, logic, numeration systems, algorithms, and the real number system. This course is restricted to Electuary Education and Paralegal majors. Prerequisite: DSPM 0850 or demonstrated proficiency on the placement examination or the mathematics component of the ACT

MATH 1420 Foundations of Mathematics II T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of equations, relations and functions, matrices, coordinate geometry, probability, and statistics. Prerequisite: MATH 1410

MATH 1530 Statistics T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Study of basic statistical concepts including data organization and analysis including frequency distributions, measures of central tendency and dispersion; probability theory and distributions; sampling methods; estimation; hypothesis testing; regression and correlation analysis. Prerequisite: DSPM 0850 or demonstrated proficiency on the placement examination or the mathematics component of the ACT.

MATH 1630 Finite Mathematics T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of linear functions, linear systems, matrices, probability, mathematics of finance, and linear programming. Prerequisite: DSPM0850 (Intermediate Algebra) or demonstrated proficiency on the placement examination or the mathematics component of the ACT

MATH 1710 Precalculus T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Exploration of the real number system: relations and functions, graphing techniques, linear and quadratic systems of equations and inequalities, matrices and determinants, conic sections, polynomial functions and theory of equations, exponential and logarithmic functions, natural number functions. Prerequisite: DSPM 0850 Intermediate Algebra or demonstrated proficiency on the placement examination or the mathematics component of the ACT

MATH 1720 College Trigonometry T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Study of functions and graphing technique theories; circular functions and their graphs; trigonometric functions with applications to right and general triangles; complex numbers; logarithms; inverse trig functions; identities; trigonometric equations. Prerequisite: MATH 1710 Precalculus

Note: The Math Department highly recommends a grade of at least "C" in the prerequisite course before attempting this course.

MATH 1740 Algebra and Trigonometry I T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Study of algebra encompassing linear equations, quadratic equations, functions, graphs of functions, and systems of equations; study of the trigonometry of the right triangle, radian measure, trigonometric functions of any angle, vectors, trigonometry of oblique triangles, the Law of Sines, the Law of Cosines, and graphs of trigonometric functions. Prerequisite: DSPM 0850 Intermediate Algebra or demonstrated proficiency on the placement examination or the mathematics component of the ACT

MATH 1750 Algebra and Trigonometry II T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Continuation of Algebra and Trigonometry I encompassing the trigonometric form of complex numbers, powers and roots of complex numbers, trig identities, trig equations, inverse trig functions, polar coordinates; also, conic sections, exponential and logarithmic functions, inequalities, variations, sequences and series. Prerequisite: MATH 1740 Algebra and Trigonometry I

Note: The Math Department highly recommends a grade of at least "C" in the prerequisite course before attempting this course.

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

MATH 1830 Elementary Calculus T**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Introduction to concepts and methods of elementary calculus of one real variable as related to rational, exponential and logarithmic functions; nature of derivatives; differentiation; applications of derivatives; nature of integration; definite integral; applications of the definite integral. Prerequisite: MATH 1710 Precalculus or permission of department chair

Note: Only one of MATH 1830 Elementary Calculus or MATH 1910 Calculus and Analytic Geometry I may be used to satisfy degree requirements. The Math Department highly recommends a grade of at least "C" in the prerequisite course before attempting this course.

MATH 1910 Calculus and Analytic Geometry I T**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Study of tangents, limits and continuity, differentiations and its applications, anti-differentiations and the definite integral. Prerequisite: MATH 1750 Algebra and Trigonometry II, or MATH 1710 Precalculus and MATH 1720 College Trigonometry

Note: Only one of MATH 1830 Elementary Calculus or MATH 1910 Calculus and Analytic Geometry I may be used to satisfy degree requirements. The Math Department highly recommends a grade of at least "C" in the prerequisite course before attempting this course.

MATH 1920 Calculus and Analytic Geometry II T**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Study of the definite integral and its applications, exponential and logarithmic functions, transcendental functions, techniques of integration, and infinite series. Prerequisite: MATH 1910 Calculus and Analytic Geometry I

Note: The Math Department highly recommends a grade of at least "C" in the prerequisite course before attempting this course.

MATH 2110 Calculus & Analytic Geometry III T**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Study of Taylor and Maclaurin series, conic sections, vectors in two and three dimensions, partial differentiations, multiple integration, and selected topic in vector calculus. Prerequisite: MATH 1920 Calculus and Analytic Geometry II

Note: The Math Department highly recommends a grade of at least "C" in the prerequisite course before attempting this course.

MATH 2120 Differential Equations T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Study of ordinary differential equations, including first order equations, second order linear equations, higher order linear equations, models and applications, series solutions, Laplace transforms. Prerequisite: MATH 2110 Calculus and Analytic Geometry III

Note: The Math Department highly recommends a grade of at least "C" in the prerequisite course before attempting this course.

MECHANICAL ENGINEERING TECHNOLOGY**MEET 1134 Engineering Materials and Lab****3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course includes the study of the characteristics of ferrous and nonferrous engineering materials, plastics, wood, and concrete along with their production, fabrication, and heat treating processes. The student will gain hands-on experience dealing with hardness testing, impact testing, tensile testing, fatigue testing, shear and flexure testing, heat treatment, and metallurgical equipment, methods, and analysis. Prerequisite: DSPM 0850 or approval of program coordinator

MEET 1144 Machines Technology and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

In this course, the student is introduced to modern production machines, tooling, methods and practices. The introduction phase emphasizes unit systems, conversions, measuring instruments and scales, quality assurance, safety, library/Internet usage, problem

solving, and laboratory exercises/reports. Additional topics include an introduction to Geometric Dimensioning and Tolerancing (GDT) concepts and implementation. Prerequisite: DSPM 0850 or approval of program coordinator

MEET 1154 Statics and Dynamics and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course covers the two areas of engineering mechanics - statics and dynamics. The statics section covers problems solving techniques dealing with resultants, free-bodies, trusses, center of gravity, equilibrium, moment of inertia, and friction. The dynamics section covers problem solving techniques dealing with dynamic force systems, kinematics, kinetics, work and energy, impulse, momentum, power, and friction. Prerequisites: MATH 1740, PHYS 1310 or approval of program coordinator

MEET 1210 Cad Design I and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course is the first mechanical engineering course in Computer-Aided Design (CAD). It consists of a series of educational experiences relating to the field of engineering graphics that includes fundamental drafting principles, geometric constructions, orthographic projection, isometric projection, sectional views, and dimensioning techniques. The course presents logical and well-tested, step-by-step instruction about the AutoCAD commands, mode setting, drawing aids, shortcuts, and other valuable characteristics of AutoCAD. Prerequisite: DSPM 0850 or approval of program coordinator

MEET 1220 Cad Design II and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

CAD Design II is a continuation of MEET 1210. Its drafting topics consist of Geometric Dimensioning and Tolerancing, (GDT), threads and fasteners, welding notation, assembly drawings, working drawings, and auxiliary views. AutoCAD topics covered include effective use of layers, colors, and line types as well as symbol libraries, blocks, and system variables. Lecture and laboratory go hand-in-hand as the student develops intricate technical drawings. Prerequisite: MEET 1210 or approval of program coordinator

MEET 1314 Non-Destructive Testing and Lab**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course examines the industry standard methods used to test material without causing damage. The student will study Non-Destructive Testing (NDT) methods including ultrasonic, magnetic particle, radiographic, eddy current, and liquid penetrant. Additionally, the student will gain hands-on experience with ultrasonic, liquid penetrant, and magnetic particle equipment. Prerequisite: MEET 1134, INET 1004 or approval of program coordinator

MEET 1324 Destructive Testing and Lab**4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)**

This course studies the major methods employed by industry to test materials for specified properties. The student will gain hands-on experience with tensile testing, hardness testing, impact testing, chemical analysis, test standards, specimen preparation, metallography and weld testing. Prerequisite: MEET 1134, INET 1004 or program coordinator approval

MEET 1901-1908 Technical Scholarship Program I-VIII**4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)**

Students work part-time at their sponsoring companies training in areas related to their majors. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the dean and department chair; may take as many as eight courses

MEET 1931-1933 Co-operative Education**Work Experience I - III****3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

MEET 1941-1943 Cooperative Education

Work Experience IA - IIIA

4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

MEET 2144 Machine Design and Special Problems and Lab 4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

Machine Design and Special Problems is a course in which the principles of engineering technology are applied to the design of machines and mechanical systems. Calculations determining the size and shape of machine elements and the selection of materials are emphasized. In the laboratory portion of this course, the student utilizes the knowledge gained in this and previous courses to design, fabricate, analyze and report formally on a project selected by the student and approved by the instructor. Prerequisite: CCET 2203, MEET 1220, INET 1004 or approval of program coordinator

MEET 2154 Fluid Systems and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

The major divisions of this course include characteristics of non-compressible fluids; pressure, head and force; buoyancy and displacement; flow rate, velocity, and power; Bernoulli's equation and energy relationships; orifices, nozzles, and other flow devices; series and parallel pipe systems; flow in non-circular cross sections; open channel flow; flow measurement; pump selection; and forces created by fluids. Prerequisites: MATH 1750, PHYS 1310 or approval of program coordinator

MEET 2163 Electro-Mechanical Devices and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course includes electrical and electronic nomenclature and symbols; the use of the VOM, VTVM, and oscilloscope; direct and alternating current; transformers and regulators; motors and generators; electrical circuits; and techniques of electrical component selection. Prerequisites: MATH 1750, PHYS 1320 or approval of program coordinator

MEET 2173 Air Conditioning and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

In this course, air conditioning is used to introduce the student to the principles of thermodynamics and heat transfer. Topics covered include basic thermodynamic principles, heat and the change of state, heat transfer, psychometric chart techniques, human comfort factors, load and load calculations, equipment selection, mechanical refrigeration, fluid flow, evaporative systems, air distribution, and control systems. Prerequisites: MATH 1740, PHYS 1310 or approval of program coordinator

MEET 2210 3D Modeling I and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

The purpose of this course is to provide students with an understanding of the features, limitations, and considerations associated with the operation of a parametric Computer-Aided Design (CAD) 3D system. Emphasis is placed on the operation of Mechanical Desktop and Inventor 3D software. A variety of industrial-type problems are included as an integral part of the laboratory activities. Prerequisite: MEET 1220 or approval of program coordinator

MEET 2220 3D Modeling II and Lab

3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course is a continuation of MEET 2210 in which students continue to build their 3D skills. Students will develop 3D assemblies and mechanical systems for analysis. The models will be given surface textures and rendered to produce photo-realistic images. Students will also cover the basics of 3D model animation. Prerequisite: MEET 2210 or approval of program coordinator

MANAGEMENT

MGMT 1000 Introduction to Business

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a survey of business principles, problems, and procedures. It examines the nature of business organizations, production, office procedures, management and distribution of goods. It also analyzes personnel problems, budgets, financing, and technological forecasting. Included topics are pricing and promotion, motivation, leadership, labor unions, human resources, risk management, and international business.

MGMT 1200 Introduction to Quality

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course covers major approaches to quality assurance and productivity management including the Deming, the Juran, the Shikawa, and the Crosby approaches. Readings and discussions on these philosophies are an integral part of the course. Introduction to the tools and methods of quality improvement is provided.

MGMT 1636 Fundamentals of Management and Supervisory Techniques

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

The objective of this course is to enable supervisors/managers to increase their personal and professional effectiveness by developing basic supervisory skills. This course focuses on leadership skills, planning and scheduling, interpersonal communication, problem solving, program and personnel evaluations and training and development. This course may be used as an elective in Business and Commerce, Management Concentration.

MGMT 1638 Human Relations for Managers and Supervisors

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course is designed for managers and supervisors to further develop the knowledge and skills, which were covered in the Fundamentals Course, and to build a better understanding of the interactions and relationship that occur in the workplace. This course may be used as an elective in Business and Commerce, Management Concentration.

MGMT 1642 Communication Skills for Managers and Supervisors

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

The objective of this course is to assist supervisors and managers in becoming more effective communicators. The course will incorporate non-verbal, verbal, and written styles of communication and include an awareness of factors, that impact on clear communications. This course may be used as an elective in Business and Commerce, Management Concentration.

MGMT 1648 Advanced Management and Supervisory Techniques

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course takes the student through an in-depth scrutiny of company functions by studying 1) management of the future, 2) corporate culture and its significance, 3) corporate values vs. individual values, 4) individual and group motivation, 5) conflict management and communication, 6) qualities of a peak performer, 7) the dynamics of coaching and leadership, and 6) power affecting change. This course may be used as an elective in Business and Commerce, Management Concentration.

MGMT 1931-1933 Business Cooperative Internship

3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)

This work experience affords the student participation in the employer/employee relationship and on-the-job experience with public and private businesses or governmental agencies. Being an integral part of the work environment, the student encounters the true meaning of work, experiences the physical and psychological security work provides, and should gain an appreciation of the impact work has on today's society.

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

MGMT 2000 Project Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to increase project success for both new and experienced Project Managers. It presents a proven, customizable, best practices approach and provides a practical set of management tools, templates and techniques for planning, scheduling and controlling project activities to meet project performance, cost, and time activities.

MGMT 2010 Principles of Management I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of the human elements in management. Focus is on understanding self, examining factors of need-recognition, decision-making, leadership attitudes, group dynamics, effective communications, promoting supervisory development, and organizational development skills required to make modern organizations effective.

MGMT 2020 Principles of Management II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A short history of various management styles with emphasis on the systems approach and the role leadership plays in business success is included. Regardless of managerial level, students experience the dynamics of being a change agent interacting with all levels of the organization.

MGMT 2040 Strategic Planning**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an introduction to strategic planning with an emphasis on the integration of quality as an integral part of that plan. Included is a study of how Cost of Quality systems can point the way to problem areas. Emphasis is placed on the link between strategic planning and leadership and customer and market focus.

Prerequisites: MGMT 2030, MGMT 1850, ISDS 2830

MGMT 2060 Small Business Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course includes preparation for the selection and logical operation of a small business. A balanced program of all major aspects includes finance, personnel, sales, and physical and human factors. Case studies and projects are used to supplement the text. Prerequisites: ACCT 1210, MATH 1710, or approval of advisor

MGMT 2100 Credit Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to the credit function of a bank and its role in our economy. The basic tasks of evaluating risk, extending credit, and collecting payments will be examined. Changes in technology, marketing, and economic influences will also be evaluated. This class will merge theory and practice through the use of case studies and role-playing. Prerequisites: DSPW 0800, DSPR 0800, Corequisite: ACCT 1210

MGMT 2240 Business Ethics**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an analysis of business ethics and the responsibilities of business firms to employees, owners, consumers, and society. Prerequisites: DSPR 0800 or equivalent, DSPW 0800 or equivalent, Corequisite: ENGL 1010

MGMT 2300 Managing for Quality**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers process analysis and control systems, problem solving techniques, and the body of knowledge for the Certification for Quality Manager exam (CQM). A methodology for implementing Total Quality is also discussed. Prerequisites: MGMT 2010, MGMT 1200, ISDS 2830, MGMT 2040

MGMT 2410 Warehouse Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course offers theories of warehousing systems, documentation, layout, inventory management, materials handling, hazardous materials storage and shipping, and receiving fundamentals.

MGMT 2500 Human Resources Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

In this course, the principles of organization and management of personnel are covered. In the discussion of human resources management, emphasis is placed upon recruitment, selection, placement, and evaluation. Also addressed are grievances, merit rating, discipline, compensation and benefits, along with principles and practices of instructing and training employees.

MGMT 2505 Managing Diversity in the Workforce**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Today's workforce consists of employees of diverse gender, race, nationality, and cultural backgrounds. Whether a company is successful and competitive in corporate America today depends upon the ability of its managers to get their employees with diverse backgrounds to work together effectively and harmoniously. This special course discusses problems created by this diversity in the workforce and explores solutions to these problems.

MGMT 2506 Organizational Behavior**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course investigates personal and group behavior at work while pursuing the nature of group dynamics and corporate culture. Positive and negative behavioral motivation is investigated. Principles of effective psychological work attitudes are developed using contemporary concepts of organizational behavior authorities. Prerequisites: DR0084—Developmental Reading or equivalent, DE0084—Developmental English or equivalent, MGMT 1000—Introduction to Business

MGMT 2507 Labor Management Relations**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The history of the American labor movement, wage policy, productivity, collective bargaining, labor mobility, and government regulations of management and unions are explored.

MGMT 2508 Compensation Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers the four basic policies that every employer must consider in managing compensation: 1) internal consistency; 2) external competitiveness; 3) employee contributions; and 4) administration of the pay system. The integrating of these four factors plus compliance, the Government's role in compensation, pay discrimination, managing the system, and the role unions play in salary administration are discussed.

MGMT 2800 International Business**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The objective of this course is to provide students with an understanding of the growing global market place. Emphasis is placed on international cultural differences, global trade, monetary systems, marketing strategies, operations management, foreign direct investment, regional economic integration and the political economy of various countries. Prerequisites: DSPR 0800 or equivalent, DSPW 0800 or equivalent, MGMT 1000

MGMT 2806 Freight Claims**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed for transportation and distribution professionals and covers freight loss and damage claims in a practical manner. Documentation principles and practices are also explained.

MGMT 2807 International Traffic Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed for transportation and distribution professionals and covers freight loss and damage claims in a practical manner. Documentation principles and practices are also explained.

MGMT 2808 International Documentation**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course focuses on export documentation, letters of credit, and international business procedures. Also, the role of the traffic administrator in the world market is emphasized.

MGMT 2809 ISO 9000**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The International Organization for Standardization is a consortium of virtually all industrialized trade. This course teaches these standards to meet customer expectations and requirements. It also teaches how to develop a Quality Manual.

MGMT 2900 Transfer Credit in Mid-Management Specialization Area**6 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course number reflects credit awarded for CLEP examination, USAFI courses or tests, military service school, industrial training, cooperative education or college credit related to a Mid-Management technical specialty.

MGMT 2905 Mid-Management Specialty Work Experience**16 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course number reflects credit awarded for documented work experience of a managerial or supervisory nature. A maximum of 16 hours (8 hours credit for each year in excess of a three-year apprenticeship) can be credited to this course.

MGMT 2906 Special Topics in Business**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

In-depth study of selected business administration topic(s) designed to reinforce basic business knowledge and to further develop problem solving and research skills. Explores specific business issues in which to apply basic problem-solving techniques and skills. Prerequisite: Permission of an advisor

MILITARY SCIENCE**MILT 1100 Leadership Laboratory (Fall)****1 Credit Hour(s) 0 Lecture Hour(s) 2 Lab Hour(s)**

Two laboratory hours per week.

MILT 1101 Introduction to Military Science (Fall)**1 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

Introduction to Army ROTC with hands-on approach through several basic military skills. Lectures and practical exercises in military rappelling and mountaineering, fundamentals in weapons training and an overview of the role of the United States Army. There is no military obligation. Corequisite: MILT 1100

MILT 1111 Principles of Leadership and Confidence Building (Spring)**2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course begins the leader development process by providing the skills, knowledge and attitudes necessary for the student to exhibit the leadership characteristics and traits. Students study orienteering and the fundamentals of survival training. There is no military obligation. Corequisite: MILT 1115

MILT 1115 Leadership Laboratory (Spring)**1 Credit Hour(s) 0 Lecture Hour(s) 2 Lab Hour(s)**

Two laboratory hours per week.

MILT 2200 Leadership Laboratory (Fall)**1 Credit Hour(s) 0 Lecture Hour(s) 2 Lab Hour(s)**

Two laboratory hours per week.

MILT 2201 American Military History (Fall)**3 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

Developments since colonial period; emphasis on background and growth of national military and naval establishments, military and naval thought, difficulties accompanying modernization and assumption of global responsibilities and problem of relationship between civilian and military-naval sectors in democracy. There is no military obligation. Corequisite: MILT 2200

MILT 2211 Fundamental Survival Skills (Spring)**1 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

A continuation of the leader development process with an emphasis on military first aid and survival planning. There is no military obligation. Corequisite: MILT 2215

MILT 2215 Leadership Laboratory (Spring)**1 Credit Hour(s) 0 Lecture Hour(s) 2 Lab Hour(s)**

Two laboratory hours per week.

MILT 2221 Small Unit Tactics I (Fall)**2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course emphasizes preparation of the individual for combat. It includes preparation of potential leaders in combat through study of the knowledge and skills needed by an individual soldier. Skills are developed in planning and organizing by combat patrols. The course includes a series of field practicums. There is no military obligation.

MILT 2231 Small Unit Tactics II (Spring)**2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

Advanced concepts in reconnaissance, raid and ambush patrolling techniques, extended patrolling operations and application techniques for specialized equipment. Leadership skills through student-led patrols. Includes series of field practicum. Expands material taught in MILT 2221 but may be taken independently of MILT 2221. There is no military obligation.

MARKETING**MKTG 2000 Principles of Marketing****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course covers aspects of marketing history and the current marketing environment. Detailed analysis of product strategy including information for decision-making and selection of target markets is included. Basic practices and principles in retailing, wholesaling, and industrial areas of marketing are also covered. Case problems are utilized to integrate course materials. Corequisite: MGMT 1000 Introduction to Business

MKTG 2005 Professional Selling**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A study of the salesman's role in the business firm, planning and preparation of the sales presentation, and importance of product knowledge and understanding are covered in this class. Basic principles for successful selling are covered. Organizing the selling strategy and prospecting, presenting, closing and building future sales are stressed. Case studies and oral sales presentations are included.

MKTG 2007 Principles of Advertising**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Introduces origins and development of advertising. Discusses trade marking, packaging, legal structuring, ethics, and targeting. Emphasis is placed on the media including advantages, disadvantages, selection, and evaluation.

MKTG 2040 Purchasing and Materials Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This introductory course addresses modern practices and techniques of the purchasing function. Included in the coverage of purchasing are organization, quality, supplier selection, price determination, inventory and disposal, foreign purchasing, acquisition of capital assets and strategy. Prerequisites: DSPM 0850 or equivalent, and MGMT 1000

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MKTG 2100 Principles of Transportation**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is an introductory course providing an overview of the transportation and distribution industry. Historical development, legislation, and significant trends are discussed.

MKTG 2105 Physical Distribution and Logistics**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course offers an overview of the structure and management of physical distribution system. Course content includes warehousing, order processing, packaging, inventory control, physical location analysis, classifications and material handling. Prerequisite: MKTG 2100 or approval of advisor

MKTG 2400 Global Internet Marketing and Advertising T**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course investigates the strategic implications of using the Internet for marketing and advertising. It develops the concepts and techniques of planning, implementing, and controlling the marketing function. Monitoring environmental conditions, assessing opportunities, delineating target markets, conducting consumer/buyer research, planning and strategy procedures in a global network environment are also stressed. These topics are followed by a detailed study of the marketing mix and its management, with product, promotions, and pricing components being emphasized. Prerequisites: ENGL 1010, ISDS 2605, or permission of an advisor.

MKTG 2500 Introduction to Importing and Customhouse Brokerage**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces and examines the concepts and mechanics involved in importing merchandise into the United States. The course focus will be on the preparation of the necessary documentation in the Customs Brokerage process. Course content will also address aspects relating to the legal and commercial entities involved in the process. Topics include U.S. Customs, importers, brokers, modes of transportation, automation, documents, cargo release, entry issues.

MKTG 2505 Principles of Classification**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Principles of Classification provides a detailed study of each chapter of the Harmonized Tariff Schedules used to enter imported merchandise into the U.S. and determine duty rates. Students will learn about the laws and regulations concerning the use of the HTSUS as well as receive practical exercises on each of the 99 Chapters, General, Chapter, Section and Explanatory Notes. There are no prerequisites to this course.

MKTG 2506 Introduction to Customs Valuation**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed for the accurate appraisal of merchandise for Customs purposes. The emphasis is on a detailed study of 19 CFR 152, which contains the rules for imported goods for U.S. Customs under the Department of the Treasury.

MKTG 2507 Customs Modernization Act and Miscellaneous**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to use the Modernization Act by the U.S. Customs Service in a comprehensive effort to streamline and automate commercial operations. It presents the methods for importers and brokerage management to improve compliance with Customs laws and regulations.

MKTG 2508 U.S. Customs Regulations**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a detailed review of the key regulations provided in Title 19 of the Code of Federal Regulations (19 CFR). Title 19 of the CFR contains the rules that are enforced by Customs and by which importers and customhouse brokers must operate their business.

MEDICAL LABORATORY TECHNICIAN**MLT 1110 Orientation To Medical Laboratory****3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course explores clinical laboratory sciences with an analysis of routine tests performed in the medical laboratory, including terminology, basic laboratory skills, and an introduction to the health care team.

MLT 1120 Laboratory Operations**3 Credit Hour(s) 3 Lecture Hour(s) Lab Hour(s)**

This course involves instruction in basic medical laboratory operations, including quality assessment, selection and use of laboratory equipment, lab procedures and calculations, problem solving, and regulatory compliance. Prerequisite: MLT 1110

MLT 1500 Phlebotomy**3 Credit Hour(s) 2 Lecture Hour(s) 2 Lab Hour(s)**

This course covers the study of skin puncture and venipuncture in collecting blood for laboratory testing, including principles of proper phlebotomy techniques, specimen distribution, patient care, preparation and maintenance of equipment, record keeping and basic principles of anatomy and physiology.

MLT 1550 Phlebotomy Seminar**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

Interpersonal skills for phlebotomists are discussed, including basic concepts of communication, stress management, professional behavior, legal implications, current issues and a review of laboratory phlebotomy principles and procedures and a comprehensive examination. Emphasis is placed on specimen processing and computer entry data. Prerequisites MLT 1110 and 1500 and admission to the PLT program; Corequisite: MLT 1570 Phlebotomy Clinical Assignment.

MLT 1570 Phlebotomy Clinical Assignment**12 Credit Hour(s) 0 Lecture Hour(s) 12 Lab Hour(s)**

This course involves supervised training at various clinical facilities to provide experience in skin puncture, venipuncture, patient care, and specimen handling/distribution. Includes computer skills development. Prerequisite: MLT 1110 Orientation to the Medical Laboratory, MLT 1500 Phlebotomy, permission of instructor, and admission to the PLT program. Corequisite: 1550 Phlebotomy Seminar

MLT 2100 Medical Biochemistry**5 Credit Hour(s) 8 Lecture Hour(s) 8 Lab Hour(s)**

This course involves instruction in basic anatomy and pathophysiology of the urinary, digestive, circulatory, respiratory, endocrine and reproductive systems, including structure and metabolism of carbohydrates, lipids, NPN compounds, hormones, minerals, enzymes, electrolytes, fluids and drugs and their variation in disease. Principles of quality control and instrumentation are also covered. Prerequisite: CHEM 1010 or CHEM 1110, MLT 1120, admission to the MLT Program or permission of instructor

MLT 2120 Medical Hematology**6 Credit Hour(s) 6 Lecture Hour(s) 6 Lab Hour(s)**

This course is a study of clinical hematology with emphasis on the complete blood count and peripheral blood differential and the basic anatomy and physiology of the kidney, including principles of homeostasis, cell maturation, anemia, leukemias and other blood dyscrasias, making and staining blood smears, various routine test procedures, quality control, anatomy and physiology relative to hematopoiesis and cellular metabolism, and a study of the physiochemical and chemical properties of urine and the microscopic examination of urinary sediment. Prerequisite: Admission to MLT program or permission of instructor

MLT 2320 Medical Microbiology**7 Credit Hour(s) 7.5 Lecture Hour(s) 10 Lab Hour(s)**

The student studies microorganisms of medical importance to man and the body's immunological response to infectious agents, including anatomy and physiology relative to cellular and humoral immunity, principles of the immune response, structure and function of antigens and antibodies, antigen/antibody reactions, serological methods, proper collection, handling and examination of specimens, culture techniques, identification methods, drug sensitivity testing, and quality control procedures. Prerequisite: BIOL 1230, MLT 1110, and admission to the MLT program or permission of instructor

MLT 2510 Immunoematology**3 Credit Hour(s) 6 Lecture Hour(s) 10 Lab Hour(s)**

The student studies blood banking with emphasis on human blood group antigens and antibodies, including principles of donor requirements and phlebotomy, blood component preparation and use, blood storage, blood compatibility, genetics, problem solving techniques, quality control, and anatomy and physiology relative to transfusion therapy. Prerequisite: admission to the MLT program or permission of instructor

MLT 2710 Clinical Seminar**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is an analysis of organizational management, structure and current issues in the clinical laboratory, a review of medical laboratory principles and procedures and a comprehensive examination and presentation of topics by students and healthcare practitioners. Prerequisites: MLT 1110, MLT 1500, MLT 2100, MLT 2120, MLT 2320, MLT 2510, or permission of the instructor

MLT 2810 Clinical Assignment I**10 Credit Hour(s) 0 Lecture Hour(s) Lab Hour(s)**

Selected clinical experiences at the extended medical campuses, which provide students with an opportunity to develop competencies in hematology, immunology, microbiology, immunoematology, urinalysis, and medical biochemistry under the supervision of medical technologists. Prerequisites: MLT 1110, MLT 1500, MLT 2100, MLT 2120, MLT 2320, MLT 2510, or permission of the instructor

MLT 2820 Clinical Assignment II**4 Credit Hour(s) 0 Lecture Hour(s) Lab Hour(s)**

Continuation of Clinical Assignment I. Prerequisite: MLT 2810 or permission of instructor

MUSIC**MUS 1030 Music Appreciation****T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Music Appreciation is designed to increase the student's enjoyment and understanding of music. This course assists the student in listening to, recognizing and synthesizing elements that can apply to any musical work. The student discovers contemporary music of America as well as music of other periods and cultures. Prerequisite: DSPW 0800 and DSPR 0800

MUS 1050 Fundamentals of Music**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to basic music structural elements including notation, rhythm, scales intervals, and triads. Writing, sight singing, ear-training, and keyboarding skills are developed.

MUS 1080 Introduction to Music History**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course presents a broad base survey of music history. Studies include a review of fundamentals and a study of European and American music history.

MUS 1150 Basic Music Theory I**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of written and aural skills acquired in Fundamentals of Music. Emphasis is on utilizing these skills in writing music with a focus on developing working knowledge of musical notation, grammar, and vocabulary.

MUS 1160 Basic Music Theory II**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of Basic Music Theory I, with an emphasis on the harmonic aspects of music. An introduction to harmonic analysis and part writing along with continued work on more complex aspects of melody and rhythm is included. Prerequisite: MUS 1150 Basic Music Theory I

MUS 1200 Music And Worship**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an understanding of the use of music in all phases of church life.

MUS 1220 Basic Choral Conducting**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to choral techniques including basic musicianship, reading a score, gesture, voice training, and style.

MUS 1230 Hymnology**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of the origin, development, and perpetuation of hymns and tunes.

MUS 1250 Concert Choir**T****2 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)**

This course contains instruction in singing difficult music from all musical periods and styles. Audition required. Required course for all vocal music majors.

MUS 1350 Jazz Ensemble**2 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)**

This course involves the performance of jazz, rock, and contemporary idioms. Enrollment by audition.

MUS 1380 Class Percussion**T****2 Credit Hour(s) 0 Lecture Hour(s) 2 Lab Hour(s)**

This course involves instruction and daily practice in the percussion fundamentals. This class is open to all students.

MUS 1450 Southwest Singers**2 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)**

This course requires performance of gospel, spirituals and pop-jazz vocal music by a select choral ensemble of 15-25 singers. The group performs with rhythm section from the jazz ensemble.

MUS 1510 Private Brass Instruction**T****2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course presents individualized brass instruction at student's level and rate of development on the trumpet, horn, trombone, euphonium, or tuba.

MUS 1560 Private Percussion Instruction**T****2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course presents individualized percussion instruction at student's level and rate of development.

MUS 1600 Class Piano**T****2 Credit Hour(s) 0 Lecture Hour(s) 2 Lab Hour(s)**

This course contains instruction and daily practice on the piano. No previous training required.

MUS 1660 Private Guitar Instruction**T****2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course presents individualized guitar instruction at student's level and rate of development.

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MUS 1700 Class Voice T
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)
This course presents instruction in basic vocal technique involving development of breath technique, production of a good vocal sound, vowel formation and pronunciation in song and vocal literature.

MUS 1760 Private Woodwind Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized woodwind instruction at student's level and rate of development.

MUS 1800 Class Guitar T
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)
Instruction in fundamentals, principles and daily practice of guitar emphasizing positions, note reading, tone production and the mastery of simple songs is presented.

MUS 1910 Private Piano Instruction
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized piano instruction at student's level and rate of development.

MUS 1950 Private Voice Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course provides individualized voice instruction at student's level and rate of development.

MUS 2110 Arranging and Writing Music
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course is a study of music rhythm, melody, harmony, texture, timbre and form. Emphasis is on analysis, composition, music reading, ear training and arranging.

MUS 2120 Intermediate Music Theory I T
3 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)
This course is a continuation of written and aural skills acquired in Basic Music Theory II with emphasis on analysis of musical examples. It includes musical elements and how they affect the sound and performance of music from different style periods. Prerequisite: MUS 1160 Basic Music Theory II

MUS 2130 Intermediate Music Theory II T
3 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)
This is a continuation of written and aural skills acquired in Intermediate Music Theory I. This course emphasizes analysis and writing, and addresses modulation and chromaticism of part-writing and analysis. Prerequisite MUSC 2120 Intermediate Music Theory

MUS 2510 Private Brass Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized brass instruction at student's level and rate of development on the trumpet, horn, trombone, euphonic, or tuba.

MUS 2560 Private Percussion Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized percussion instruction at student's level and rate of development.

MUS 2660 Private Guitar Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized guitar instruction at student's level and rate of development.

MUS 2760 Private Woodwind Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized woodwind instruction at student's level and rate of development.

MUS 2910 Private Piano Instruction T
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized piano instruction at student's level and rate of development.

MUS 2950 Private Voice Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course provides individualized voice instruction at student's level and rate of development.

MUS 2990 Music Seminar
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is an in-depth study in the music field. Topics vary according to student needs.

MUS 510 Private Brass Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized brass instruction at student's level and rate of development on the trumpet, horn, trombone, euphonic, or tuba.

MUS 560 Private Percussion Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized percussion instruction at student's level and rate of developments.

MUS 760 Private Woodwind Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized woodwind instruction at student's level and rate of development.

MUS 910 Private Piano Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course presents individualized piano instruction at student's level and rate of development.

MUS 920 Private Organ Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course provides individualized organ instruction at student's level and rate of development. Audition required or permission through conference with instructors.

MUS 950 Private Voice Instruction T
2 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course provides individualized voice instruction at student's level and rate of development.

NATURAL SCIENCES

NSCI 1030 Natural Sciences
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is designed to meet core requirements for certain career programs. This core does not meet General Education Requirements for A.A. and A.S. degrees. The course includes an application of biological and physical concepts. It also includes an appreciation of man's relationship with his living and non-living environments.

NSCI 1031 Natural Sciences
1 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)
This course is designed to meet core requirements for career programs but not for A.A. or A.S. degrees. Application of biological and physical science concepts. Includes an appreciation of man's relationship with his living and non-living environments.

NSCI 2990 Special Topics in Natural Sciences
6 Credit Hour(s) 1-6 Lecture Hour(s) 1-6 Lab Hour(s)
A series of topics designed to attract students from all academic areas. Special topics titles are published in the class schedule as the topics are offered. Emphasis on appreciation of the natural sciences and their application to humanity.

NURSING

NURS 1114 Foundations of Nursing

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

This course introduces the student to the basic concepts of man as a unique individual having basic needs and the capability for adaptive responses to maintain health. With emphasis on the assessment component of the nursing process, the student focuses on the adult client's adaptation to internal or external stressors in the environment. Prerequisites: Admission to the nursing program; eligibility for college-level courses; Corequisites: BIOL 2010, NURS 1126, and NURS 1141

NURS 1126 Foundations of Nursing Clinical

3 Credit Hour(s) 0 Lecture Hour(s) 9 Lab Hour(s)

This course introduces the student to the components of the nursing process in identifying the basic needs of the adult client. Assessment skills are emphasized in identifying internal and external stressors and adaptive responses that adult clients experience in the maintenance or promotion of health. Health care environments include community senior citizen centers, skilled nursing facilities, and hospital settings. Prerequisites: Admission to the nursing program; eligibility for college-level courses; Corequisites: BIOL 2010, NURS 1114, and NURS 1141

NURS 1141 Dosage And Solutions

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

This course provides information essential for calculating dosages and understanding drug orders and labels. The student learns and practices the skills of dosages and calculations. Students learn to recognize common abbreviations and select correct dosages for medication administration. Critical thinking skills are applied to medication situations to emphasize the importance of accuracy and the avoidance of medication errors. Prerequisites: Admission to the Nursing program, eligibility to enroll in college-level courses; Corequisites: NURS 1114, NURS 1126, BIOL 2010

NURS 1213 Adult Health Nursing I

3 Credit Hour(s) 6 Lecture Hour(s) 0 Lab Hour(s)

This course utilizes the nursing process in promoting the adult client's adaptation to internal and external stressors as it relates to the promotion and maintenance of health. Emphasis is placed upon meeting the adult client's basic needs. Physiological, psychosocial, pathophysiological, and health teaching aspects of client care in acute health care environments are explored. Problem-solving and critical thinking skills are used to promote the client's adaptive responses to the interruption of health. This is a half semester course. Prerequisites: Successful completion of a Foundations of Nursing Proficiency Exam; NURS 1114, NURS 1126, NURS 1141, BIOL 2010; Corequisites: NURS1226, NURS 1242, NURS 1613, NURS 1626, BIOL 2020 and PSYC 1010.

NURS 1226 Adult Health Nursing I Clinical

2 Credit Hour(s) 0 Lecture Hour(s) 12 Lab Hour(s)

This course uses the nursing process to plan and provide interventions to assist an adult client in meeting basic needs in the hospital environment. The student has opportunities to assist the client in the adaptation to stressors, and in the maintenance and promotion of health. Emphasis is placed on the development of skills in assessment, clinical decision making, communication, and teaching/learning. This is a half semester course. Prerequisites: Successful completion of the Foundations of Nursing Proficiency exam; NURS 1114, NURS 1126, NURS 1141, BIOL 2010; Corequisites: NURS 1213, NURS 1242, NURS 1613, NURS 1626, BIOL 2020 and PSYC 1010

NURS 1242 Pharmacology

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course acquaints the students with drug classifications used in treating common conditions. Content will focus on actions, uses, side effects, and nursing implications for commonly used drugs. Prerequisites: NURS 1114, NURS 1126, NURS 1141, BIOL 2010; Corequisites: NURS 1213, NURS 1226, NURS 1613, NURS 1626, BIOL 2020, PSY 1010

NURS 1613 Nursing of the Childbearing Family

3 Credit Hour(s) 6 Lecture Hour(s) 0 Lab Hour(s)

This course focuses on the adaptation of the pregnant client and her family to internal and external stressors needed to meet basic needs. The nursing process is used to assist the pregnant client to maintain and promote health in varied clinical environments. This is a half-semester course. Prerequisites: Successful completion of the Foundations of Nursing Proficiency Exam; NURS 1114, NURS 1126, NURS 1141, BIOL 2010; Corequisites: NURS 1213, NURS 1226, NURS1242, NURS 1626, BIOL 2020, PSY 1010

NURS 1626 Nursing of the Childbearing Family Clinical

2 Credit Hour(s) 0 Lecture Hour(s) 12 Lab Hour(s)

This course focuses on the implementation of nursing care for the pregnant client and her family during the antepartum, intrapartum, postpartum, and the newborn periods. The nursing process is used to assist the client and her family in meeting basic needs while adapting to internal and external stressors to maintain and promote health. Clinical experiences are available in antepartal, labor and delivery, and postpartal areas as well as in the newborn nursery. This is a half-semester course. Prerequisites: Completion of the Foundations of Nursing Proficiency Exam, NURS 1114, NURS 1126, NURS 1141, BIOL 2010; Corequisites: NURS 1213, NURS 1226, NURS 1242, NURS 1613, BIOL 2020, PSY 1010.

NURS 1914 Professional Nursing Transitions

4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)

This course is designed for the role transition of the Licensed Practical Nurse and builds upon the student's present knowledge of the adult client's adaptation to internal and external stressors in meeting basic needs. The student learns to use the nursing process to promote and maintain health in a variety of client care hospital settings. Prerequisites: Admission to the LPN Mobility Track of the Nursing Program, current LPN licensure, BIOL 2010, BIOL 2020, BIOL 1230; Corequisites: NURS 1926, NURS 1242, NURS 1141

NURS 1926 Professional Nursing Transitions Clinical

1 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)

This course builds on the Licensed Practical Nurse's previous clinical experiences and uses the nursing process to plan and implement nursing care to assist the adult client in meeting basic needs in a hospital environment. The student is provided opportunities to assist the adult client with adaptation to internal and external stressors while maintaining and promoting health. Prerequisites: Admission to the Nursing program LPN Mobility Track, Current LPN licensure, eligibility for college level courses, BIOL 2010, BIOL 2020, BIOL 1230 Corequisites: NURS 1914, NURS 1141, NURS 1242

NURS 2113 Nursing Of Children

3 Credit Hour(s) 6 Lecture Hour(s) 0 Lab Hour(s)

This course focuses on the adaptation of the child to physical and developmental changes from infancy to adolescence. The nursing process is utilized in determining care needs for the ill child and family with stressors associated with common health problems in a health care environment. A comparative study of the healthy child puts emphasis on principles of health promotion and physical and psychological adaptive mechanisms necessary to meet basic needs and maintain health. This is a half-semester course. Prerequisites: Successful Completion of the Level I Proficiency Exam; BIOL 2020, PSYC 1010, NURS 1213, NURS 1226, NURS 1242, NURS 1613, NURS 1626; Corequisites: NURS 2313, NURS 2326, NURS 2126, BIOL 1230

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NURS 2126 Nursing of Children Clinical**2 Credit Hour(s) 0 Lecture Hour(s) 12 Lab Hour(s)**

This is a half semester course that emphasizes the use of nursing process to assist the child and family to meet basic needs in various health care environments. Students learn adaptive behaviors used by the family and the child in reaction to the internal and external stressors of hospitalization. Principles of teaching/learning are used to aid in promoting health for the infant, child and adolescent. A comparative study of the healthy child is provided through observational experiences in community agencies. Prerequisites: Successful completion of the Level I Proficiency Exam; BIOL 2020, PSY 1010, NURS 1213, NURS 1226, NURS 1242, NURS 1613, NURS 1626; Corequisites: NURS 2313, NURS 2326, NURS 2113, BIOL 1230.

NURS 2313 Mental Health Nursing**3 Credit Hour(s) 6 Lecture Hour(s) 0 Lab Hour(s)**

Theory focuses on the clients' adaptive responses to stressors in the internal and external environment along the mental health continuum. The concepts of holistic man, therapeutic use of self, self and cultural awareness and the nursing process are emphasized. Theory focuses on the clients behavior and growth and development as they strive to meet their basic needs in varied health care environments. This is a half-semester course. Prerequisites: Successful Completion of the Level 1 Proficiency Exam; BIOL 2020; NURS 1213; NURS 1226; NURS 1242; NURS 1613; NURS 1626; PSYC 1010; Corequisites: NURS 2326; NURS 2113; NURS 2126; BIOL 1230

NURS 2326 Mental Health Nursing Clinical**2 Credit Hour(s) 0 Lecture Hour(s) 12 Lab Hour(s)**

This course focuses on nursing interventions for mental health-psychiatric care in a variety of clinical practice environments. Critical thinking skills are utilized through the application of the nursing process and therapeutic communication skills to support clients' adaptive responses to internal and external stressors along the mental health continuum. The concepts of holistic man, therapeutic use of self, and self and cultural awareness are emphasized. Students focus on clients' behavior and growth and development in meeting their basic needs. This is a half-semester course. Prerequisites: Successful Completion of the Level I Proficiency Exam; BIOL 2020; PSY 1010, NURS 1213, NURS 1226, NURS 1242, NURS 1613, NURS 1626; Corequisites: NURS 2313, NURS 2126, NURS 2113, BIOL 1230

NURS 2412 Nursing Management**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to management principles and involves discussion of problems, issues, and stressors inherent in adaptation from student to practitioner. It explores the nurse's role in managing client care, delegating tasks, prioritizing care, and in supervising other health care workers in the health care environment. The effective use of the nursing process and communication skills in management is stressed. Emphasis is placed on rights, responsibilities, and legal/ethical implications of nursing management. Prerequisites: Successful completion of the third semester proficiency exam; NURS 2313, NURS 2326, NURS 2113, NURS 2126, BIOL 1230; Corequisites: NURS 2426, NURS 2414

NURS 2414 Adult Health Nursing II**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course further develops the student's knowledge of health, adaptation, and the utilization of the nursing processes in meeting basic needs of adult clients. Emphasis is placed on the utilization of critical thinking skills in determining clients' adaptive responses to internal and external stressors and the appropriate nursing actions to be performed. The nursing process is used to plan and implement comprehensive care to adult clients with complex health problems. Prerequisites: Successful completion of the third semester proficiency exam; NURS 2313, NURS 2326, NURS 2113, NURS 2126, BIOL 1230; Corequisites: NURS 2426, NURS 2412 .

NURS 2426 Adult Health Nursing II Clinical**3 Credit Hour(s) 0 Lecture Hour(s) 9 Lab Hour(s)**

This course further develops the student's knowledge of health, adaptation, and the utilization of the nursing process in meeting basic needs for adult clients in varied health care environments. Emphasis is placed on the utilization of critical thinking skills in determining clients' adaptive responses to stressors created by a complexity of health

problems and the nursing actions to be implemented. The student collaborates with other health team members and practices leadership skills. Students are expected to perform activities within the scope of accepted legal/ethical standards. Pre-requisites: Successful completion of the third semester proficiency exam; BIOL 1230; NURS 2113; NURS 2126; NURS 2313; NURS 2326; Corequisites: NURS 2414; NURS 2412

NURS 2990 Special Topics in Nursing**3 Credit Hour(s) 6 Lecture Hour(s) 0 Lab Hour(s)**

In-depth study of concepts related to selected aspects of nursing. Permission of the department chair required.

OFFICE ADMINISTRATION**OFAD 1050 Business Communication****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The course is a study of logical, effective and creative methods of business communication. The course covers business writing styles, proper physical presentation of written communication, selected business letter types, memoranda, and reports, and resume and application letters. Prerequisite: ENGL 1010

OFAD 1080 Computer Data Entry**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Development of ten-key data entry skills and introduction to data management systems will be covered. Use of data management software to create and modify file structure, update database files, retrieve, search for, and print information, and generate simple reports and mailing labels. Prerequisite: OFAD 1110

OFAD 1110 Keyboarding I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is an introductory course to develop basic keyboarding skills that are needed to input alphabetic and numeric information accurately and quickly by touch on microcomputers. Emphasis on learning the touch operation of the computer keyboard is stressed, as well as building speed and accuracy. Basic document formatting is taught.

OFAD 1120 Keyboarding II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides practice on the alphabetic keyboard to develop competencies for employment testing. Development of speed and accuracy is emphasized. This course includes detailed and precise information for preparing and formatting business documents using word processing. Emphasis is placed on using proper formatting in the preparation of business letters, memoranda, reports, and tables. Keyboarding proficiency required. Students must demonstrate ability to type 25 wpm at the first class meeting.

OFAD 1130 Keyboarding III**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to further build speed and accuracy on the keyboard. This is a continuation of keyboarding including office correspondence and other documents. Prerequisite: OFAD 1120 or proven keyboarding speed of 40 wpm for 5 minutes with no more than one error per minute

OFAD 1140 Records Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course explores methods for temporary and permanent record storage including alphabetic, geographic, numeric, and subject filing systems. It covers mechanical, computerized and manual filing and retrieval methods, control of filed information, micro records, and the organization and operation of records management programs.

OFAD 1210 Microsoft Word I**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

The application of word processing concepts and skills in entering editing, formatting, and executing commands using the various functions available in Microsoft Word for Windows are emphasized in this course. Some of the features taught include: copying and moving text, character and paragraph formatting, wizards and templates, merging, working with tabs, working with multiple documents, document references (headers, footers, footnotes and endnotes). This course meets MOS certification requirements. Students must demonstrate ability to type 25 wpm at the first class meeting.

OFAD 1410 Excel I**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a hands-on course in which the student uses an electronic spreadsheet to plan, create, manipulate, and print worksheets. Topics include entering and editing data, formatting a worksheet, use of formulas and common functions, charts, advanced printing, and linking worksheets. This course meets Core MOS certification requirements. Students must demonstrate ability to type 25 wpm at the first class meeting.

OFAD 1510 Microcomputer Office Applications**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is designed to provide the student with computer skills in the Windows environment. Hands-on instruction covers Windows, word processing, spreadsheets, database management, presentations, and desktop information management. Students must demonstrate ability to type 25 wpm at the first class meeting.

OFAD 1931-1932 Co-operative Education Work Experience I - II**3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)**

In this course the student receives supervised work experience in the office of an established business. Placement is made by the Office of Cooperative Education upon completion of one semester of technical coursework, or after all requirements for employment are met. The student utilizes knowledge gained in any or all the office system courses to accomplish tasks as assigned within the modern office setting. Prerequisite or Corequisite: Financial Administrative Assistant Concentration: completion of one semester or technical coursework; Administrative Assistant Concentration: OFAD 2210, OFAD 2610; Legal Assistant Concentration; LEGL 1080; Medical Administrative Assistant concentration: LEGL 1080, OFAD 2730, Insurance Administrative Assistant concentration: FINR 2000, FINR 2010

OFAD 2040 Word Processing Transcription**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This is a course designed to develop skill in the use of transcription equipment including transcribing recorded communication quickly and accurately on the microcomputer. Emphasis is placed on vocabulary building, proper punctuation, spelling, letter styles and placement, proofreading, and grammar. Prerequisites: OFAD 1210

OFAD 2210 Microsoft Word II**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course teaches the advanced Microsoft Word features needed for the expert user. Students will create personalized form letters with envelopes and mailing labels; formal and technical reports; proposals and studies; newsletters, brochures, and manuals; and forms. Integrating Word with other programs and the World Wide Web will also be taught. This course meets MOUS certification requirements. Prerequisite: OFAD 1210

OFAD 2310 PowerPoint and Outlook**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course develops skills in using PowerPoint and Outlook needed for the expert user. In creating presentations using PowerPoint, students will learn to add visual elements, bring data in from other sources, modify and customize a presentation, and prepare presentations for distribution. Students will learn to use Outlook to organize their work and to communicate with others by using all the components of Outlook such as the journal, notes manager, mail client, contact and task managers, and calendar. Integrating PowerPoint and Outlook with other programs and the world wide web will also be

taught. This course meets MOS certification requirements. Prerequisites: OFAD 1110 or advisor approval

OFAD 2410 Excel II**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course teaches the advanced Microsoft Excel features needed for the expert user. Topics include custom and conditional formatting, importing and exporting data, using range names, use of templates, managing multiple workbooks, consolidating worksheets, workgroup functions and security, auditing features, and macros. Also included are use of Excel databases, PivotTables, and data analysis tools such as Goal Seek, Solver, and Scenarios. This course meets Expert MOS certification requirements. Prerequisite: OFAD1410

OFAD 2450 Desktop Publishing Using Word**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of publishing techniques used with microcomputers. Design techniques and desktop functions will be discussed and used. Types of desktop documents will be discussed and created. Prerequisite: OFAD 1120 or minimum keyboarding speed of 40 words per minute and OFAD 2210

OFAD 2610 Administrative Office Management**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of practices and procedures of current office concepts including travel arrangements, itinerary planning, conference arrangements, etc. Also included are supervision of office personnel and labor-management relations. Prerequisites: OFAD 1120, ACCT 1210, OFAD 1140, and OFAD 1510 or CMPT 1010

OFAD 2640 Medical Terminology, Anatomy and Physiology I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course will combine the relationship of anatomy, physiology and medical terminology as they relate to the body systems, anatomical structures and variety of diseases that afflict humans. Prefixes, suffixes, abbreviations, plural endings, word roots, and combined forms are covered. Terms and structures are presented that relate to all areas of medical science, hospital service, and paramedical facilities. Emphasis will be on the planes of the body as well as the digestive, urinary, reproductive, nervous, and respiratory systems.

OFAD 2650 Medical Terminology, Anatomy and Physiology II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Second of two semester courses for the medical administrative assistant curriculum requirements. Students will study terminology associated with the structure and function of the circulatory, lymphatic, muscular, skeletal, integumentary, endocrine systems, and the sense organs. Additional emphasis will be placed on oncology, nuclear medicine, pharmacology and psychiatry. Prerequisite: OFAD 2640

OFAD 2700 Beginning Medical Office Transcription**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Beginning Medical Office Transcription is designed to introduce the student to the use of dictation and transcription equipment used in medical office reports and correspondence. Reports include memos, letters, history and physicals, consultations, office notes, SOAP notes, operative reports, discharge summaries and simple radiological reports. Skill in the following areas will also be stressed: medical terminology grammar, keyboarding and the introduction of reference materials. Prerequisites: OFAD 2640, OFAD 1210 or OFAD 1220

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OFAD 2710 Advanced Medical Office Transcription**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Advanced Medical Office Transcription is designed to enhance the student's skill in the transcription of dictation used in medical office and hospital reports. Reports include MRI brain scans, letters, discharge summaries, neuropsychological reports, history and physicals, chart notes, pathology reports, consultations and autopsy reports. Skill in the following areas will also be stressed: medical terminology from a variety of medical specialties, grammar skills, keyboarding skills, and the use of reference materials. Prerequisite: OFAD 2700

OFAD 2730 Medical Office Practice**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Technical, practical information is presented through realistic medical office simulations. Role playing situations, project assignments, and medical vocabulary review for the office assistant are included. Prerequisites: OFAD2640, OFAD 1110

OFAD 2740 CPT Coding I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

In this course the student explores the major changes that have been implemented in processing insurance and patient information in the medical office environment. CPT Coding and ICD-9 classification standards are emphasized, using various systems for processing insurance claims and payment reimbursements.

OFAD 2750 CPT Coding II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course focuses on the current advanced-level descriptive terms and five-digit identifying codes and modifiers for reporting medical services performed by physicians. CPT and ICD-9 descriptive terms, numeric identifying codes and modifiers for reporting medical services, and procedures recommended by the American Health Information Management Association are covered extensively. Prerequisite: OFAD 2740

OFAD 2760 Ethics and Law for Healthcare**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course will emphasize the analysis of human values and basic ethical positions which guide people's lives as they relate to the healthcare profession. Laws that guide contemporary medical practice, biological innovations, and the impact of scientific and technological advancements will be reviewed.

OFAD 2990 Special Topics in Office Administration**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an in-depth study of selected office technology topic(s) designed to reinforce basic knowledge and to further develop problem solving skills. Departmental approval required.

PHYSICAL EDUCATION**PHED 1110 Basketball****T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

Instruction in basic basketball fundamentals is presented.

PHED 1130 Bowling**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

This course provides instruction in the basics of bowling, including equipment rules, scoring, stance, delivery and release.

PHED 1300 Golf**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

This course provides introduction to the game of golf, including the basics of the grip, stance and swing, equipment, history, rules, etiquette, scoring, and playing on the course.

PHED 1380 Racquetball**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

The fundamentals of racquetball, including equipment, skills, strategy, competition, and techniques are taught.

PHED 1510 Physical Conditioning**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

This course is designed to improve individual's flexibility, strength, and cardiovascular endurance.

PHED 1550 Aerobics**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

A workout class focused on a variety of cardio-respiratory endurance exercise, walking, aerobic dance, kickboxing, and bench aerobics - with resistance and flexibility exercises. It includes concepts of exercise, health and fitness as they relate to cardiovascular health.

PHED 1560 Bench Step Aerobics**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

This course provides instruction in bench-step activity to enhance cardiovascular fitness and develop muscle strength, endurance, and flexibility. Other topics include fitness concepts, exercise facts, diet, weight control, and consumer education.

PHED 1570 Body Sculpting: Shape, Tone and Tighten**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

This course contains instruction in body sculpting through callisthenic exercises and includes health related fitness concepts, exercise principles, diet, nutrition, weight control, contra-indicated exercises, and consumer education.

PHED 1680 Self-Defense/Karate**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

The student develops skills through practice of the basic kicks, blocks, and punches in Karate. Various strategies for individual self-defense are introduced.

PHED 1880 Tennis**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

This is a lifetime recreational course to enable students to acquire a reasonable level of proficiency in the fundamental skills of tennis and develop an understanding of the game.

PHED 1940 Volleyball**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

Instruction in basic skills, history, rules, strategy, and team play of volleyball are presented in this course.

PHED 1960 Weightlifting**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

The student receives introduction to the various lifting methods involved in the development of muscular tone and conditioning. In all lifting methods, safety is stressed.

PHED 1980 Exercise Machines: Weights and Aerobics**T****2 Credit Hour(s) 1 Lecture Hour(s) 2 Lab Hour(s)**

This is an exercise class designed to enhance the health related aspects of fitness through the utilization of machine/free weight resistance equipment and cardiovascular endurance machines including a treadmill, stepper and exercise bikes.

PHED 2990 Special Topics in Health and Physical Education**3 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)**

This course is a study of special topics and development of specific skills as related to each topic.

PHILOSOPHY

PHIL 1030 Introduction to Philosophy T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is an introduction to basic philosophical problems in exploring the meaning of human life and reflecting our position in the world. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

PHIL 2010 Introduction to Logic T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a study of deductive logical methods and their use in scientific inquiry, common-sense reasoning and formal systems. Topics include a study of informal fallacies and the logic and semantic tools required for analysis of fallacious arguments and misleading claims and elementary symbolic logic. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

PHIL 2030 Values in the Modern World T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
The course examines the different ways religion, political theory, science, and ethics define values and their relevance to responsible moral choices in today's society. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

PHARMACY TECHNICIAN

PHRM 1010 Introduction to Pharmacy Operations
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course includes a definition of the pharmacy technician role and responsibilities; opportunities available to graduates of the Pharmacy Technician Program; and a generalized overview of the practice of pharmacy. The student is oriented to the institutional setting, including equipment and laws pertaining to the practice of pharmacy. Prerequisite: Admission to program or permission from instructor; Corequisite: PHRM, 1030, 1040, 1050, AHS 1020

PHRM 1030 Measurements and Calculations
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course reviews basic math computation including Roman Numerals, addition, subtraction, multiplication, division of whole numbers, and fractions. This course covers all health, measurements in the area of avoirdupois, apothecary, and metric systems as related to pharmaceutical calculations. Prerequisite: Admission to program; permission from instructor; Corequisites: PHRM 1010, 1040, 1050, AHS 1020

PHRM 1040 Structure and Function of Body Systems
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course focuses on the structure and function of the nine body systems. Each system is discussed in detail with a focus on medications applicable to that system. Emphasis is placed throughout the course on presenting the human body as a living, functioning, hemostatic organism. Prerequisite: Admission to program; permission from instructor; Corequisites: PHRM 1010, 1030, 1050, AHS 1020

PHRM 1050 Personal-Vocational Relationships
2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)
This course is a study of human relations, including oral and written communication. Prerequisite: Admission to program; permission from instructor; Corequisites: PHRM 1010, 1030, 1040, AHS 1020

PHRM 1060 Sterile Products
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course introduces the operation of an intravenous admixture program. Specific study topics include medications and parenteral administration; facilities; equipment; supplies utilized in admixture preparation, techniques utilized in parental product compounding; terminology and calculations used in preparation of parenteral products; parenteral medication incompatibilities; and quality assurance in the preparation of parenteral products. Prerequisite: PHARM 1010, 1030, 1040, 1050 with a "C" or better; Corequisites: PHARM 1070, 1080, 1090, 1100

PHRM 1070 Pharmacology
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a practical study of the various aspects of drug activity. Emphasis is placed on drug classification, dosages, routes of administration, generic and trade names of drugs, and appropriate use of references. Prerequisite: PHARM 1010, 1030, 1040, 1050 with a "C" or better; Corequisites: PHRM 1060, 1080, 1090, 1100

PHRM 1080 Computer Sciences
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is an introduction to fundamental computer operations, which includes general computer terminology and the alphabetic and numeric keyboard using the touch method of operation. Prerequisite: PHARM 1010, 1030, 1040, 1050 with a "C" or better; Corequisites: PHRM 1060, 1070, 1090, 1100

PHRM 1090 Pharmacy Practice
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course acquaints the student with prescription and medication order policies and procedures in all pharmacy settings. Students interpret, label, compound and dispense prescriptions. Students will utilize profile systems and describe inventory control procedures. Students will utilize profile systems and describe inventory control procedures. Students will become familiar with unit dose drug distribution, floor stock distribution, narcotic control, and inventory control. Drug information references and compounding, with an emphasis on the prescription balance and weight are also reviewed. Prerequisite: PHARM 1010, 1030, 1040, 1050 with a "C" or better

PHRM 1100 Third Party Reimbursements
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course introduces the use of insurance, TennCare, Medicare and other third party providers. The student will be able to identify and complete common insurance forms. In addition, the student will be able to explain the use of insurance codes in processing insurance forms. Prerequisite: PHARM 1010, 1030, 1040, 1050 with a "C" or better; Corequisites: PHRM 1060, 1070, 1080, 1090

PHRM 1110 Clinical Pharmacy Experience I
3 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)
This course is a clinical practicum in a hospital pharmacy setting. Prerequisites: Completion of PHRM 1010, 1030, 1040, 1050, 1060, 1070, 1080, 1090, 1110 with a grade of "C" or better

PHRM 1120 Clinical Pharmacy Experience II
3 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)
This course is a clinical practicum in retail pharmacy setting. Prerequisites: Completion of PHRM 1010-1100 with a "C" or better

PHYSICS

PHYS 1010 Introduction To Physics T
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
An introductory study of physics involving a minimum of mathematics for non-science majors. Topics include motion, properties of matter, heat, sound, electromagnetism, light and modern physics.

PHYS 1030 Introduction to Astronomy LEC T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
A survey course for non-science majors and/or for personal enrichment that provides a systematic understanding of the universe. Topics include basic principles and methods of astronomy, formation and features of the solar system, properties and evolution of stars, galaxies, cosmology and life in the universe

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PHYS 1031 Introduction to Astronomy Lab T
1 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)
Laboratory experiments and exercises to accompany PHYS 1030–Introduction to Astronomy. Topics are designed to enhance the understanding of the lectures and the textbook. Prerequisite or Corequisite: ASTR 1030

PHYS 1210 Physics For Health Sciences
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
This course introduces physics applications in allied health technology. Topics include measurement techniques, force and motion, energy, heat, fluids, sound, electricity and magnetism, optics, atomic physics, and radioactivity. Prerequisite: MATH 0850 Intermediate Algebra or permission of instructor

PHYS 1310 Technical Physics I
3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)
This course is designed for students pursuing an AAS degree in an engineering technology program requiring physics. The course includes a study of measurement, forces, motion, energy and power, heat, gas laws, hydraulics, and simple D.C. Circuits. Lab experiences are included. Prerequisite: DSPM 0850 Intermediate Algebra or equivalent

PHYS 1320 Technical Physics II
3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)
This course is designed for students pursuing an AAS degree in an engineering technology program requiring physics. This course is a continuation of PHYS 1310–Technical Physics I and includes a study of the physics of electricity, magnetism, light, and modern physics. Laboratory experiments are included as an integral part of the course. Prerequisite: PHYS 1310

PHYS 2010 General Physics I T
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
This is the first of a two-semester lab course for science majors, pre-professional students and pre-engineering students. Topics include vectors with application to statics, kinematics and dynamics, Newton's laws and their applications to motion and equilibrium, concepts and applications of energy and momentum conservation principles, harmonic motion, and thermodynamics. Prerequisite: MATH 1710 College Algebra or MATH 1720 Trigonometry, MATH 1740 Algebra and Trigonometry I, MATH 1830 Elementary Calculus or permission of instructor

PHYS 2020 General Physics II T
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
This course is a continuation of General Physics I. Topics include principles/applications of electricity and magnetism, geometrical and physical optics, radioactivity and modern physics. Prerequisite: PHYS 2010 General Physics I or permission of instructor

PHYS 2110 Physics for Science and Engineering I T
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
First of a two-semester lab course for science majors and pre-engineering students. Topics include vectors, kinematics, dynamics of motion, work and energy, collision, oscillations, gravitation, and the kinetic theory of gases. Prerequisite: MATH 2110 Analytic Geometry and Calculus or permission of instructor

PHYS 2120 Physics for Science and Engineering II T
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
Continuation of Physics for Science and Engineering I. Topics include thermodynamics, electrostatics, simple circuits, electromagnetic waves, Maxwell equations, geometrical and physical optics, and light and quantum physics. Prerequisite: PHYS 2110 Physics for Science Engineering I or permission of instructor

PHYS 2250 Atomic and Nuclear Physics
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
This course is a study of the major topics of modern physics, with lab experiments. Prerequisites: PHYS 1120 and MATH 1910

POLITICAL SCIENCE

POLI 1040 Internship T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This internship offers the opportunity to gain hands-on experience or to upgrade skills for students either aspiring to careers or seeking professional advancement in public administration, public affairs, law or other interdisciplinary fields. Approximately 45 work experience hours per semester equals 1 hour of credit. Students may enroll for a second time. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

POLI 2010 American National Government T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
The course presents the development, structure and process of the American system of government. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

POLI 2020 American National Government: The Institutional Process T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
Politics and institutions will be compared to the Grand Political Game and Institutional Functionalism. Students will study how power is distributed and authority is conferred by groups and the politically powerful entities. Prerequisites: DSPW 0800, DSPR 0800, or equivalent

POLI 2030 International Relations T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
Students survey the concepts, processes, and relationships involved in the interactions of nations. Prerequisites: DSPW 0800, DSPR 0800, or equivalent

POLI 2040 Diversity Of Socio-Politics T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is designed to identify and investigate contemporary social, legal, economic and political elements that are relevant to quality of life and are considered to be educationally controversial in nature. This course will serve as an introduction and orientation to policy study, critical thinking, and problem solving techniques for students. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

POLI 2050 Politics Of Feminist Theory T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is an examination of contemporary feminist analyses of gender relations, how they are constituted and experienced and how social structures maintaining sexist hierarchies intersect with hierarchies of race, class and ethnicity. Connections between practice and theory will be investigated. Prerequisites: DSPW 0800, DSPR 0800, or equivalent

POLI 2060 Black Politics T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course examines the past, present and future roles of African Americans in the American political system. The key focus will encompass the economic, social and political position of blacks as related to the larger population, which includes the study of hyperpluralism. Prerequisites: DSPW 0800, DSPR 0800, or equivalent

PHYSICAL SCIENCE

PSCI 1010 Physical Science I T
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
This course is the first of a two-semester lab course for non-science majors. Topics include measurement, motion, force, energy, heat, sound, optics, electric and magnetism, atomic physics and nuclear physics.

PSCI 1020 Physical Science II T
4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)
This course is a continuation of Physical Science I. Topics include chemical bonding, chemical reactions, astronomy, environmental science, geology and meteorology.

PSYCHOLOGY

PSYC 1010 General Psychology I T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

The course introduces students to social aspects of psychology as a behavioral science. Studies include personality, abnormal behavior, psychotherapy, intelligence, social, developmental, psychology, and applied psychology. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

PSYC 1020 General Psychology II T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course introduces students to the biological aspects of psychology as a behavioral science. Studies include learning, sensation and perception, physiological and comparative psychology, and psychopharmacology. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

PSYC 1040 Human Growth and Development T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Principles and processes of human growth and development from conception to death are explored. Students examine physical, mental, and social development from a life-span perspective. DSPW 0800, DSPR 0800 or equivalent

PSYC 2010 Child Development and Services T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Students study the psychological and physiological growth and development of children beginning with conception and continuing to adolescence. Special attention is given to social and health services that enhance this developmental process. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

PSYC 2020 Abnormal Psychology T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Basic concepts of psychopathology with emphasis on the development of behavior deviations, descriptions of various neurotic and psychotic reactions, and an introduction to methods of psychotherapy will be studied. Prerequisite DSPW 0800, DSPR 0800 or equivalent

PSYC 2030 Human Relations at Work T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Development of principles and techniques affecting human behavior and motives in situations where people work together is the primary focus in this course. Emphasis is placed on business, industrial, hospital and other institutional settings. The course includes leadership development, organizational hierarchy, communication, group processes, team spirit, and mutual helpfulness. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

PHYSICAL THERAPY ASSISTANT

PTA 2410 PTA Clinical Procedures I

3 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course explores the basic theory and application of clinical procedures and physical agents used in the practice of physical therapy. Thermal agents are the primary topic, but the course also includes instruction in positioning and draping, massage, cold LASER, intermittent pneumatic compression, and elastic (ACE) wraps. Prerequisite: Acceptance into the PTA program

PTA 2420 PTA Clinical Arts I

1 Credit Hour(s) 0 Lecture Hour(s) 3 Lab Hour(s)

This course includes patient care skills fundamental to the practice of physical therapy including patient positioning and turning, transfer training, wheelchair management, gait training, aseptic techniques, assessment of vital signs, and introduction to special equipment. Prerequisite: Acceptance into the PTA program

PTA 2430 PTA Seminar I

1 Credit Hour(s) 2 Lecture Hour(s) 4 Lab Hour(s)

This course is an introduction to the profession of physical therapy and responsibilities of the physical therapist assistant, and includes study of the history of physical therapy and role of the physical therapist

assistant in the health care system. Unit on medical terminology; practice in reviewing medical records, documentation and charting; sessions on improving interpersonal communication skills in clinical practice; and clinical experience consisting of one-half day per week for the final four weeks of the term are also included. Prerequisite: Acceptance into the PTA program (4 Clinic Hours/week last 4 weeks of term)

PTA 2440 PTA Clinical Education I

1 Credit Hour(s) 0 Lecture Hour(s) 40 Lab Hour(s)

This course is a supervised clinical experience during which students practice skills and apply knowledge learned in classroom to patient care activities. Students affiliate for two weeks in area physical therapy clinics at end of Summer Term. Prerequisite: Admission to the PTA program and successful completion of all Summer Term courses preceding this course (40 Clinic Hours/week for two weeks at end of Summer Term)

PTA 2450 Kinesiology for the PTA

3 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course reviews kinematics, kinetics, muscle and nerve physiology, and surface anatomy. An emphasis is placed on actions, origins, insertions, and innervations of skeletal muscle. Prerequisite: Acceptance into the PTA program

PTA 2510 PTA Clinical Procedures II

2 Credit Hour(s) 1 Lecture Hour(s) 3 Lab Hour(s)

This course includes basic theory and application of clinical electrotherapy used in the practice of physical therapy. Prerequisite: Successful completion of Summer Term PTA courses

PTA 2520 PTA Clinical Arts II

4 Credit Hour(s) 3 Lecture Hour(s) 3 Lab Hour(s)

This course presents an overview of basic orthopedic and medical conditions that may require therapeutic exercise. Prerequisite: Successful completion of Summer Term PTA courses

PTA 2530 PTA Seminar II

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

Basic teaching/learning principles are applied to patient education activities and include discussion of student's role in clinical education, e.g., assuming responsibility for learning, evaluating learning experiences, and appropriate clinical behavior. Prerequisite: Successful completion of Summer Term PTA course

PTA 2540 PTA Clinical Education II

1 Credit Hour(s) 0 Lecture Hour(s) 40 Lab Hour(s)

This course includes supervised clinical experiences during which students practice skills and apply knowledge learned in the classroom to patient care activities. Students are assigned to area physical therapy clinics for three weeks, full-time. Prerequisite: Successful completion of all Fall semester courses preceding this course (40 Clinic Hours/week for the final three weeks of Fall Semester)

PTA 2550 Pathophysiology for the PTA

2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

Introduces diseases and disorders commonly encountered in patients referred to physical therapy. Etiology, signs and symptoms, general treatment considerations, and prognosis of each disease/disorder are discussed. Prerequisite: Successful completion of Summer Term PTA courses

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

PTA 2560 Assessment Techniques for PTA**3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)**

This course includes common assessment techniques used by the PTA in clinical practice and includes assessment of patient orientation, sensation, edema, joint motion (goniometry), muscle strength (manual muscle testing), posture and gait. Prerequisite: Successful completion of Summer term courses

PTA 2610 PTA Clinical Procedures III**3 Credit Hour(s) 6 Lecture Hour(s) 2 Lab Hour(s)**

This course includes physical therapy management of patients with cardiac, pulmonary, vascular and lymphatic disorders and instruction in wound management, prosthetics and orthotics. Clinical problem solving skills are assessed via a pre-test, discussion and a post test. Prerequisite: Successful completion of Fall Semester PTA courses (2 Lab Hours/week for first 5 weeks of semester)

PTA 2620 PTA Clinical Arts III**4 Credit Hour(s) 7 Lecture Hour(s) 5 Lab Hour(s)**

This course covers normal development from conception to birth, normal reflex development and developmental milestones after birth. General concepts of aging included as basis for understanding problems encountered by patients with neuromotor and neuromuscular disorders. Physical therapy management of patients with cerebrovascular accidents, head trauma, cerebral palsy, and spinal cord injuries included. Primary neurophysiological approaches (NDT, PNF, Brunnstrom, and Rood) are covered, as well as a variety of other treatment techniques and therapeutic exercises. Prerequisite: Successful completion of Fall Semester PTA courses (5 Lab Hours/week for first 5 weeks of semester)

PTA 2630 PTA Seminar III**1 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course includes unit on medical ethics, introduction to clinical research in physical therapy, and sessions on physical therapy administration and management. Prerequisite: Successful completion of Fall Semester PTA classes (4 Class Hours per week for first 5 weeks of semester)

PTA 2640 PTA Clinical Education III**4 Credit Hour(s) 0 Lecture Hour(s) 40 Lab Hour(s)**

This course includes supervised clinical experiences during which student practices skills and applies knowledge learned in the classroom to patient care activities. Students are assigned to area physical therapy clinics for two full-time affiliations totaling eight and one-half weeks. Prerequisite: Successful completion of Spring semester PTA courses preceding this course (40 Clinic Hours/week for eight and one-half weeks at end of Spring semester)

RADIOLOGIC TECHNOLOGY**RADT 1010 Introduction to Radiologic Technology****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an introduction to the basic aspects and principles of radiologic technology and the health care system including radiation protection, patient care and safety, agency structure and function, and radiology ethics. Open to all students.

RADT 1020 Fundamentals Radiologic Technology I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides basic material necessary to an understanding of the necessity of radiation protection, of the basic photographic supplies, equipment and principles of radiographic production, of the prime factors used in radiographic production, and of the various types of equipment used in the field of radiography. Prerequisite: RADT 1010; Corequisite: RADT 1710

RADT 1030 Fundamentals Radiologic Technology II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides instruction in accessory equipment used to obtain the optimum image. Emphasis is on practical aspects of equipment capabilities, film/screen combinations, grids, beam restricting devices, and patient condition. Prerequisite: RADT 1020; Corequisite: RADT 1320, RADT 1520, RADT 1220, RADT 1920

RADT 1210 Radiologic Physics I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course presents a study of radiation physics and radioisotopes including the theoretical basis for understanding the nature, production and interaction of radiation with matter, atomic and electrical physics as it pertains to radiation production and control. Prerequisites: RADT 1020 and RADT 1710; Corequisites: RADT 1510, RADT 1310, and RADT 1910

RADT 1220 Radiologic Physics II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course presents a study of the physics of radiation production control and characteristics of basic imaging modalities including computer imaging and computer assisted image resolution and provides background for the understanding of radioactivity and its application in nuclear medicine and radiation therapy. Prerequisite: RADT 1210; Corequisites: RADT 1320, RADT 1520, and RADT 1920, RADT 2010

RADT 1230 Essentials of Radiobiology**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is a survey of natural and artificial radiation sources and their effects on cell tissue and organisms including basic criteria and methods of survey, patient and occupational dose analysis and control effects on environmental quality. It covers familiarity with control agencies and appropriate regulations, legal aspects of control, accidents and radiation incidents, and facility/area design. Prerequisite: RADT 1220; Corequisites: RADT 1530, RADT 2020, and RADT 2920.

RADT 1310 Radiographic Anatomy/Physiology I**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course presents a study of gross structure of the human body with radiographic anatomy including radiographs and demonstrations. Prerequisites: RADT 1710, RADT 1020; Corequisites: RADT 1510, RADT 1210, and RADT 1910.

RADT 1320 Radiographic Anatomy/Physiology II**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of RADT 1310 covering the cardiovascular system, the gastrointestinal system, nervous system, and genitourinary system. Prerequisite: RADT 1310; Corequisites: RADT 1520, RADT 1220, RADT 1920, and RADT 2010

RADT 1510 Radiographic Procedures I**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course provides an investigation of the procedures used in patient positioning and radiation safety instruction for radiographic demonstration of anatomical parts of the chest, abdominal upper extremity, pelvic girdle, lower extremity, and shoulder girdle; and includes topographical anatomy, patient and part positioning, equipment selection and use, and patient-film orientation of radiographic anatomy. Prerequisites: RADT 1710 and RADT 1020; Corequisites: RADT 1310, RADT 1210, RADT 1910

RADT 1520 Radiographic Procedures II**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course presents an investigation of procedures used in patient positioning and radiation safety instruction for radiographic demonstration of anatomic parts of the axial skeleton, bony thorax, gastrointestinal system and urinary system. Prerequisites: RADT 1220, RADT 1920, and RADT 2010

RADT 1530 Radiographic Procedures III**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course presents an investigation of procedures used in patient positioning and radiation safety for imaging procedures with special imaging equipment, CT, MRI, mammography exoradiography, including topographic anatomy, patient, and part positioning with related structure systems, equipment selection and usage. Prerequisite: RADT 1520; Corequisite: RADT 1230, RADT 2020, and RADT 1920

RADT 1710 Clinical Radiologic Lab**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course gives an overview of radiography and its role in health care delivery. Student responsibilities will be outlined as a part of orientation to the academic and clinical structure of the program. The student will also be introduced to ethics, legal responsibilities, and to the process of patient care. Prerequisite: RADT 1010; Corequisite: RADT 1020

RADT 1910 Radiologic Clinic I**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course is a practicum in routine diagnostic radiography in the art of radiographic positioning technique and development of professional responsibility and ethical practice and moral patient care. Prerequisites: RADT 1710 and RADT 1020; Corequisites: RADT 1310, RADT 1510, and RADT 1210

RADT 1920 Radiologic Clinic II**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a continuation of practicum in routine diagnostic radiography. Prerequisite: RADT 1910; Corequisites: RADT 1220, RADT 1320, and RADT 1520, and RADT 2010

RADT 1930 Radiologic Clinic III**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

Concentrated clinical practice in routine diagnostic radiography involving 35 hrs of clinic work per week (Summer I session). Prerequisite: RADT 1920

RADT 2020 Fundamentals of Radiologic Technology III**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of RADT 2010 with emphasis on radiographic image analysis including exposure factors, radiation dose, demonstrated anatomy and pathology, selection, and testing of film/screen combination with consideration for radiographic detail, contrast, density distortion. Prerequisite: RADT 2010; Corequisites: RADT 1530, RADT 1230, and RADT 2920

RADT 2030 Fundamentals of Radiologic Technology IV**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of RADT 2020 with a study of patient care from the aspects of economics and quality. It also presents an introduction to quality assurance including personnel staffing, work flow studies, patient education, in-service education, continuing education, and facility and equipment usage and emphasizes learning as a continuous process with self examination and proficiency testing. Prerequisite: RADT 2020; Corequisites: RADT 2110 and RADT 2930

RADT 2040 Fundamentals of Radiologic Technology V**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of RADT 2030 with an emphasis on application of theory and practice correlation in patient care and imaging. Prerequisite: RADT 2030 Fundamentals of Radiologic Technology IV

RADT 2110 Introduction To Pathology**2 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)**

This course provides a study of inflammatory disorders, disorders of vascular origin, degenerative changes, and pathology of infectious diseases. Attention is given to organic systematic disease, pathologic anatomy, disturbed physiology, correlated with clinical signs and symptoms and radiographic exposure techniques in pathologic conditions. Emphasis is on the principles of radiographic management for diagnosis, with an introduction to the several systems. Prerequisite: RADT 1530; Corequisites: RADT 2030, RADT 2930

RADT 2910 Radiologic Clinic IV**4 Credit Hour(s) 4 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of RADT 1930. As the first course or the second year of study, the student assumes a more responsible role of the radiologic technologist. 35 hrs of clinic work per week (Summer II session). Prerequisite: RADT 1930

RADT 2920 Radiologic Clinic V**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is a continuation of RADT 2910, including increased proficiency in routine diagnostic radiologic procedures. New competencies required include the cranium, and new specialized diagnostic procedures. Additional work under indirect supervision in general radiography is required. Prerequisite: RADT 2910, Corequisites: RADT 1530, RADT 1230, and RADT 2020

RADT 2930 Radiologic Clinic VI**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course requires an observation of and participation in all aspects of diagnostic radiology, including advanced imaging modalities of MRI, CT, sonography, radiation oncology, nuclear medicine, and angiography. Final competencies in general radiography are required. Prerequisite: RADT 2920, Corequisites: RADT 2110 and RADT 2030

SOCIOLOGY**SOCI 1010 Introduction to Sociology****T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course introduces students to the field of sociology – its concepts, methods, theories and theorists. The sociological perspective is used in examining social interaction, social structures and social change. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

SOCI 1020 Social Problems**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

A critical reasoning approach is used in examining social problems and issues from the micro-social and global perspectives. Primary emphasis is placed on understanding the "social construction" of social problems—their magnitude, severity, causes, consequences and possible solutions. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

SOCI 2010 Family in Global Perspective**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course focuses on the family as a global social institution and its responses to modernization, industrialization, and urbanization. Perspectives are presented from a sociological, anthropological and ecological frame of reference. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

SOCI 2020 Marriage and the Family**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

The study of the family as a social institution primarily emphasizes relationships among the family, society and individual members, and cultural variations based on class differences, ethnicity, and religion. The course also explores the family's adaptation to changing societal forces and problems confronting contemporary family life. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

SOCI 2030 Race, Class and Gender**T****3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

Using a socio-historical perspective and a critical reasoning approach, the consequences associated with race, class and gender inequalities in American social institutions are examined. Attention will be given to the impact of more recent demographic shifts in the cultural characteristics of society and to the global nature, of race, class and gender issues. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

SOCI 2040 Sociology of the Black Family and Community**3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)**

This course is an analysis of the sociological complexities of education, religion, government, law enforcement, housing, and industry in the black family. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

SOCIAL SERVICES

SOCS 1020 Human Behavior in the Social Environment

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of human motivation and the impact of the social environment on human behavior as well as the development of the socialization skills and coping mechanisms necessary for effectively functioning in social contexts.

SOCS 2010 Social Services for Children and Youth

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is designed to provide general knowledge of the social services of children and youth, the child welfare and adolescent social systems established to provide services to assist children, youth and families to resolve their social problems and utilize needed resources. This course increases the student's understanding of children, the adolescent peer group, their familial relationship, roles and their emotional and physical development.

SOCS 2020 Theories and Methods of Social Service Practice

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course examines the theories, methods and skills of professional practice including adversarial, conciliatory, developmental and restorative processes. Emphasis is on the team approach to and techniques of casework with individuals and groups. Prerequisite: SWRK 1010

SOCS 2080 Social Services Field Practicum

5 Credit Hour(s) 2 Lecture Hour(s) 0 Lab Hour(s)

This course is designed to be the direct professional experience in the AAS Social Services degree program. Students will complete a total of 150 clock hours of service at a social services agency approved by the department under the supervision of both an on-site mentor and a college practicum supervisor. The intern is expected to participate in the daily routine of the assigned social services agency and will identify, investigate, propose and implement selected individual assignments. The internship hours will include selected outside observations and on-campus classroom instruction. Prerequisites: SWRK 1010, SOCS 1020, SOCS 2020, SOCS 2045 and HSER 1510 or permission of Instructor.

SOCS 2045 Family Systems

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an examination of the interpersonal interaction patterns existing in families in contemporary American society. Special emphasis is given to examining emotional and physical abuse, drug and alcohol addition, alternative life styles and changing gender roles.

SPANISH

SPAN 1000 Spanish/Spec Purpose

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an elementary conversational Spanish course designed for people who need to communicate with Spanish speakers. Each individual section of the course is customized to meet the needs of a particular audience (health-care workers, criminal justice personnel, landscapers, bankers).

SPAN 1010 Elementary Spanish I

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course introduces the student to basic Spanish-language skills in reading, writing, listening, and speaking. Parts of speech and conjugation of present and past tenses are included. Students also study the culture of both Spain and Hispanic American countries. Prerequisite: DSPW 0800 and DSPR 0800 or equivalent

SPAN 1020 Elementary Spanish II

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Reading, writing, listening, and speaking skills in Spanish are further developed in this course. The cultures of Spain and Hispanic American countries are strongly stressed. Prerequisite: SPAN 1020 or equivalent

SPAN 1090 Review of Spanish Grammar

1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)

This review of the basic elements of Spanish grammar is designed for students who have not had recent Spanish language studies. The uses of nouns, adjectives, and articles are included, as are the present, imperfect, preterite, conditional, and future verb tenses in the indicative. Formation and uses of the present subjunctive are the final component. Prerequisite: Two semesters of college Spanish or two years of high school Spanish

SPAN 2010 Intermediate Spanish I

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course continues to develop Spanish-language competency levels in reading, writing, listening, and speaking. Through reading and lectures students develop a greater knowledge of the history and cultures of Spain and Hispanic American countries. Prerequisites: SPAN 1010 or equivalent

SPAN 2020 Intermediate Spanish II

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course continues to develop Spanish language competency. It engages students in using languages as a whole, regardless of the particular skill involved, so that students read, write, speak, and hear Spanish more often than they work on specific vocabulary or grammatical items. Emphasis is also given to cultural studies of Spain and Hispanic American countries. Prerequisite: SPAN 2010 or equivalent

SPAN 2030 Business Writing in Spanish

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This intermediate-level course is designed to introduce students to the vocabulary, document format, and cultural elements relating to business correspondence and communication. Though writing skills are emphasized, reading and speaking are also crucial components. This course may be used as a general elective. Prerequisite: ENGL 1010 or equivalent; SPAN 1020 or equivalent

SPEECH

SPCH 1110 Public Speaking

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is the study of ethical and effective public speaking with practice on constructing and delivering various types of speeches. Major focus will be placed on informative and persuasive speaking. This course fulfills the oral communication requirements for the general Education Core. Prerequisites: DSPW 0800 and DSPR 0800

SPCH 1310 Black Communication

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is a study of the speeches and rhetoric of the Black American. Emphasis is on major black speakers in America. Prerequisites: DSPW 0800 and DSPR 0800

SPCH 1620 Voice and Articulation

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

Voice and Articulation is a 3 hour course designed to assist students in the development of effective speaking skills. The focus of the course will be on the improvement of pronunciation, voice, and articulation. Emphasis will be placed on the study of the International Phonetic Alphabet and oral presentations.

SPCH 2010 Oral Communication

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course provides an introduction to the principles of oral communication, with particular emphasis on public speaking, group discussion, and mass media. Prerequisites: DSPW 0800 and DSPR 0800

SPCH 2610 Basic Oral Interpretation

T

3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course is an introduction to the oral performance of literature. The focus of the course is on the development of oral communication skills through the dramatic performance of prose and poetry.

SPCH 2620 Intermediate Oral Interpretation T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
Continuation of Basic Oral Interpretation with emphasis on the sense of rhythm, style and technique necessary for speaking poetry, prose, and dramatic literature. Prerequisite: SPCH 2610

SPECIAL EDUCATION

SPED 1100 Quality Individual Support Plans
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
Students will learn how to develop and implement the Individual Support Plan (ISP) using transdisciplinary teaming techniques. Emphasis will also be placed on developing plans that have measurable outcomes and best meet the work, recreation and leisure, and functional life skills needs of individuals with disabilities.

SPED 1200 Supports for Community Living
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This is an introduction to the history of treatment and services offered to persons with disabilities. Also included is an overview of current and best practices involved in providing medical, physical, behavioral, communication, and social-emotional supports to this population.

SPED 1300 Quality of Life Issues
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
In this course, students will learn the knowledge and skills necessary to facilitate quality of life improvements through meaningful community participation and supported employment for adults with developmental disabilities.

SPED 1400 Basic Home Management
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
In this course, students will learn the philosophy and practical applications of client-centered, community-based services associated with supported living arrangements for persons with disabilities. Interpersonal and home management skills will be stressed.

SPED 1540 Home Manager Internship
3 Credit Hour(s) 0 Lecture Hour(s) 0 Lab Hour(s)
This course is designed to be the direct professional experience in the Technical Certificate, Home Manager Program. Students will complete 135 actual hours under the supervision of a mentor already working as a Home Manager. The intern will participate in the daily routine of a supported living arrangement and will identify, investigate, propose and implement a remedy for a real management problem in a community living home. The internship will include outside observations and ten hours of classroom instruction.

SOCIAL SCIENCES

SSCI 2990 Special Topics in Social Science
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course takes an interdisciplinary approach to the study of particular problems and issues within the social and behavioral sciences area.

SOCIAL WORK

SWRK 1010 Introduction to Social Work T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course provides students with an overview of the social work profession, including its historical and philosophical developments; ethical and theoretical bases; fields of practice; settings and methods; its relationship to the social welfare system(s); and as a foundation for generalist practice. Students will volunteer 30 hours in a social agency setting.

SWRK 1020 Overview of Psychological/Sociological Conditions T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course provides an overview of conditions that may confront persons who supervise services to individuals with special psychological and social needs. Various methods for providing services to the identified clientele are discussed. Emphasis will be placed on issues that impede optimal development during the life span. Prerequisites: DSPW 0800, DSPR 0800 or equivalent

SWRK 1030 Caregiver Administration Internship T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This internship allows the student to participate in the caregiver environment. The student is exposed to the daily responsibilities and experiences associated with caregiver administration, and is given the opportunity to apply educational training to actual work situations as they relate to clients. Prerequisites: DSPW 0800, DSPR 0800 or equivalent; Corequisite: ACCT 1003, or permission of the instructor

THEATER

THEA 1030 Theater Appreciation T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is designed to develop an understanding and critical appreciation of live theater. Through reading and analyzing important plays, viewing filmed dramas, and attending and evaluating theatrical productions, students will be introduced to performance and technical components of theater and develop an understanding of theater's designation as a "collaborative art." Prerequisites: DSPW 0800 and DSPR 0800

THEA 1310 Theater Crafts I T
3 Credit Hour(s) 1 Lecture Hour(s) 3 Lab Hour(s)
This course covers theater and job hierarchies with emphasis on stage manager duties and includes hands-on approach to converting basic drawings to full realized scenery elements using tools and fasteners as well as painting techniques; reading light plots; and hanging, focusing, and getting instruments.

THEA 1320 Theater Crafts II T
3 Credit Hour(s) 1 Lecture Hour(s) 3 Lab Hour(s)
This course covers problem-solving in applying design ideas to unusual spaces and implementing design ideas on restricted budgets, with emphasis on designing sets, lights, and costumes. It includes script analysis and development of stage terminology. Prerequisite: THEA 1310

THEA 1510 Basic Acting T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course contains instruction in basic body and voice control techniques and exploration of actor's resources and class exercises to develop relaxation, concentration, imagination, and improvisation skills.

THEA 1520 Intermediate Acting T
3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)
This course is a continuation of basic body and voice control techniques with introduction to role analysis, characterization development and scene interpretation. Prerequisite: THEA 1510 or permission of instructor

THEA 1910 Production Laboratory
1 Credit Hour(s) 1 Lecture Hour(s) 0 Lab Hour(s)
This course is an introduction to the technical demands of the theater through day-to-day operations. Student may select work hours to fit their schedule and may select an area of particular interest if possible.

T – Denotes courses designed for transfer to four-year institutions

Students should check course recommendations with the college or university to which they intend to transfer for a baccalaureate degree. The receiving institution always makes the final decision about transferability of credits.

TELECOMMUNICATION ENGINEERING TECHNOLOGY

TLET 1010 Electronic Circuits I and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course explores the function and utilization of today's electronic circuits. These are designed and tested using diodes, transistors, and integrated circuits for applications in op-amps, photosensitive devices, integrators, differentiators, etc. Both digital and analog situations are examined along with applications for all electronic areas. Devices selected for investigation are used in later courses where they are presented in greater depth. Prerequisite: DSPM 0850 and approval of program coordinator.

TLET 1901-1908 Technical Scholarship Program I - VIII 4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

Students work part-time at their sponsoring companies training in areas related to their majors. Supervisors at the companies plan the work schedules to coincide with class schedules when possible. Prerequisite: Permission of the dean and department chair; may take as many as eight courses

TLET 1931-1933 Co-operative Education Work Experience I - III

3 Credit Hour(s) 0 Lecture Hour(s) 225 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

TLET 1941-1943 Cooperative Education Work Experience IA - IIIA

4 Credit Hour(s) 0 Lecture Hour(s) 300 Lab Hour(s)

From this experience the student participates in the employer/employee relationship. By being an integral part of the work atmosphere, the student encounters the true meaning of work, the physical and security needs it provides, plus the impact it has on today's society.

TLET 2020 Electronic Circuits II and Lab 4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course involves the theory and mathematics of the circuits presented in Electronic Circuits I. The realities of using 20 percent components and even wider variations in discrete active elements are presented as problems to be solved by the student, using the proper combination of mathematics, test equipment, and cut and try. Solutions of assigned problems by the use of the computer are required. Prerequisite: TLET 1010

TLET 2144 Telecommunications and UHF and Lab 4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course is a continuation in electronic communications but emphasizes data communications, telephony, and microwave transmission. Current techniques used for high efficiency transmission of analog and digital signals are studied. Also covered are digital data techniques, transmission paths, radio link systems, earth station criteria, facsimile communications, and fiber optic transmission links. A field trip to a local communications facility is made. A fiber optics transmitter/receiver is constructed and tested by the student in the laboratory. Problems requiring a computer solution are assigned as part of laboratory projects. Prerequisite: TLET 2214

TLET 2214 Electromagnetic Radiation and Reception and Lab

4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course covers communication systems using electromagnetic radiation in broadcast and point-to-point terminals. The ability of the system to transfer information from one point to another is studied in the presence of noise, which adversely affects the transmission and reception of radio frequency signals. Amplitude modulation (AM), single sideband (SSB), and frequency modulation (FM) are studied and comparisons are made as to the advantages and disadvantages of each system. The student writes computer programs that relate to

topics covered in both the classroom and in the laboratory. The student also constructs and tests a complete AM transmitter and receiver system, using integrated circuits. Television systems are discussed and analyzed. Prerequisites: ELET 1120, TLET 1010

TLET 2233 Electrical/Electronic CAD Drawing and Lab 3 Credit Hour(s) 2 Lecture Hour(s) 3 Lab Hour(s)

This course introduces the student to the use of the computer for making electronic drawings. The primary goal of this course is to familiarize the student with the menus and commands of a computer-aided-drafting system. Skills will be developed to enable the student to manipulate lines, symbols, and text on the computer screen to produce an acceptable drawing before it is plotted. Block, logic, schematic, and printed circuit drawings will be covered in this course. Prerequisite: CPET 1104 and either ENTC 1114 or ELET 1110.

TLET 2244 Telecommunications Design and Lab 4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course provides for the application of theory covered in previous courses. The student is assigned projects having certain prescribed standards of operation. His or her responsibility is to use all knowledge gained to design, build, and test the circuitry to verify that it has met the prescribed standards. Topics typically covered in the course include active filters and frequency shaping networks, time domain multiplexing and frequency division multiplexing, D-A/A-D conversion, Norton amplifiers and transconductance amplifiers. This course also includes a minimum of three written reports with one formal engineering report. Prerequisites: CPET 1124, TLET 2020

TLET 2344 Telecommunications and Lab 4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course is an overview of the telecommunication area and emphasizes data communications, telephony, and microwave transmission. Current techniques used for high efficiency transmission of analog and transmission paths, radio link systems, earth station criteria, and facsimile communications facility are studied. A fiber optics transmitter/receiver is constructed and tested by the student in the laboratory. Prerequisites: TLET 1010

TLET 2444 Special Topics 4 Credit Hour(s) 3 Lecture Hour(s) 2 Lab Hour(s)

This course permits coverage of material not contained in other courses. Primary emphasis is placed on the application of current devices and trends in the electronic communication field. Prerequisite: TLET 1010

TELEVISION PRODUCTION

TVPR 1710 TV Production I 3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This course provides hands-on instruction in basic television production. Exposure to color and black/white television production equipment with emphasis on production principles, terminology, and vocations are included.

TVPR 1720TV Production II 3 Credit Hour(s) 3 Lecture Hour(s) 0 Lab Hour(s)

This is a study of "on-the-air" production theory and practice with additional voice training and control. Emphasis is placed on production differences among mass media, film, and live theater. Prerequisite: TVPR 1710