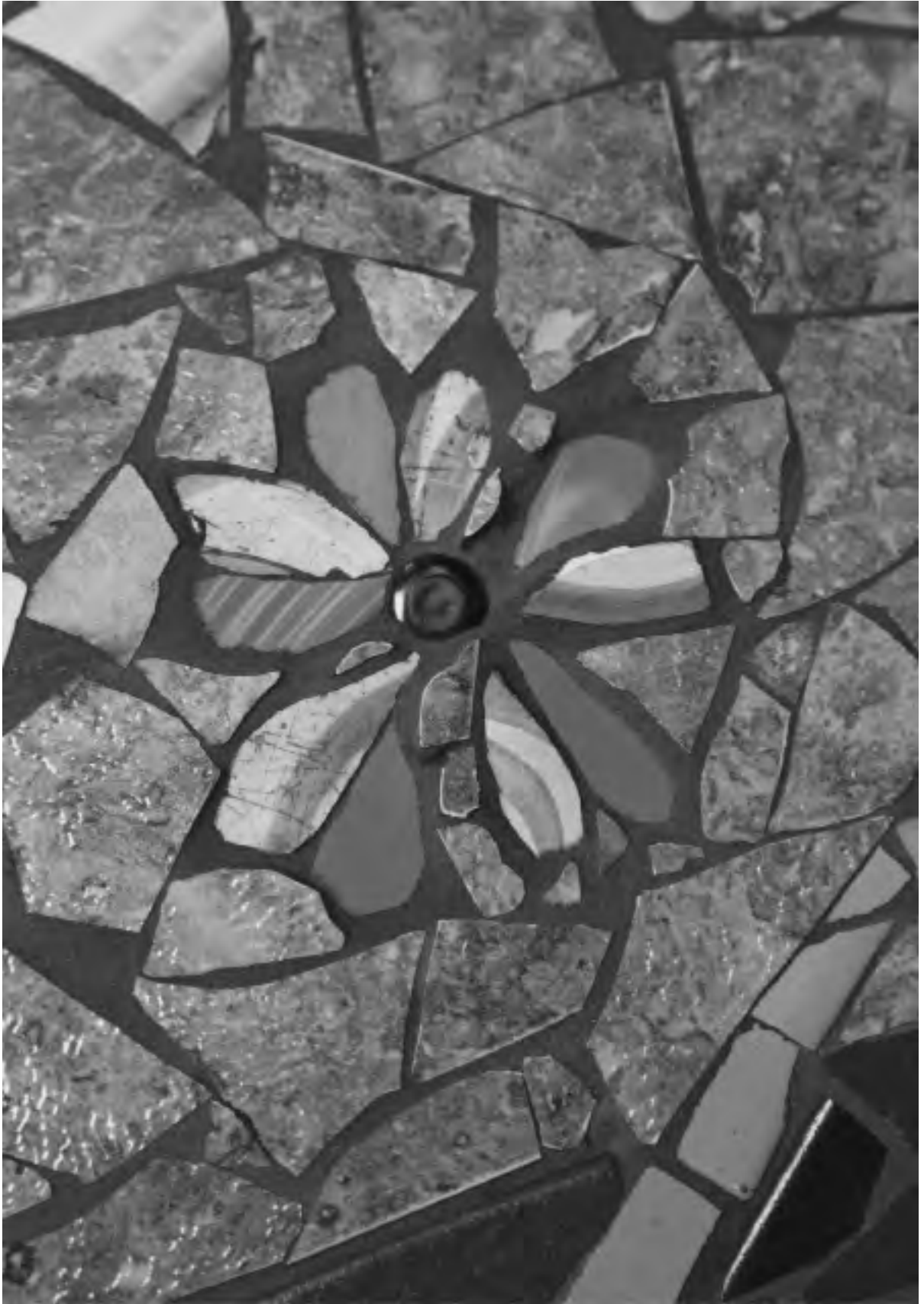


Course Descriptions



Course Descriptions

All courses are assigned a course code title in the College data processing system. The first four characters indicate the area of study and the last four indicate the specific course, e.g. ACCT 1104 (Accounting 1104).

Course offerings will be published on the College's website prior to registration each semester. The College reserves the right to cancel a course due to low enrollment.

Prerequisite: A class which students must successfully complete before enrolling in the class that requires the prerequisite.

Corequisite: A class which students must take during the same semester as the class which requires the corequisite, unless they have already successfully completed the corequisite.

Courses that do not count toward graduation shall be identified in the College Catalog as carrying "institutional credit." This type of credit will not count in the student's cumulative grade point average, but will be used in the calculation of full-time status and calculation for grants and other financial aid formulas.

ACCOUNTING - ACCT

ACCT 1101 Principles of Financial Accounting 3 credits

An introduction to the principles and practices of accounting. Emphasis is placed on the fundamentals of recording, adjusting, analyzing, and reporting financial information in accordance with Generally Accepted Accounting Principles. Includes the study of the accounting for cash, accounts receivable, inventory, fixed assets, accounts payable, liabilities, revenues and expenses.

ACCT 1102 Principles of Managerial Accounting 3 credits

Prerequisite: ACCT 1101 or ACCT 1104
An introduction to the use of accounting data in managerial decision making with an emphasis on the capital structure of corporations, financial statement analysis and managerial accounting techniques. Content includes corporate organization, accounting for equity transactions, long-term obligations and investments, ratio analysis of financial statements, cost measurement systems, cost-volume-profit analysis, and budgeting.

ACCT 1104 – Principles of Accounting I 4 credits

An introduction to fundamental financial and computerized accounting concepts, principles and procedures as they relate to recording transactions, adjusting

accounts, preparing financial statements, closing and service concerns, accounting for cash, notes, accounts receivable, inventory, merchandising, fixed assets, accounts payable, liabilities and payroll.

ACCT 1105 – Principles of Accounting II 4 credits

Prerequisite: ACCT 1104

This course is a continuation of the introduction to fundamental accounting principles and procedures. Mastery of various costing methods and the organization and operation of corporations are covered. The course also includes an introduction to analyzing and comparing financial statements, departmental and responsibility accounting, manufacturing accounting, cost accounting, job order and tax considerations in business decisions.

ACCT 2201 Intermediate Accounting I 3 credits

Prerequisites: ACCT 1102 or ACCT 1105

Intermediate Accounting I provides an in-depth study of the conceptual framework of accounting as it relates to recording, reporting, and disclosing financial information on the Balance Sheet, Income Statement and Cash Flow Statement. Emphasis is placed on the accounting procedures for measuring, recording, and reporting Assets. Recent developments in accounting standards are practice are also covered.

ACCT 2202 Intermediate Accounting II 3 credits

Prerequisites: ACCT 1102 or ACCT 1105

A continuation of the in-depth study of financial accounting with a concentration on the liabilities and stockholder's equity accounts of the Balance Sheet. Other topics include financial statement analysis, error analysis, and accounting for income taxes, retirement benefits, and leases.

ACCT 2206 Managerial Cost Accounting 3 credits

Prerequisite: ACCT 1102 or ACCT 1105

The course is a cost and managerial accounting course geared to the concepts of management, fundamental cost reports, order and process costing, by-products and joint product costing, planning and control of factory overhead, and the nature of alternative choice problems, capital investment decisions and methods used in compiling and analyzing data used in the decision making process.

ACCT 2209 Not-for-Profit Accounting 3 credits

Prerequisite: ACCT 1105

This course introduces the operating philosophy of non profit enterprises as it relates to the accounting practices of those organizations. It will develop the not for profit philosophy by working specifically with the following funds: General, Special Revenue, Capital Project, Debt Service, Inter governmental, Trust and Agency, Special Assessment, and Enterprise.

ACCT 2210 Tax Accounting 3 credits

This is an introductory course in personal tax accounting. Emphasis is focused on the principles of federal income taxation as they relate to individuals and simple trusts, including the laws, rulings, and regulations that govern the preparation of individual tax returns.

ACCT 2221 Auditing 3 credits**Prerequisite: ACCT 1102 or ACCT 1105**

This course will provide a sweeping overview of auditing. Special attention will be given to the nature and economic purpose of audits, auditing standards, professional ethics, auditor's legal liability, the study and evaluation of internal control, the nature of audit evidence, forensic auditing and auditing technique.

ACCT 2230 Computerized Accounting - QuickBooks 3 credits

A hands-on study of the market leading small business accounting software, QuickBooks. Emphasis is placed on using QuickBooks to record transactions and report financial information for both new and existing businesses. Students will also learn how to use QuickBooks to analyze the performance of a small business. At the conclusion of the course, students will have an opportunity to earn QuickBooks User Certification by passing a standardized QuickBooks exam.

ACCT 2299 Seminar 1-6 credits

This course will be a discussion of particular problems related to the student's chosen program and areas of interest.

AGRICULTURE - AGRI**AGRI 1101 Agricultural Economics** 3 credits

An introduction to the field of agricultural economics as it relates to production, consumption, marketing, prices, supply and demand, records, and finance.

AGRI 1106 Principles of Crop Science 4 credits

General principles of field crop production. Factors such as environmental concerns, economic constraints, weather, soils, soil fertility, varietal differences, cultural practices, and pests will be discussed. Course will also cover basic tillage practices, basic crop breeding and development, and harvest techniques of popular field crops. Specific crops include corn, soybeans, wheat, and other crops that have potential in the Midwest.

AGRI 1107 Principles of Animal Science 4 credits

Selection, breeding, feeding, management, and marketing of beef, sheep, swine, equine, and poultry. Emphasis placed on livestock systems and current production technologies. Course also covers principles of livestock breeding/genetics, reproduction, and feed management.

AGRI 1114 Principles of Horticulture 4 credits

The student will learn the culture of many horticultural plants. Turf management, floriculture, greenhouse management and landscaping are included in this study. Also includes cultural practices, basics of greenhouse management, gardening practices, basic tools of the industry, harvest and sale of selected plants.

AGRI 1115 Floral Design 4 credits**Prerequisite: AGRI 1114**

This course familiarizes students with basic design principles as well as the tools, equipment, and plant materials commonly used in floral work. Students will construct elementary arrangements such as round, triangular, oblong, and asymmetrical table pieces, as well as corsages and boutonnières. Time will also be spent on more complex pieces such as wedding bouquets, large table pieces, contemporary designs, and specialty items.

AGRI 1119 Greenhouse Management 4 credits**Prerequisites: AGRI 1114**

This course introduces the student to greenhouses and related equipment used to manipulate the environment to best economical advantage in the production of greenhouse crops: flower, vegetable and foliage plants. Included are topics on greenhouse location and construction, heating, cooling, soils and fertility, lighting, crop scheduling, disease and insect control, and environmental considerations. Some attention is given to business and the retailing of crops grown.

AGRI 1121 Plant Propagation 4 credits**Prerequisite: AGRI 1114**

This course is designed to acquaint the student with the basic principles of plant propagation. Included will be instruction in the use of propagation material and equipment. Specific training will be provided in the laboratory for propagation by seeds, modified stems, and soft wood cuttings.

AGRI 1123 Plant Materials 4 credits**Prerequisite: AGRI 1114 or Corequisite AGRI 1114**

This course is designed to introduce the student to the identification, use and care of woody and herbaceous ornamental plants used in the landscape industry. Special focus will be placed on identification of species and appropriate uses for each.

AGRI 1126 Livestock Feeds & Feeding 3 credits**Prerequisite: AGRI 1107**

A study of fundamental principles of feeds and feed use in farm livestock to meet nutritional and dietary requirements of farm animals. Digestive physiology will be introduced. This course includes study of specific nutrients and feedstuffs as related to domestic farm livestock. Feedstuffs will be studied in relation

to value added to a ration. Ration formulation will be introduced.

AGRI 1129 Vegetable Production 3 credits

General principles and practices of vegetable production are covered. This course will include principles of garden planning, propagation, transplanting, fertilization, pest control, weed management, harvesting and storage. The course also includes a brief overview of produce marketing and organic production practices.

AGRI 1145 Livestock Health 3 credits

The study of diseases, treatment, and prevention of diseases in farm animals. This course will focus on cattle, swine, sheep, horses, and poultry.

AGRI 1151 Agricultural Finance & Credit 2 credits

The analysis of farm money programs. Where, how, and when of agricultural credit. Topics will address the special nature of farm lending in regards to crop and animal production. Will include some discussion of the effects of climate, product marketing and national policy on crop production and funding.

AGRI 1171 Survey of Agriculture 1 credit

A survey of the current topics in the fields of agricultural production, research and product development.

AGRI 1173 Principles of Agricultural Marketing 4 credits

The study of marketing as it relates to agriculture and its products, as well as a study of the Futures Market as it relates to the marketing of agricultural products.

AGRI 1199 Seminar 1–6 credits

Discussion of particular issues in areas of special interest. May include topics in areas of animal science, crop production, Ag. business or horticulture.

AGRI 2200 Agricultural Field Experience 1–9 credits
(Field Experience)

Prerequisite: sophomore standing
Agricultural field experience is a paid (or unpaid) work activity which relates to an individual student's occupational (or learning) objectives, and which can be taken in lieu of elective courses in the student's program. The experience will be coordinated by an agricultural faculty member who will assist the student in planning the experience, visit the site of the experience for a conference with the student and their supervisor at least once during the semester, and assign the course grade to the student after appropriate consultation with the employer/supervisor.

AGRI 2207 Forages 3 credits

A study of forage crops, integrated harvesting systems, and forage land management for agricultural

production. Includes forage identification, establishment and maintenance, measurement and forage productivity evaluation. A brief presentation of grazing systems and animal-plant interactions will be included.

AGRI 2208 Soils 4 credits

An introduction to the physical, chemical and biological properties of soils and how these properties relate to soil use and productivity.

AGRI 2217 Landscape Maintenance 4 credits

Prerequisites: AGRI 1114

This course explains, through lecture and laboratory exercises, the cultural considerations and manipulations necessary to successfully establish and maintain vigorous, attractive landscape plantings. Topics include transplanting, pest control, fertility, pruning, and environmental disorders.

AGRI 2218 Landscape Design 3 credits

Prerequisite: AGRI 1114

This course familiarizes students with basic design principles, site analysis, needs assessment, drawing and lettering techniques, as well as tools and equipment used in design work. Students learn the design process through individual residential design projects.

AGRI 2228 Soil Fertility & Fertilizers 3 credits

Prerequisite: AGRI 2208

The course will cover the basics of plant nutrient requirements and the ability of soils to supply those nutrients. Specifics of agricultural fertilizers, lime, soil amendments, and soil and plant analysis will be included in class discussions.

AGRI 2232 Weed Control & Management 4 credits

An introduction to the biology and control of weeds in agronomic, horticultural and turf grass situations. Discussions of weed history and weed morphology are included. Weed identification is also an important component of this course.

AGRI 2238 Pesticides & Pesticide Usage 3 credits

Various aspects of pesticide chemistry and use will be explored. Topics include the overall importance and use patterns of pesticides, classification of mode of action of pesticide active ingredients, application techniques, equipment, and calculations, and alternatives to pesticide usage. Environmental impact and historical use of pesticides will also be addressed.

AGRI 2239 Field Research Techniques 3 credits

Prerequisite: sophomore standing

This course will cover the basics of field research in agriculture (including plants and animals) and the fundamentals of experimental design and

interpretation of data. Both manual and computer analysis of data will be presented. Embedded in the course will be a selected research project from design to implementation to data analysis and final report writing.

AGRI 2240 Beef Cattle Management 3 credits
Prerequisite: AGRI 1107

This course will cover the basic scientific principles of nutrition, genetics, physiology, and marketing in the production of beef cattle.

AGRI 2241 Equine Science 3 credits
Prerequisite: AGRI 1107

This course will introduce students to the scientific study of horses in order to provide a better understanding of equine reproduction, nutrition, health and general management. The course is held in a traditional classroom setting with some laboratory and field trip opportunities which will enable the students to apply their knowledge to real world experiences (students will sometimes be outside and around horses, so appropriate dress and footwear will be required).

AGRI 2242 Swine Management 3 credits
Prerequisite: AGRI 1107

This course will cover the basic scientific principles of nutrition, genetics, physiology, and marketing in the production of swine.

AGRI 2247 Applied Entomology 3 credits

An overview to the structure, physiology, classification and control of economically important insects. This course will focus on the specific insects that interfere with agricultural production, including row crops, vegetables, forages, horticultural plants, and livestock.

AGRI 2262 Agricultural Machinery & Maintenance 3 credits

This course will provide the student with the basic fundamentals of operation, maintenance, and repair of modern farm equipment and machinery. Students will learn preventive measures to decrease fuel waste, downtime, and improve operating efficiency.

AGRI 2299 Research Project 3 credits
Prerequisite: Completion of core courses in Agriculture Production program

A supervised research project tailored to the individual needs and learning objectives of the student.

ALLIED HEALTH - ALTH

ALTH 1101 Introduction to Allied Health 2 credits
Prerequisite: Acceptance into Allied Health Prog,
Corequisite: MAST 1115

Introductory level course that includes the basic

information all health care workers need to work in any department of the health care environment. It will include an orientation to the health care delivery system including history and definition. This course will cover different allied health care occupations and the multi-disciplinary skills needed for success in the health care environment. This course will also include orientation into OSHA measures and guidelines, infection control, and measurement of vital signs.

ALTH 1121 Introduction to Pharmacy Technician 2 credits

Prerequisite: Acceptance into Pharmacy Technician program

This is an introductory course designed to introduce students to the scope of pharmacy practice including the history of medicine, ethical and legal aspects of drug dispensing, the role of pharmacy technicians, pharmacy terminology and dosage calculations.

ALTH 1122 Pharmacy Technician II 3 credits
Prerequisites: ALTH 1121

Corequisite: ALTH 1125

This course continues emphasis on the foundation material needed for the scope of pharmacy practice including drug testing and the approval process, pharmacokinetics, and issues related to drug actions and responses. This foundation information is then further applied to the treatment of specific diseases and conditions. Theory and technique required by the pharmacy technician to perform skills in an intermediate and advanced level. Procedure skills required in hospital and retail pharmacy are discussed with the management of pharmacy operations. These skills include financial management, health insurance and computer applications in drug-use control. Emphasis will be placed on safety within the workplace including handling of infectious and hazardous waste. A review for the Pharmacy Technician certification will be included.

ALTH 1125 Pharmacy Practicum 1 credit
Prerequisite: ALTH 1121

Corequisite: ALTH 1122

The Pharmacy Program is a period of directed practice, which consists of practical pharmacy technician skills in a pharmacy facility. The students would use the skills, and theory behind the skills, to perform and/or observe in a pharmacy setting.

ALTH 1130 Pharmacology for Allied Health 2 credits

Prerequisite: Acceptance into Health Science Program

Describes the scope of pharmacology as it relates to Health Science Professions. Instruction introduces the student to drug therapy and pathophysiologic conditions, patient education regarding medications and

researching drugs in a drug reference. Course content includes the use, action, side effects, contraindication, and routes of administration most commonly administered in the medical office. Knowledge and experience is gained through researching of drugs, both generic and trade name, and recording the information on pharmacology index cards. Students are also required to complete worksheets to record medications administered, dispensed, or prescribed during the practicum experience.

ALTH 1160 Electronic Health Records 2 credits

This course is designed to be an interactive, competency-based approach to learning electronic health records. The student will develop skills used in electronic health records through the introduction of theory as well as the application of medical electronic health records through the use of Medcin Software. It includes using the computer to: 1) navigate the medical health record 2) record various patient health information such as history and findings 3) Order diagnostic tests and writing prescriptions 4) use EHR software to understand E&M code 5) use ICD-9CM codes to justify billing and orders based on diagnosis 6) graph lab results 7) use EHR to improve patient care.

ALTH 1199 Seminar 1-6 credits

Discussion of particular problems related to chosen program and areas of interest.

ALTH 2201 Phlebotomy Technology 3 credits

Prerequisite: Acceptance into Phlebotomy Program

Corequisite: ALTH 2225

This course is designed to further enhance the student's knowledge of the clinical methods and the practice of phlebotomy. Course includes lecture, discussion, simulations, and practice in laboratory settings with emphasis on capillary blood specimens, venipuncture, pediatric, geriatric, arterial, intravenous and special collection procedures, specimen documentation, specimen handling, and transportation.

ALTH 2225 Phlebotomy Practicum 1 credit

Prerequisite: Acceptance into Phlebotomy Program

Corequisite: ALTH 2201

The Phlebotomist Practicum Program is a period of directed practice, which consists of practical phlebotomy in a CLIA regulated, accredited laboratory facility. The students would need to attain a minimum performance of 100 successful venipunctures, 25 successful skin punctures and orientation in a full service laboratory.

ALTH 2230 Medical Billing & Coding III and Capstone 2 credits

Prerequisite: Acceptance in Billing and Coding Specialist program

Corequisite: MAST 2219

This course continues emphasis on CPT and ICD-10 coding skills, office and insurance collection strategies and introduces hospital billing concepts. The course includes capstone review and credentialing exam preparation.

ALTH 2250 Advanced Medical Terminology & Transcription 2 credits

Prerequisites: MAST 1115 and MAST 2212

Corequisite: ALTH 2260

This course is designed for the student, in Allied Health Technology at the advanced level. Emphasis is placed on a system of word analysis by building and extending the medical vocabulary and expanding medical transcription skills of the advanced student. Learning activities, including medical transcribing utilizing the computer, will focus on medical reports and dictation that develops a workable knowledge of advanced medical terminology and medical transcription.

ALTH 2260 Capstone Medical Transcription 2 credits

Prerequisites: MAST 1115 and MAST 2212

Corequisite: ALTH 2250

This course is an advanced, final semester course in the Medical Transcription certificate program. This course includes preparation for certification examination and a comprehensive review of the medical transcription curriculum. This review emphasizes accuracy, correct techniques for formatting, producing and using appropriate medical documents, and speed for timely completion of medical documents. Medical specialty dictation, recorded in various ethnic accents and from actual medical cases incorporating real-life situations (i.e., background noise and other) will be utilized to simulate dictation situations where critical-thinking must be used in decision making activities for accurate, in-depth proofreading and editing of patient medical documentation. Students will be required to participate in a mock certification examination at the end of this course.

AVIATION TECHNOLOGY- AVIT

AVIT 1111 Aircraft Operations and Preservation 5 credits

In this course the student will learn the proper way to move, receive and launch aircraft which will include taxiing, towing, tugging and marshaling. The student will learn how to service, fuel, oil and various other serviceable items. The student will also learn how to jack aircraft and how to perform weight and balance

calculations. This course covers aircraft corrosion and corrosive materials identification and how to protect, clean and preserve aircraft.

AVIT 1112 Basic Aircraft Electricity 5 credits

In this course the student will learn the basis of electron flow. The student will study the relationship between voltage, current and resistance. The student will use the understanding of Ohm's Law and Kirchoff's Law relating to voltage, current and resistance to solve series, parallel and complex electrical circuits. The student will be introduced to battery theory, including lead acid and nickel-cadmium and their use in aircraft. This course will cover direct and alternating currents, wiring, switches, control devices, wiring diagrams, generators, alternators, and motors used on aircraft.

AVIT 1113 Aircraft Materials, Processes & Fluid Lines 5 credits

This course will introduce the student to the hardware used to build aircraft. The student will use basic hand tools and measuring devices to fabricate rigid and flexible fluid lines. The student will identify appropriate uses for industry standard nondestructive testing including dye penetrant, eddy current, ultrasonic and magnetic particle inspection.

AVIT 1121 Aircraft Maintenance Publications & Regulations 3 credits

This course will introduce the student to aircraft publications and regulations. The student will become familiar with the use of the aircraft manufacture maintenance and structural repair manuals and illustrated parts catalog. The student will learn basic drawing skills and will learn to read blue prints and wire schematics required to complete aircraft maintenance. The student will investigate the Federal Aviation regulations, Airworthiness Directives and Advisory materials related to aircraft maintenance and paperwork required by the FAA.

AVIT 2221 Aircraft Metallic Structures 6 credits

This course will introduce the student to aircraft structures and structural repair. The student will become familiar with the materials used in all aspects of aircraft construction. This course is a hands-on course in which the student will learn to identify different aircraft materials and their uses. Students will fabricate aircraft structures using aluminum by forming, bending, installing, and removing aircraft hardware and fasteners. Students will also investigate welding and inspect welded aircraft structures including soldering, brazing, gas and arc-welding.

AVIT 2222 Aircraft Fuel Systems 2 credits

This course will introduce the student to aircraft fuels and fuel systems. The student will identify different

aircraft fuels, tanks and types of fuel systems used in aircraft. The student will remove, inspect, and install aircraft rigid and bladder type cell tanks. Students will learn the effects that atmospheric conditions have on fuel and how aircraft fuel systems manage these effects.

AVIT 2231 Aircraft Non-Metallic Structures 5 credits

This course will introduce the student to aircraft fabrics, woods, composites, acrylics, and painting. The students will perform hands-on wet-layup and vacuum bagging on composite structures used in aircraft. Students will inspect, test, fabricate, and repair fiberglass, bonded honeycomb, and fabric panels. Students will learn how to apply paint, trim and letters to aircraft finishes.

AVIT 2232 Airframe Electrical Systems 5 credits

This course will introduce the student to the components and techniques used in aircraft airframe wiring. The students will learn basic aircraft wiring and installation of wiring components. Students will investigate and understand how to determine wire size, wire load, circuit components, methods of wiring aircraft for 12 volt DC, 24 volt DC and 115 volt AC systems. Students will crimp, splice, and solder using the methods developed for aircraft to inspect, repair, and fabricate aircraft wiring systems.

AVIT 2233 Aircraft Landing Gear & Fluid Power 5 credits

This course will introduce the student to hydraulic, pneumatic, and landing gear system used in a variety of different types of aircraft. Students will inspect, check, service, and repair aircraft landing gear systems and their component. Student will remove, disassemble, inspect, and replace hydraulic and pneumatic systems components used in different aircraft systems.

AVIT 2241 Aircraft Instrumentation, Navigation, & Communication 4 credits

This course will introduce the student to aircraft instrumentation, communication radios, navigation equipment, and position/warning systems. The students will understand how to inspect, check, troubleshoot, and service aircraft flight instrumentations systems both mechanical and electronic. Students will learn about the different types of position and warning systems for landing gear, airspeed, takeoff, landing, brake control, and wheel anti-skid. Students will investigate VHF and HF communication radios, navigation equipment, and GPS used on today's aircraft. In lab students will remove and install flight instrument radio equipment and perform pitot-static system leak checks. Students will test and service stall warning, gear warning, and anti-skid brake systems.

AVIT 2242 Aircraft Atmospheric & Protection Systems 3 credits

This course will introduce the student to fire protection, ice, rain, and cabin atmosphere control systems. Students will inspect, check, troubleshoot, and service smoke, carbon monoxide, fire detection, and fire extinguishing systems. Students will investigate cabin atmosphere control systems which include heating and air conditioning both vapor cycle and air cycle. Student will inspect, check, troubleshoot, and service aircraft oxygen systems.

AVIT 2243 Aircraft Assembly & Rigging 4 credits

This course will introduce the student to aircraft assembly and rigging of the wings, tail, and flight controls. Students will disassemble an entire aircraft, removing primary and secondary flight controls, empennage and wing assemblies. Student will balance all primary flight controls. Student will reassemble aircraft and rig aircraft for flight in accordance with the manufacturer's data.

AVIT 2244 Airframe Inspection 3 credits

This course will introduce the student to the aircraft inspection process and programs. Students will open and inspect an aircraft following the prescribed 100 hr. or annual inspection check. Students will write discrepancies found on aircraft on appropriate inspection paperwork. Students will perform necessary repairs to correct the discrepancies on aircraft inspected and return aircraft to an airworthy condition. The inspection process will be performed to conformity and airworthiness standards.

AVIT 2351 Aircraft Reciprocating Engines I 6 credits

This course will introduce the student to theory, operation, construction, overhaul, repair, and assembly of reciprocating aircraft engines. The student will learn how a four stroke five event engine operates and how they are mounted and operated on aircraft. Students will remove and install engines on aircraft. Lab is hands-on where the students will disassemble, inspect, assemble, and troubleshoot four and six cylinder horizontally opposed air-cooled engines. Student will also investigate the operation, construction and overhaul of radial aircraft engines.

AVIT 2352 Aircraft Reciprocating Engines II 6 credits

This course will introduce the student to the ignition, electrical, fire protection, and induction/exhaust used on reciprocating aircraft engines. The students will overhaul aircraft engine magnetos. This will include inspection, servicing, and troubleshooting the ignition and ignition harness. Student will remove, disassemble, inspect, and install starters, generators, alternators, and

engine instruments. Students will investigate induction and exhaust systems including superchargers and turbochargers which will involve the servicing and troubleshooting of these systems.

AVIT 2353 Aircraft Fuel Metering 5 credits

This course will introduce the student to aircraft fuel systems used on reciprocating and turbine aircraft engines. Students will inspect, check, service, troubleshoot, and repair float carburetors, pressure carburetors, fuel injection, and turbine fuel control units.

AVIT 2361 Aircraft Turbine Engines I 6 credits

This course will introduce the student to theory, operation, construction, overhaul, repair, and assembly of turbine aircraft engines. The students will learn the different types of turbine engines used in aircraft for flight and auxiliary power. Students will remove and install turbine engines on aircraft. Lab is hands-on where the students will disassemble, inspect, assemble, and troubleshoot axial and centrifugal flow turbine engines.

AVIT 2362 Aircraft Turbine Engines II 6 credits

This course will introduce the student to the ignition, electrical, fire protection and induction/exhaust used on turbine aircraft engines. Students will inspect, service, and troubleshoot the ignition and ignition harness used on turbine engines. Student will remove, disassemble, inspect, and install starters, generators, alternators and engine instruments. Students will investigate induction and exhaust systems which will involve servicing and troubleshooting.

AVIT 2363 Aircraft Propellers & Cooling Systems 5 credits

This course will introduce the student to aircraft propellers, engine lubrication, and cooling systems. Students will identify and select the proper lubricants used in aircraft engines. Students will inspect, check, service, and troubleshoot engine lubrications and cooling systems. Students will remove, inspect, service, and install aircraft fixed-pitch, constant-speed, feathering propellers, and propeller governing systems. Student will repair aluminum alloy propeller blades in accordance with appropriate manufacturer's data.

AVIT 2364 Aircraft Powerplant Inspection 3 credits

This course will introduce the student to the engine inspection process and programs. Students will open and inspect an engine following the prescribed 100 hr. or annual inspection check. Students will write discrepancies found on engines on appropriate inspection paperwork. Students will perform necessary repairs to correct the discrepancies on the engine inspected and return the engine to an airworthy condition. The inspection process will be performed to conformity and airworthiness standards.

BIOL - BIOL**BIOL 1101 Principles of Biology I** 5 credits

Prerequisite: High School biology within the last 3 years or BIOL 1104 within the last 3 years

Students will be exposed to modern concepts of the chemical, cellular, bases of life. Topics include: scientific methodology; chemistry of life; structure and function of cells; energy transformations; cellular reproduction; Mendelian genetics; DNA structure, function, replication; and the processes involved in protein synthesis; the influence of genetic material in life systems, human manipulations of DNA, fundamental concepts of the theory of evolution; biological diversity and evolutionary adaptations of organisms; bacteriology; and protists diversity. Laboratory sessions emphasize experimental design and critical thinking. This course is for Associate of Science degree or for pre-professional students wishing to transfer as biology majors.

BIOL 1102 Principles of Biology II 5 credits

Prerequisite: BIOL 1101 and BIOL 1111

The major focus in this course is on the organism through biosphere levels of life. Topics include: diversity of plants, fungi, and animals; plant structure and function; the biology of animal systems; fundamentals of ecology and the biosphere. Laboratory sessions emphasize experimental design and critical thinking. This course is for Associate of Science degree or for pre-professional students wishing to transfer as biology majors.

BIOL 1104 Human Biology I 4 credits

A course on the basic biology of the human organism. Topics include simple chemistry, cell and tissue structure and function, structure and function of the nervous and endocrine systems, cell division, basic genetics, DNA biology, reproduction and aging. Laboratory sessions emphasize and reinforce major concepts covered. For non-science majors.

BIOL 1105 Human Biology II 4 credits

Prerequisite: BIOL 1104

A continuation of BIOL 1104. Human systems examined include cardiovascular, digestive, respiratory, urinary, skeletal, muscular and immune. The course also includes an examination of the DNA to protein connection and discusses the basics of biotechnology. Laboratory sessions emphasize and reinforce major concepts covered. For non-science majors.

BIOL 1125 Environmental Science 4 credits

This is an introductory course to environmental science. Topics include environmental systems, evolution, biodiversity, population ecology, species interactions and community ecology, human population, soil and

agriculture, biodiversity and conservation biology, cities, forests, and parks, geology, minerals, mining, fresh water, oceans, coasts, air pollution, global climate change, nonrenewable and renewable energy sources, and waste management. Laboratory exercises will complement the concepts taught in the lecture.

BIOL 1199 Seminar 1-6 credits

This course will be a discussion of particular problems related to chosen program and areas of interest.

BIOL 2205 Anatomy & Physiology I 4 credits

Prerequisite: High School Biology within the last 3 years or BIOL 1104 within the last 3 years

This course begins with an introduction to the basics of human anatomy and physiology, evolution, human related anatomical terms and reference points. The course is also an examination of simple chemistry, cell and tissue structure and function, and basic metabolic processes including mitosis. The class will begin study of human systems, including the integumentary system, skeletal system, articulations associated with the skeletal system, muscular system, and the nervous system including somatic and special senses. Laboratory exercises are designed to complement topics covered in lecture.

BIOL 2206 Anatomy & Physiology II 4 credits

Prerequisite: BIOL 2205

Topics cover the structure and function of the human: endocrine system, cardiovascular system including blood, lymphatic system including immunity, digestive system including nutrition, respiratory system, urinary system including fluid balance, electrolyte and acid-base balance, reproductive system including development, and basic genetics including human inheritance. Laboratory exercises are designed to complement topics covered in lecture.

BIOL 2210 Microbiology 4 credits

Prerequisites: BIOL 1101 or BIOL 2205

This course covers the morphology and physiology of microorganisms and selected human parasites. Topics covered include basic chemistry, cell structure and function, metabolism, genetics, biotechnology, growth and control of microbes, normal human microflora, mechanisms of disease production, transmission of infectious diseases, immune responses, and the action of specific pathogens in the production of human infectious disease. There is also a brief introduction to environmental microbiology and various career options in microbiology. There is also a laboratory component that exposes students to biosafety and the practice of good aseptic technique.

**BUSINESS ADMINISTRATION -
BADM****BADM 2204 Principles of Marketing** 3 credits

An introduction to marketing fundamentals, develop target markets, the marketing mix, and understanding consumer behavior. Included is a study of the structure and functioning of the marketing system as it relates to retailing and wholesaling. Emphasis is also placed on pricing, planning, implementing, and controlling marketing plans, programs, and systems.

BADM 2206 History & Principles of Management 3 credits

This course is an introduction to the history and concepts of management. Concentration on ethical and social responsibility, the planning process, decision making, organizational behavior, organizational structure, power, authority, delegation, and decentralization. As part of the study of management this course covers such topics as organizational change, staffing, leadership, motivation, communication, and managerial controls.

BADM 2208 Supervision and Leadership 3 credits

Student will develop leadership skills, practices, and a personal philosophy of leadership. The course will cover leadership theories and effective methods.

BADM 2213 Personal Finance 3 credits

This course will focus on family and personal budgeting, building a good credit history and the use of credit. Students will be exposed to the use of insurance, checking and saving accounts, stocks, bonds, mutual funds, credit cards, mortgages, taxes and federal, state and local tax structure. Students will learn about buying (leasing) a new or used motor vehicle, renting or buying a home and how to develop a career search strategy. This course will prepare the student for his or her role as a citizen, a consumer and a productive member of society.

BADM 2215 Gender & Diversity 3 credits

Basic gender diversity theories are analyzed to provide the student with a firm foundation for managing in a workforce composed of individuals. Women are taking more of a role in American productivity; men are “switching places” with their partners. The course will examine the effects of gender and diversity in the workplace and how to manage and balance these issues.

BADM 2216 Business Ethics 3 credits

This course is an introduction to various ethical topics and situations the office or computer professional may encounter in today’s workplace. Examining ethical dilemmas and essential tools for analyzing them, this course will bring real world, hands-on experience to common ethical dilemmas.

BADM 2220 Human Resources Management 3 credits

An introduction to structure and functions of personnel activity, recruitment and placement, performance appraisal, salary administration, employee benefits, personnel planning, management development, and labor relations.

BADM 2222 Business Finance 3 credits**Prerequisites: ACCT 1102 and ECON 2205 OR ACCT 1105 and ECON 2205**

Course is an introduction to basic concepts, principles, and analytical techniques of financial management. Topics include the whole scope of the financial system and its functions: (1) the markets, (2) the institutions, and (3) the principles and concepts of financial management which guide the participants in making sound decisions.

BADM 2225 Social Media/Marketing 3 credits**Prerequisites: ENGL 1101**

This course is an introductory class into the use and development of social media and marketing. Students will learn the importance of using the social web for media and marketing purposes and learn how to develop news stories and marketing material for the internet and mobile devices.

BADM 2251 Business Law I (The Legal Environment) 3 credits

This course is an introduction to the legal and social environment of business. This course covers ethics, court jurisdiction, dispute resolution, regulation of business, torts, business crimes and international law. This course also covers topics in agency relationships, stakeholders, shareholders, forms of business organizations, government regulations, employment law, antitrust regulations, and property rights.

BADM 2252 Business Law II (The Formation & Regulation of Business) 3 credits

This course is an introduction to the numerous legal topics including contracts, agreements, contractual capacity, consideration, form of contract, third persons, and genuineness of assent, legality, discharge and breach of contract. This course also covers sales and leases, negotiability, bank/customer relations, secured transactions and bankruptcy.

BADM 2272 Business Communications 3 credits

A practical introduction to interpersonal communication as it applies to the modern workplace. Students will create a variety of business documents and communications using current, industry relevant, technology. Special emphasis will be placed upon strategies for communicating in a team setting. This course will assist

students in developing the written, oral, and collaborative skills necessary for future business courses, internships, and professional positions.

BADM 2290 Problems in Business 3 credits
Prerequisites: ACCT 1102, BADM 2251, CSCI 2218, ECON 2205 OR ACCT 1105, BADM 2251, CSCI 2218, ECON 2205

A comprehensive survey course designed to test the student's mastery of the core courses required for the Associate Degree. The overall subject matter deals with business planning. The course is a series of projects: market research, case studies in management, a presentation, labor negotiations, a complete business plan, and a comprehensive final. Successful completion of the course requires a portfolio of reports covering the assigned projects.

BADM 2299 Seminar 1-6 credits
Prerequisites: second year in Business Management program and permission of instructor and full-time discipline faculty.

This course will be a discussion of particular problems related to the student's chosen program and areas of interest.

BIOTECHNOLOGY - BTNL

BTNL 1110 Introduction to Biotechnology and Laboratory Science 4 credits

Prerequisites: High School Biology within the last 3 years, High School Biotechnology, BIOL 1104

An exploration into the fascinating world of modern DNA science and laboratory analysis. The course will provide a lecture and hands-on participation in the application of modern DNA science and laboratory analysis to forensics, medicine, the environment, food science, agriculture, and the arts. A background in basic biotechnology and laboratory science will lead to the performance and practice of advanced techniques including analysis of human genes, identification of genetic elements in commercial foods containing genetically modified organisms (GMOs), transformation of an organism with a new DNA element, using antibodies in identification of a foreign protein or organism. Students will perform techniques involved in modern forensic analysis such as a restriction analysis and PCR which are often used on crime scene samples. Students will learn how to read and understand the new molecular genetic data often found in patient diagnoses of cancer and genetic diseases. The breakdown of oil by bacteria will be performed, a technique that is often used to clean the environment in oil spills.

BTNL 1120 Biotechnology and Laboratory Science of Agriculture and Aquaculture. 4 credits

Prerequisite: BTNL 1110 or BIOL 1101

This course studies and performs many of the fascinating technological applications of biotechnology to agriculture and aquaculture.

This course will perform plant tissue culture from obtaining an explant in a sterile environment to forming a commercial enterprise for the sale of the mature plants.

There will be a survey of currently used transgenic plants and animals in Ohio. This will include transgenic soy beans and corn. There will be an examination of the culture and use of algae in Ohio and an examination of Ohio aquaculture in general.

The course will discuss the use of recombinant DNA technology to produce genetically engineering plants and animals. Recombinant DNA technology will be applied to transfer genetic material into plants using *Agrobacterium tumefaciens*. PCR will be used to test for and identify the presence of genetically modified organisms (GMOs) in grocery store products. Genetic use restriction technology (GURT) will be evaluated.

Biotechnology is used to identify and verify strains and pedigrees. A plant variant will be identified using molecular biological methods.

The mammalian immune system will be studied. There will be an application of the principles of immunology to the production of vaccines, medical and veterinary tests, and quality control tests for food purity; a diagnostic immunoblot will be constructed and used. The production of monoclonal antibodies for pharmaceuticals will be investigated. The use of farm animals in Ohio to produce antibodies will be examined. The use of plants in Ohio such as tobacco to produce antibodies will be discussed.

Algae will be maintained in a bioreactor. Fish maintenance and culture will be studied. Animal tissue culture will be studied and performed. The purity of agriculture products will be analyzed using visible Spectrophotometry, UV Spectrophotometry.

BTNL 1199 Seminar 1-6 credits
Discussion of particular problems related to chosen program and areas of interest.

BTNL 2210 Biotechnology and Laboratory Science of Microorganisms 4 credits

Prerequisites: BTNL 1110 and BIOL 2210

This course explores many fascinating areas of genetic engineering and DNA science. Sterile laboratory technique, the preparation of different types of culture media, transformation, conjugation, and transduction of bacteria will be studied and practiced. Bacteria, bacteriophages, yeast, multi-cellular fungi, and nematodes will be cultured. Many molecular biotechnology

techniques will be performed on microorganisms or using microorganism products. Restriction sites on plasmid DNA and Lambda virus DNA will be mapped. Bacteria will be transformed to make Green Fluorescent Protein (GFP); the Green Fluorescent Protein will be purified and analyzed, Epigenetics and RNA interference will be studied and RNA interference will be examined in the laboratory. The course examines and practices safe handling procedures for chemicals, equipment, and living organisms, especially microorganisms, and the use of personal protective equipment. Regulations of different governmental and advisory agencies will be studied.

BTNL 2220 Advanced Biotechnology and Laboratory Science 4 credits

Prerequisites: BTNL 1110, BIOL 2210, and CHEM 1120 OR CHEM 1151

And in-depth look into the application and business of modern biotechnology and laboratory science. Advanced Biotechnology will include an overview of fermentation processes, and identification of different types of bioreactors with an explanation of the use of each type. Useful products will be made with a bioreactor. The products made in the bioreactor will be purified and tested for impurities and contaminants using gas chromatography, NIR spectrometry, UV spectrophotometry and other methods. A research project to sequence a novel genetic segment will be developed. Bioinformatics will be used to investigate sequences in general and sequences related to the research project. Electrophoretic properties of native proteins will be investigated, Model organisms such as *Caenorhabditis elegans*, *Drosophila melanogaster*, Zebrafish, and *Arabidopsis* will be cultured. An important part of this course will be the development of biotechnology and laboratory science equipment and processes from common every day materials to be used by schools and other individuals in the United States and in developing nations.

BTNL 2225 Historical, Ethical, Legal, Social, and Economic Issues of Biotechnology and Laboratory Science 2-4 credits

Prerequisites: BTNL 1110

An examination into the ethical, legal, social, and economic issues raised by the modern world of DNA science. This course will study the history of: scientific investigation, the discovery of DNA, the discovery of the structure of DNA, biotechnology, and laboratory science. The course will analyze the ethical issues related to genetically modified organisms (GMOs), cloning, scientific research, eugenics, experimentation on humans, pre-implantation genetic diagnosis, prenatal testing, general genetic testing, animal care, medical treatment and other issues. Legal issues will be

studied and include patents, copyrights and the application of genetic use restriction technology (GURT). Economic issues associated with the stock market and patents will be examined. Biotechnology and laboratory science plays an important role in popular culture. Books, movies, and television shows based on laboratory science and biotechnology will be reviewed. Career skills and workplace ethics will be discussed. Students will prepare a resume and examine opportunities for employment. A trip to Europe to visit sites associated with the discovery of the structure of DNA and other important related places will be an option. Visits to the University of London-Kings College where X-ray crystallographic images of DNA were made by Rosalind Franklin, the Cambridge area and The Eagle Pub where the announcement of the discovery of DNA structure was made, and many important sites associated with molecular biology and the history of science in general will be an option.

BTNL 2280 Biotechnology and Laboratory Science Work Experience 1-8 credits

Prerequisite: The student must have completed Introduction to Biotechnology (BTNL 1110).

Biotechnology and Laboratory Science Work Experience is a paid or unpaid work activity which relates to an individual student's occupational or learning objectives.

CHEMISTRY - CHEM

CHEM 1120 Introduction to Chemistry 5 credits

Prerequisite: MATH 101, MATH 106 or MATH 1106, or 2 years of college preparatory math with minimum grade of "C" or higher, or appropriate score on college placement assessment.

An introductory approach designed for non-science majors. Designed especially for those students with no high school chemistry background. A variety of chemistry related topics will be covered with laboratory exercises designed to complement the lecture.

CHEM 1124 Elementary Organic Chemistry 4 credits

Prerequisite: High school chemistry or CHEM 1120.

An introduction to organic chemistry including functional groups and reactions is followed by an investigation of important biochemicals including carbohydrates, proteins, lipids, and enzymes. In addition, nucleic acids and their role in protein synthesis are studied as are neurotransmitters and their role in chemical communication. Desirable for students interested in Allied Health.

CHEM 1151 First Year Chemistry I 4 credits

Prerequisite: CHEM 1120 or 1 year of high school chemistry & high school algebra or its equivalents

Corequisite: CHEM 1161

A college level chemistry course covering measurement, significant figures, moles, chemical formulas, chemical equations, stoichiometry, acids and bases, oxidation-reduction, thermochemistry, quantum mechanics, atomic orbitals, and bonding theories.

CHEM 1152 First Year Chemistry II 4 credits

Prerequisite: CHEM 1151

Corequisite: CHEM 1162

A continuation of the study of college chemistry covering gases, intermolecular forces of attraction and phase changes, solutions and colligative properties, chemical kinetics, chemical equilibrium, acid-base equilibria, thermodynamics, electrochemistry, and descriptive chemistry.

CHEM 1161 First Year Chemistry Lab I 1 credit

Corequisite: CHEM 1151

Laboratory experiments which support many of the chemical concepts covered in Chemistry 1151. Laboratory techniques and data analysis are emphasized.

CHEM 1162 First Year Chemistry Lab II 1 credit

Prerequisite: CHEM 1151 & CHEM 1161

Corequisite: CHEM 1152

Laboratory experiments which support many of the chemical concepts covered in CHEM 1152. Laboratory techniques and data analysis are emphasized.

CHEM 1199 Seminar 1-6 credits

This course will be a discussion of particular problems related to chosen program and areas of interest.

CHEM 2201 Organic Chemistry I 4 credits

Prerequisite: CHEM 1161 and CHEM 1162

Corequisite: CHEM 2211

This course is designed to give the student extensive background in bonding, nomenclature, and reactions of alkanes, cycloalkanes, alkenes, alkynes, alcohols, alkyl halides, conjugated alkenes, allylic systems and arenes. Addition, elimination, nucleophilic substitution, and electrophilic aromatic substitution reactions are covered including their mechanisms. Spectroscopy of organic compounds is introduced.

CHEM 2202 Organic Chemistry II 4 credits

Prerequisite: CHEM 2201

Corequisite: CHEM 2212

This course is designed to give the student extensive background in bonding, nomenclature, and reactions of organometallics, alcohols, diols, ethers, epoxides, aldehydes and ketones. Reactions of these types of compounds or leading to their formation will be

covered, including electrophilic aromatic substitutions and nucleophilic additions to the carbonyl group to enolates and organometallics. Spectroscopy of organic compounds will be introduced. The course is also designed to give the student extensive background in bonding, nomenclature, and reactions of carboxylic acids and their derivatives, amines, aryl halides and phenols. Reactions of these types of compounds or leading to their formation will be covered. Basic biomolecules such as carbohydrates, lipids, amino acids, and proteins and nucleic acids will be introduced with an emphasis on their basic primary, secondary and tertiary structures, as appropriate, and certain simple properties and reactions from an organic chemical perspective.

CHEM 2211 Organic Chemistry I Lab 1 credit

Prerequisite: CHEM 1151, CHEM 1152, CHEM 1161 and CHEM 1162

Corequisite: CHEM 2201

A course designed to give the student hands-on laboratory experience with the concepts of CHEM 2201 and the use of experimental apparatus and techniques in the practice of organic chemistry. Emphasis will be on microscale technique due to its safety and economy of time and resources as well as its frequent need in biochemical, natural product, environmental and pharmaceutical fields; however, some macroscale experiments may be performed. Experiments will include molecular modeling of compounds studied in CHEM 2201; basic techniques of recrystallization, melting point and boiling point determination, distillation, extraction, chromatography, and spectroscopy; the S_N2 reaction mechanism; selected addition and elimination reactions of alkenes, alcohols, and alkyl halides; 1,2 and 1,4 additions and Diels-Alder cycloaddition of conjugated dienes; infrared, gas chromatography and UV/visible spectrophotometry.

CHEM 2212 Organic Chemistry II Lab 1 credit

Prerequisites: CHEM 2201 and CHEM 2211

Corequisite: CHEM 2202

A course designed to give the student hands-on laboratory experience with the concepts of CHEM 2202 and the use of experimental apparatuses and techniques in the practice of organic chemistry. Emphasis will be on microscale technique due to its safety and economy of time and resources as well as its frequent need in biochemical, natural product, environmental and pharmaceutical fields; however, some macroscale experiments may be performed. Experiments will generally cover experimentally the concepts studied in CHEM 2202 including Friedel-Crafts, nitration, and other electrophilic substitution reactions of the aromatic ring; oxidation of alcohols; epoxidation of alkenes; preparation and reaction of organometallic compounds; the aldol condensation; and infrared and UV/visible spectrophotometry formation and reaction of carboxylic acids and

their derivatives; amines; phenols; versatile synthetic techniques such as the acetoacetic ester and malonic ester syntheses and aromatic diazonium salt reactions; carbohydrates; lipids; and proteins and other polymers.

COLLEGE SUCCESS - COLL

COLL 1100 College Success *2 credits*

This is a performance based course comprised of two components designed: (1) to introduce students to basic computer skills, Microsoft Word, Excel, and PowerPoint, Internet, and LRC resources; (2) to increase student success in college by developing self-esteem, personal responsibility, self-motivation, resource management, study skills, and academic and career planning.

COMMUNICATIONS - COMM

COMM 1110 Interpersonal Communication *3 credits*

An introduction to the principles of effective interpersonal communication. Relevant topics include self concept, perception, listening, verbal and nonverbal communication, emotions and conflict resolution.

COMM 1115 Fundamentals of Effective Speech *3 credits*

This course encompasses the composition and presentation of speeches. The objective is to help individuals speak effectively to other individuals or groups. The focus will be the study of organization, development, delivery, and purpose of various types of speeches.

COMM 2206 Media Writing *3 credits* **Prerequisite: ENGL 1101**

Media Writing is designed to introduce students to the basic processes of reporting and writing for newspapers (electronic and print) and broadcast media. Students will also explore photojournalism and newswriting for the web as well as writing for advertising and public relations. The course also addresses the editing process, Associated Press guidelines, and legal and ethical concerns of the journalist.

COMM 2250 Media & Culture *3 credits* **Prerequisite: ENGL 1101**

Media & Culture is a survey course designed to give students an overview of the content and effect of mass media including the Internet, newspapers, magazines, books, television, radio, films, the music industry, video games, social media, digital media, and other media with particular emphasis on news media. The course will acquaint students with the ways media are changing as well as the historical context of their development. Students will explore major trends in media consumption, and learn to analyze media news coverage in order to become better informed citizens.

COMPUTER SCIENCE - CSCI

CSCI 1101 Computer Keyboarding *1 credit*

In this course, students will master the computer keyboard by touch for personal use or in preparation for work in a business setting. Students will learn proper keyboarding techniques while keying alphabetic, numeric, and 10-key numeric keypad characters. Students will complete activities online, where drills will facilitate learning the keyboard and developing speed and accuracy.

CSCI 1109 Word Lab *1 credit*

Hands on computer use with word processing software. Familiarizes the student with problem solving using business application word processing preparation and editing according to Microsoft Word standards, methodology and terminology. We will be utilizing Microsoft Word 2016 software as our word processing program.

CSCI 1120 Computer Applications *4 credits*

This course is designed as an introduction to computer concepts including computer literacy, exploration of internet evaluations, computer hardware identification, operating systems, utility programs, social media, and computer security and privacy. This course provides a general working knowledge and understanding of Microsoft Windows and file management, Microsoft Office applications including OneNote, Outlook, Word, Excel, PowerPoint, Access, application integration and cloud computing.

CSCI 1121 Structured Programming *4 credits*

This course is designed to familiarize students with the fundamental concepts and techniques of a structured programming language. This course will introduce core programming basics using the Python programming language.

CSCI 1145 Introduction to Multimedia *3 credits*

This is an introductory course in multimedia applications and development. Students will learn introductory concepts in development of computer graphic design. They will also participate in hands on exercises to develop multimedia design skills.

CSCI 1146 Adobe Animate Animation Software *3 credits*

Students will learn introductory concepts in 2 dimensional computer animation, as related to the Adobe Flash software program. Students will learn about the animation environment and workspace, timelines and frames, creating and editing graphic symbols, keyframe animation, tweening animation and creating interactivity.

CSCI 1147 Adobe Dreamweaver Web Design 3 credits

This course is an introductory course in using Adobe Dreamweaver. Students will learn about planning, design, development, accessibility, and creating interactive Web sites.

CSCI 1150 Operating Systems 3 credits

This course is designed to introduce the student to various types of computer operating systems. It will familiarize the student with the basic commands and fundamental concepts needed to work in these systems. We will discuss single user, multitasking and multi-user systems along with user interfaces. Students cannot receive credit for both CSCI 1150 and EENG 1150.

CSCI 1155 LINUX 3 credits

This course is intended for students who want to learn about the Linux operating system and prepare to pass the Linux+ certification exam from CompTIA (Powered by LPI). It does not assume any prior knowledge of Linux and is geared toward those interested in systems administration as well as those who will use or develop programs for Linux systems. This course provides comprehensive coverage of topics related to Linux certification, including Linux distributions, installation administration, X-Windows, networking, and security.

CSCI 1165 Adobe Photoshop Digital Imaging 3 credits

Students will learn introductory concepts in drawing and image editing with the computer, especially as related to the Adobe Photoshop software program. Students will be learning about the differences between bitmap and vector graphics; working with editing tools and layers; masking, color correction and advanced composition, and working with file formats. Students will use the skills learned to take the Adobe Certified Associates exam.

CSCI 1171 Adobe InDesign Electronic Publishing 3 credits

Students will learn step-by-step the key techniques for working in Adobe InDesign. They will build a foundation of working with typography, document construction, page layout, digital publications, epub and PDF formats and forms. Students will design, import, and edit objects, graphics, and typography all while learning about document design.

CSCI 1199 Seminar 1-6 credits

This course is designed to explore more advanced topics with students who are either interested in a particular subject matter or are gearing the education to a specific area of computer science.

CSCI 2203 Adobe Illustrator Vector Graphics 3 credits

Students will learn step-by-step the key techniques for working in Adobe Illustrator. They will build a foundation of creating vector graphics for logos, illustrations, posters, etc. They will learn the basics of the Illustrator drawing and editing tools and being able to export their designs into a variety of formats.

CSCI 2205 Mobile Device Programming 4 credits
Prerequisites: CSCI 1120

This course prepares students to develop applications for the Google Android platform. Students will be able to build useful apps with Java and other integrated development environments. Object-oriented programming techniques will be reinforced.

CSCI 2213 Access 3 credits

Introduction to database software using adopted Microsoft Access release edition to create databases, understand data entry, record-keeping, working with fields, tables, forms, reports, queries, sharing data, and using database tools in preparation for Microsoft Access (MOS) 2016 Exam 77-730

CSCI 2216 Outlook 3 credits

Introduction to using Outlook as a contact management system by managing time, tasks, email, and projects. Includes effective and efficient management of message services including automated and message security, managing schedules, managing contacts and personal contact information, and information organization.

CSCI 2217 PowerPoint 3 credits

Introduction to presentation software using adopted Microsoft PowerPoint release edition for effective, efficient, dynamic presentations with creating of master presentations, templates, slide content, and collaborating and delivering presentations and preparation for the Microsoft PowerPoint 77-729 Exam.

CSCI 2218 Excel 3 credits

Introduction to spreadsheet software using adopted Microsoft Excel release edition to create, design, edit, and enhance spreadsheets and workbooks, format worksheets and workbooks, working with and understand numerical data entry, basic formulas and functions, design charts, enhance with pictures and logos, secure and share data, in preparation for the Microsoft Excel 77-727 Exam.

CSCI 2233 CISCO Introduction to Networks 3 credits

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure

of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

CSCI 2234 Server Administration 3 credits

Prerequisite: CSCI 1150

This course is designed to teach basic server administration concepts on a LAN network server. It is a continuation of the concepts introduced in CSCI 1150. The course familiarizes the student with server administration and management concepts.

CSCI 2236 CISCO Routing & Switching Essentials 3 credits

Prerequisites: CSCI 2233

Describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANS, and inter-VLAN routing in both IPv4 and IPv6 networks.

CSCI 2240 Systems Analysis 3 credits

Prerequisites: CSCI 1120

This course introduces the student to the study of systems analysis. The course covers information systems, equipment requirements, and modeling of new systems. The cases, projects and exercises give the student a wide variety of experiences and options to explore and apply the concepts of system analysis.

CSCI 2246 PC Troubleshooting & Repair 3 credits

This course will cover diagnostics, repair and upgrade of computers and peripherals. The course will provide hands-on experience and will familiarize the student with hardware and troubleshooting concepts.

CSCI 2254 Computer Architecture & Design 4 credits

Prerequisites: CSCI 1121

This is an introductory course into computer architecture. This class will assemble a single board computer with a lecture section before each section to describe how the sections works. Use of Oscilloscope, Digital Logic probe and Millimeter are used to make measurements and troubleshoot each section.

CSCI 2255 Computer Programming Logic 3 credits

Prerequisites: CSCI 1120

This course is designed to introduce basic programming and logical thinking skills. Students will learn

problem definition, how to develop logical problem solving steps and then flowchart and diagram them. This course gives hands-on experience.

CSCI 2263 HTML 5 Programming 3 credits

Students will learn introductory concepts in building Web sites with HTML coding, adhering to HTML 5 standards. During this course students will learn to code links, list tables, and other Web page elements. Students will demonstrate formatting using CSS and also acquire beginning knowledge in scripting languages.

CSCI 2265 Introduction to Game Development 3 credits

Prerequisites: CSCI 1145 and CSCI 1165

Students will learn how to plan, design and create games in three different game design engines. Students will learn how to develop ideas, storyboard plots, design characters and interaction, and then assemble all elements into fully functional games and simulations. Students will learn the basics of gaming, simulation, interaction and 3-D technologies.

CSCI 2268 Adobe Premiere Video Editing 3 credits

Students will learn step-by-step the key techniques for editing and publishing digital video in Adobe Premiere. Students will develop skills in workflow, editing and organizing clips and adding audio, titles, effects and transitions. Students will begin to develop more advanced skills in sound mixing, compositing, color adjustment and virtual reality.

CSCI 2270 Co-Op - Interactive Media 2-12 credits
Prerequisite: Student must have completed 1st year of the 455A.

This Co-Op will give the student paid or unpaid practical working experience. Each student will be assigned working assignments with the various Private/Public work sites with agreements with SSCC including SSCC. The student will be assigned web design/development, video/audio production, social media, multimedia application development or training duties.

CSCI 2275 Professionalism 3 credits

This course will better prepare students on how to conduct themselves in a professional work setting. Topics include: career planning and exploration, self - assessment, career research, resume development, interview skills, Cooperative Education policies and procedures and other skills that bolster professional success.

CSCI 2280 Co-Op (Technical Support) 2–12 credits

Prerequisite: SSCC computer science instructor must approve students for the course.

This co-op will give the student paid or unpaid practical working experience. Each student will be assigned working assignments with the various private/public work sites with agreements with Southern State including Southern State. The student will be assigned web design/development, video/audio production, social media, multimedia application development or training duties.

CRIMINAL JUSTICE - CJUS**CJUS 1101 Introduction to Law Enforcement** 2 credits

This course will explore the history, development, philosophy and the current status of law enforcement in America. The structure and varying functions of law enforcement officers in the public and private sectors will be discussed. Police discretion, ethics, civil liability and community relations will be evaluated in order to analyze the sociological implications of contemporary policing.

CJUS 1102 Basic Law Enforcement I 8 credits

Prerequisite: Acceptance into Basic Peace Officer Training Academy

This course covers the first 16 weeks of the 26 week Basic Peace Officer Training Academy. CJUS 1102 and CJUS 1103 provide the student with the fundamentals of entry-level peace officer training for employment as a law enforcement officer. The student will learn the technical and social skills needed to perform in the area of law enforcement. There is an increasing demand for better educated law enforcement personnel so the successful student can expect job opportunities as a peace officer. This program is offered in conjunction with the Greenfield Police Department. This is a state certifying academy and is conducted under the guidelines mandated by the Ohio Peace Officer Training Commission and the Ohio Attorney General's Office.

CJUS 1103 Basic Law Enforcement II 8 credits

Prerequisite: CJUS 1102

This course is the last 10 weeks of the 26 week Basic Peace Officer Training Academy. CJUS 1102 and CJUS 1103 provide the student with the fundamentals of entry-level peace officer training for employment as a law enforcement officer. The student will learn the technical and social skills needed to perform in the area of law enforcement. There is an increasing demand for better educated law enforcement personnel so the successful student can expect job opportunities as a peace officer. This program is offered in conjunction with the Greenfield Police Department. This is a state certifying

academy and is conducted under the guidelines mandated by the Ohio Peace Officer Training Commission and the Ohio Attorney General's Office.

CJUS 1104 Private Security Training Course 6 credits

This 157 hour training academy is designed to meet the requirements of the Ohio Revised Code and the Ohio Administrative Code for armed private security officer certification and will address all academic and skill areas of basic private security duties.

CJUS 1105 Asset Protection & Loss Prevention 3 credits

The course focuses on administration and management issues related to corporate security functions, including strategic and operational management, risk management, contract security services, management of emergencies and loss prevention. Students will assess vulnerabilities and recommendations of the 9/11 Commission Report on the terrorist attacks against the United States. Facility protection standards are used to determine appropriate courses of action, from a security management perspective, using threat models and risk assessment concepts. Research is required and application of critical thinking is applied to address external threats and countermeasures. Practical exercises are conducted to apply research findings.

CJUS 1108 Introduction to Terrorism 2 credits

This course covers terrorists activities aimed at achieving radical changes around the world through violence. Topics include the identification of terrorist groups who are willing to kill innocent people by using explosives, weapons and other violent means; and the actions of governments to counter terrorism. Emphasis is placed on how terrorism has affected American security concerns and society in general.

CJUS 1111 Introduction to Correction 2 credits

This course will examine the institutional and non-institutional aspects of contemporary corrections. Community corrections, probation, parole and other forms of intermediate sanctions and incarceration alternatives will be analyzed. The operations of jails and prisons will be evaluated by focusing on safety, security, classification and programming.

CJUS 1115 Interpersonal Communication 2 credits

This course analyzes the basis of effective communication in corrections and law enforcement by focusing on report writing, interviewing and interpersonal communication skills. Students will learn note-taking techniques and learn how to gather information from an interview/interrogation. Verbal and non-verbal communication methods are explored in addition to the planning, organizing, preparation and editing processes for reports.

CJUS 1125 Criminal Law *3 credits*

This course will explore the history, scope and nature of criminal law. This course will analyze the general nature of crime, constitutional limits on crime and general principals of criminal liability. Topics include legal language and machinery, parties to crime, classification of offenses, act and intent, capacity to commit crime and various defenses. Primary emphasis will be on common law and modern statutory criminal codes. Students are provided knowledge of the building blocks of criminal law to include elements of crimes and defenses to criminal charges. The role of the police, criminal courts and attorneys in the administration of the criminal justice system will be discussed in detail. The course will teach the student how to analyze and brief criminal cases and identify and discuss criminal issues. An overview of the criminal justice process and rules of evidence will be provided.

CJUS 1199 Seminar *1-6 credits*

This course will be a discussion of particular problems related to the students chosen program and areas of interest.

CJUS 2201 Criminology & Victimology *3 credits*

The first part of this course will explore the origin, nature and extent of crime through an analysis of various causation theories. The various types of crimes, classifications of offenders and an overview of society's response to criminal behavior will be discussed. The second part of this course will introduce students to the role of victimology in today's criminal justice system. The discussion will focus on specific theories and coping strategies pertaining to domestic abuse, sexual assault, child maltreatment, elder abuse, property crime and homicide. Information regarding the victim's rights movement, legislation and programming will be incorporated throughout the course.

CJUS 2215 Ethics in Criminal Justice *2 credits*

This course is an examination of issues of professional and ethical behavior within the criminal justice system. Key issues examined include professional behavior of the individual and the agency. Current topics such as sexual harassment, accreditation and maintenance standards and community relations are also discussed.

CJUS 2218 Police Administration *3 credits*

Prerequisite: CJUS 1101, CORR 101 or LENF 101

This course will examine police administration from multiple perspectives; from a systems perspective emphasizing the interrelatedness among units and organizations; from a structural perspective emphasizing administrative principles, management functions and the importance of guidelines; a human behavioral perspective emphasizing the human element in organizations; and a strategic management perspective emphasizing

communications and information systems, performance evaluations, strategies and tactics to increase effectiveness of police agencies.

CJUS 2220 Restorative Justice *2 credits*

This course will introduce students to the restorative justice movement in the criminal justice system. The historical background as well as the philosophies and practices resulting from this movement will be explored. Students will learn the significance of victim-offender mediation, community service and other reparation-based practices that seek to not only help heal those victimized by crime but also help reintegrate offenders into and with the community.

CJUS 2230 Critical Incident Management *2 credits*

This course will explore the volatile nature of managing critical incidents that occur within the field of corrections and law enforcement. Specific focus will be on the dynamics and methods involved in hostage negotiations, intervention strategies during a critical incident and the utilization of effective interpersonal communication skills. Team intervention approaches will be discussed along with information regarding post-incident debriefing.

CJUS 2233 Criminal Investigation *2 credits*

This course will introduce the fundamentals of criminal investigations through practical and theoretical approaches. Interviewing strategies, evidence collection and crime scene processing will provide a basis on which to manage an investigation and prepare for its presentation.

CJUS 2234 Constitutional Criminal Procedures *3 credits*

The first part of this course will examine the United States Constitution by applying the Bill of Rights to the operations of the criminal justice system. Information regarding judicial philosophies, interpretations and decisions will provide a basis on which to discuss the role of the United States Supreme Court and its ability to affect law. The second part of this course will examine a multitude of legal issues facing correctional staff. Sources of correctional law and specific constitutional amendments will structure discussions regarding the confinement and treatment of incarcerated inmates as well as those supervised in the community.

CJUS 2235 Law Enforcement Internship *2 credits*

Prerequisites: CJUS 1101, CORR 101 or LENF 101 and sophomore standing and good academic standing

On-the-job placement, selected by the College or by the student and approved by the College, will provide the student an opportunity to experience working in a criminal justice agency.

CJUS 2236 Current Issues in Criminal Justice 3 credits**Prerequisite:** CJUS 1101, CORR 101 OR LENF 101

The first part of this course will explore major issues facing corrections today by analyzing the social context in which punishment occurs. Statistical data and varying points of view will broaden the scope of the topics allowing students to examine the impact of these correctional problems on the criminal justice system and society. Topics will include prison violence, gangs, institutional crowding, societal change and its impact on correction, inmate subcultures, female offenders, juvenile offenders, rehabilitations and treatment needs of offenders, correctional privatization and the death penalty. The second part of this course will examine the day-to-day policing and the stress found in both the daily grind and the division and stigmatization of certain branches of a law enforcement agency. Topics will include the dangers of misplaced loyalties, policing priorities and Restorative policing.

CJUS 2240 Correctional Case Management 3 credits**Prerequisite:** CJUS 1101

The first part of this course will analyze the function of probation, parole and community corrections as well as the role of those persons/officers conducting supervision of criminally convicted adults and juveniles. Offender classification, supervision and programming are examined with emphasis on case law, ethical issues and current trends. The second part of this course will examine correctional counseling, treatment and intervention practices from an intuitional and non-intuitional perspective. Specifically, the student will be introduced to methods of conducting initial assessments in order to determine offender risks and needs. Case planning practices including goal setting and referral will be discussed with emphasis placed on special populations of correctional offenders.

CJUS 2241 Comparative Criminal Justice Systems 3 credits**Prerequisite:** CJUS 1101, CORR 101 or LENF 101

This course examines the differences in criminal justice systems of nation states, sovereignty issues and the impact of international crime on the quality of life and its ability to undermine the rule of law and democratic government.

CJUS 2245 Crime Scene Investigation 3 credits**Prerequisite:** CJUS 2233

This course will introduce students to the role of the crime scene investigator in today's criminal justice system. Major topics include the identification, collection and preservation of physical evidence at the crime scene.

CYBER SECURITY & FORENSICS - CYBR**CYBR 1101 Database Security** 3 credits

To understand the importance of database security by developing the know-how and skills to protect a company's technology infrastructure, intellectual property and future prosperity within organizations.

CYBR 1115 Introduction to Computer Forensics and Cyber Crime 3 credits

This course is an introduction into the concepts, terminologies, and terms that have been developed to communicate and understand the history of computer forensics and cyber-crime.

CYBR 2205 Terrorism and Homeland Security 3 Credits

This course seeks to examine the history of terrorism and its manifestations in the contemporary world. The course will cover nationalistic terrorism, religious terrorism and domestic and special interest group terrorism. The course concludes with an examination of the political and ethical implications of the "global war on terror," and homeland security.

CYBR 2210 CompTIA Security + 4 credits**Prerequisite:** CSCI 1120

This course introduces the concepts and understanding of the field of computer security and how it relates to other areas of information technology. Topics include security threats, hardening systems, securing networks, cryptography and organizational security policies.

CYBR 2215 Advanced Computer Forensics and Cyber Crime 4 credits**Prerequisite:** CYBR 1115

This course is an introduction into the concepts, terminologies, and terms to skillfully complete a computer investigation from acquiring digital evidence to reporting findings.

ECONOMICS - ECON**ECON 1199 Seminar** 1-4 credits

This course will be a discussion of particular problems related to chosen program and areas of interest.

ECON 2205 Principles of Microeconomics 3 credits

This course will introduce you to the economic way of thinking and decision making for Businesses and Consumers. You will become familiar with supply and demand; how the consumer, business, and the government affect prices; and public choices vs. private choices.

ECON 2206 Principles of Macroeconomics 3 credits

This course looks at the Aggregate Economy and its effects on Businesses and Consumers. Subjects that will be covered include the basic theory of national income analysis, unemployment and inflation, and Monetary and Fiscal policies of the federal government.

EDUCATION - EDUC

EDUC 1101 Introduction to Education 3 credits

This introductory course is designed to acquaint students with the field of education. Student will examine technology and its impact on schools, ethical and legal issues facing teachers, effective teaching strategies, diversity in the classroom, social problems and how they relate to schools, standard-based education, professionalism in education and current curricula. Students will complete a variety of activities including writing reflective essays for inclusion in the student portfolio.

EDUC 1102 Foundations of Education 3 credits
Prerequisite: EDUC 1101

This course is an examination of the relationship between school and society through the lens of current issues in education. A variety of perspectives will be examined, including historical, philosophical, ethical, and legal. Through classroom observations and journal entries, students will develop an understanding what it means to be reflective practitioner. Students will also submit final portfolios for review. A forty-hour field component in public school classroom is required; consequently, students will be required to pass a background check. Observations will be evenly distributed among early childhood, middle school, high school, and special education programs.

EDUC 1110 Art/Music for the Young Child 3 credits

This course is designed to prepare those in early childhood education with basic music and art activities for the young child. An exploration of music and art instructional methods, learning sequences and teaching strategies will be emphasized. Students will actively participate in music and art activities during class time. Eight hours of classroom observation of young children involved in music and/or art are also required.

EDUC 1118 Guiding Children's Behavior & Learning 3 credits

This course is designed to prepare those in education with conceptualizations of adult-child and child-child relationships. Students will be introduced to principles and skills that will allow them as future educators to relate to children in ways that will maximize their potential. The student will observe a total of four hours in an approved early childhood classroom setting.

EDUC 1120 Language/Literacy Development in the Young Child 2 credits

This course is a study of the stages of language and literacy development in the young child. The student will observe a minimum of four hours in an early childhood classroom setting.

EDUC 1140 Introduction to Early Childhood Development & Education 3 credits

Corequisite: EDUC 1145

Candidates will demonstrate essential understanding of young children's characteristics and needs, knowing and understanding the multiple influences on development and learning, and using developmental knowledge to create healthy, respectful, supportive and challenging learning environments. Candidates will be subject to pass a mandatory background check.

EDUC 1145 Observation/Assessment of Children 2 credits

This course is a study of various methods of observation and assessment techniques that are utilized in an early childhood classroom setting. Students will observe a minimum of four hours in an approved early childhood classroom setting.

EDUC 1163 Social Studies for the Young Child 2 credits

This course is designed to provide students with the natural and social science concepts that are taught in the Early Childhood and Elementary classroom settings as well as the various teaching methodologies for the teaching of these concepts. Students will develop lessons in the content area of social studies and have the opportunity for the evaluation of these lessons. The social studies methods segment of this course will focus on the relevance of history and geography, the study of people, and the interaction of people with others and the world around them. Strategies for engaging and empowering young learners to become active, democratic citizens will also be presented.

EDUC 1199 Seminar 1-3 credits

This course will be a discussion of particular problems related to chosen program and areas of interest.

EDUC 2210 Administration of Early Childhood Programs 2 credits

Prerequisite: EDUC 1140

This course is designed to prepare students for administrative and leadership roles in the field of early childhood education. An overview of various types of early childhood programs and philosophies will be presented. Relevant topics including program planning, implementing, leading and managing personnel, financing and budgeting, and establishing policies will

be discussed. A review of current licensing laws as established by the Ohio Department of Job and Family Services will also be included in the course. Four hours in an approved setting is required.

EDUC 2215 Health/Physical Education for Children 2 credits

This course provides a foundation in content and methodology for the teaching of physical education, including movement and health, for children birth through age eight. It focuses on integrating movement, physical activity and physical education in early childhood settings as well as understanding and using developmentally effective practices in teaching. Development of hands-on learning experiences, integration of content area standards, and the impact of new technology are explored.

EDUC 2217 Science & Math Experiences for the Young Child 2 credits

The purpose of this course is to provide early childhood educators guidelines for the direct and indirect techniques of the effective discovery science teacher. It is designed to help teachers discard biases toward science and to build upon science knowledge they already have to enable confident work with young children. The student will observe a total of 4 hours in an approved early childhood classroom setting.

EDUC 2219 Infant/Toddler Care & Education 3 credits

Prerequisite: EDUC 1140

This course is a study of early development and explores the elements of quality in group care that support strong relationships and positive learning experiences. Responsive and reflective practice in a developmentally appropriate program is emphasized. Ohio's Early Learning and Development Standards will also be presented. The student will observe a total of four hours in an approved infant/toddler program.

EDUC 2220 Foundations of Literacy 3 credits

Prerequisite: EDUC 1101 and ENGL 1101

This course is designed to provide students with an understanding of the reading process. Contemporary theories and issues regarding literacy learning will be addressed. Current approaches to reading instruction including skill instruction, word-recognition instruction, ability grouping, whole-language instruction, literature-based instruction, invented spelling, and phonics will be covered. Students will become familiar with influences on the reading process such as cultural, linguistic, and ethnic diversity as well as developmental influences including environmental, emotional, social, and cognitive limitations and experiences. Classroom assessment alternatives will also be addressed. Ten hours of literacy instruction in inclusive settings are also required.

EDUC 2224 Paraprofessional Practicum 2 credits

Corequisite: EDUC 2225

This practicum course is designed to provide students with opportunities to apply their skills and knowledge gained in college coursework to inclusive classroom settings. Two separate placements will offer students the opportunity to work with children with special needs of varying ages. Students will maintain a journal and time sheet which is to be submitted weekly to the instructor. Under the guidance of the on-site cooperating teacher, the student will work as a paraeducator for a minimum of 16 hours per week to total 240 hours.

EDUC 2225 Paraprofessional Seminar 2 credits

Prerequisite: minimum GPA 2.5

Corequisite: EDUC 2224

This seminar is designed to accompany EDUC 2224. The seminar will provide students with opportunities to share and critique their on-site experiences. Weekly journals and time sheets will be submitted to the instructor to document the field work. Additionally, the seminar will focus on the interaction among teachers, students, parents, and the paraprofessional in today's school. Students will analyze theory and practice as it relates to educational paraprofessionals: working in inclusive settings, behavior guidance, roles and responsibilities, teamwork and effective communication and collaboration, resources including assistive technology, professionalism, and supporting students with low incidence disabilities.

EDUC 2228 Families, Communities & Schools 3 credits

This course is a study of parent and community involvement in education using historical, educational, psychological, ethnic-socio diversity, and sociological perspectives.

EDUC 2230 Children's Literature with Reading Approaches 3 credits

Prerequisite: ENGL 1101

This course is an introduction to children's literature with emphasis placed on selection and use of books and activities for children from infancy through age 12. Students will explore the various genres of children's literature with particular attention to award-winning authors and illustrators and their books. Students will be able to identify high quality children's literature in each genre and develop age-appropriate lesson plans. Students will also explore various early literacy instruction techniques and teaching reading through literature.

EDUC 2234 Technology in Education 3 credits

This course provides an introduction to integrating technology in the classroom. Topics include the Internet, productivity software applications for educators, integrating multimedia and education software

applications, and creating curriculum and web pages. This course is designed to meet the requirements of the International Society for Technology in Education NETS Standards for Teachers.

EDUC 2238 Young Adult Literature 3 credits

Prerequisite: EDUC 1102 and ENGL 1101

Students will learn what constitutes quality young adult literature and will be introduced to a wide range of young adult novels. Students will examine young adult literature through a literary context and develop age-appropriate lesson plans. This course does not satisfy the general education requirements in English and humanities. Students can not receive credit for both ENGL 2238 and EDUC 2238.

EDUC 2240 Early Childhood Practicum 2 credits

Corequisite: EDUC 2241

This course is designed to provide students with opportunities to plan, implement, and evaluate developmentally appropriate lessons and activities in a licensed inclusive early childhood setting. **Students will work on-site under the direct supervision of a qualified cooperating teacher for 16 hours per week for a total of 240 clock hours.** Students will be assigned two sites (120 hours each location) for the semester. Students will also be videotaped and critiqued while teaching young children.

EDUC 2241 Early Childhood Seminar 2 credits

Corequisite: EDUC 2240

This seminar accompanies EDUC 2240 and will enable students to discuss a variety of topics relevant to their student teaching. Topics may include but shall not be limited to behavior guidance, children with special needs, working with parents, professionalism, current teaching strategies, etc. Students will study the role of the teacher, the student teacher, and the children. Weekly time sheets and journal will be submitted. Regarding the portfolio, students will also be expected to create their resumes and provide additional documentation to demonstrate their professional development.

EDUC 2243 Individuals with Exceptionalities 3 credits

Prerequisites: EDUC 1101

An orientation of the history, etiology and educational programs for exceptional children with the following handicapping conditions: trainable mentally handicapped, educable mentally handicapped, learning disabled, behavioral disordered, emotionally disabled, auditory, visual, orthopedic, speech impaired, health impaired, and gifted. The course will trace PL 94-142 from inception, significance and influence. The student will observe a total of 4 hours in an approved classroom setting.

EDUC 2260 Teaching in a Diverse Society 3 credits

Prerequisite: EDUC 1101

This course is designed to prepare the prospective teacher to effectively teach the range of students found in the typical classroom. Students will become familiar with various individual differences that characterize today's school population including children with special needs, talented and gifted learners, culturally and linguistically diverse individuals, students with low-incidence disabilities, etc. Practical strategies for adapting instruction to meet the learning styles of all students in inclusive classrooms will be addressed. Ten hours of public school classroom observation in an approved diverse setting are also required.

ELECTRICAL ENGINEERING - EENG

EENG 1105 DC Circuits & Devices 3 credits

Prerequisite: MATH 1118 or equivalent

An examination of the behavior of passive devices in transient and steady state DC circuits. Topics include device construction and packaging ohmic and non-ohmic conduction, voltage, current, power and resistance calculations in series, parallel and series-parallel circuits. Laboratory consists of development of prototyping skills and verification of circuit operation.

EENG 1115 AC Circuits & Devices 3 credits

Prerequisite: EENG 1105 or equivalent

An examination of the frequency response of reactive circuits. Topics include AC voltage waveforms & frequency, current and power calculations in series, parallel and series-parallel circuits. Applications of resonance and filtering are discussed.

EENG 1150 Operating Systems 3 credits

This course is designed to introduce the student to various types of computer operating systems. It will familiarize the student with the basic commands and fundamental concepts needed to work in these systems. We will discuss single user, multitasking, and multi-user systems along with user interfaces. Students cannot receive credit for both CSCI 1150 and EENG 1150.

EENG 1185 Electrical Machinery 3 credits

Prerequisites: EENG 1115

An examination of the characteristics of power transmission and distribution equipment. DC, single phase, poly phase AC machinery are covered including servo machines. Transformers, transducers and industrial controls are also studied.

EENG 1199 Seminar 1-6 credits

This course will be a discussion of particular problems related to the student's chosen program and areas of interest.

EENG 2205 Digital Electronics 3 credits

Prerequisite: EENG 1105 corequisite equivalent

An examination of number systems and techniques of logical reduction. Pulse and logic circuits, counters, registers, logic families, integrated circuits and basic elements of digital design are discussed. Including DA & AD convertors microprocessor & microcontrollers.

EENG 2215 Analog Circuits & Devices 3 credits

Prerequisite: EENG 1115 or equivalent

An introduction to the characteristics, specifications, packaging, and applications of discrete devices and low scale integrated circuits.

EENG 2254 Computer Architecture & Design 4 credits

This is an introductory course into computer architecture. This class will assemble a single board computer with a lecture section before each section to describe how the section works. Use of Oscilloscope, Digital Logic probe and Millimeter are used to make measurements and troubleshoot each section.

Students who have completed CSCI 2245 may not receive credit for this course.

EENG 2255 Digital Communications 3 credits

Prerequisites: EENG 2205

An examination of various digital communications techniques. Topics covered will include modulation, sampling, coding and decoding, multiplexing, error detection and correction, modems, LANs, and WANs.

EENG 2268 Power Generation 3 credits

Prerequisite: EENG 1105

Co-requisite: EENG 1115

This course is designed to teach the aspects of power generation. It covers the different types of steam generation methods based on the various types of fuels used including coal, nuclear, hydro, fuel cell, solar, wind and new fuel technologies. It also includes an in-depth study of the associated equipment such as pumps, turbines, environmental and other associated systems.

EENG 2285 Manufacturing Control Systems 3 credits

Prerequisites: EENG 2205

This course introduces the use of programmable logic controllers in industry. Topics include ladder logic programming, sensors used in manufacturing control systems and applications of PID loops. Allen Bradley Controllers are the PLC used in this course. A laboratory complementing class work.

EENG 2299 Research Project 3 credits

Prerequisite: Sophomore standing in Electrical/Electronics Technology

An independent study resulting in a technical report,

research paper, project or a combination of these. Selection of the area of study is made in consultation with the instructor and must be approved by the instructor.

ENGINEERING DESIGN - ENDS

ENDS 1100 Introduction to Engineering 2 credits

This course introduces the student to the engineering profession and the variety of related jobs and careers. This course also includes the use of electronic calculators, personal computers, conversion of units, (English to metric, metric to English), problem solving techniques in groups and individual, scientific notation and decision making models.

ENDS 1110 Blueprint Reading 3 credits

Learn to read and use HVAC plans and blueprints like today's professionals, with a focus on air conditioning drawings and hands-on exercises. This course will help readers master the basics of blueprint reading and apply their new skills to work in the HVAC trade. This course has been updated to reflect the increasing use of computers to develop plans and prints, while still including all the critical areas of study, including: using the architect's and engineer's scale, creating and using working and construction drawings, freehand sketching and drafting with instruments, and more. The final section of this course goes beyond basic concepts, enabling students to gain valuable skills in reading and interpreting architectural, duct work, mechanical, electrical, and plumbing plans.

ENDS 1141 Engineering Drawing I 3 credits

This is a beginning drawing course. Students are introduced to fundamental knowledge and skills such as line work, lettering, scale use, sketching, multi-view drawings, sectional views, with the basics of manual drafting techniques and the use of drafting equipment.

ENDS 1142 Engineering Drawing II 3 credits

Students are introduced to a continuation of technical drawing fundamentals. Auxiliary views, descriptive geometry, patterns and developments, and dimensioning and notation are emphasized. Welding drawings are covered. Experience with view visualization will prepare the student for CAD fundamentals.

ENDS 1143 Introduction to Product Design 3 credits

Prerequisites: ENDS 1142

An introductory course in the application of the engineering design process to solving product design problems. The formal design solution is presented in the form of engineering working drawings, bill of material, estimates of time, material, and labor costs, with other reports as required.

ENDS 1144 Electrical Drafting 3 credits

Prerequisites: ENDS 1142 or equivalent

This course is a study of electrical and electronic diagrams. Students learn electronic symbols and the use of these symbols to draft and design schematic diagrams, micro-electronic diagrams, printed circuit diagrams, electrical power systems, and electrical drawings for architectural plans.

ENDS 1145 Computer Applications in Engineering 3 credits

An introductory course where students learn areas in engineering in which computers are commonly used. Computer hardware, software and programming are introduced. Topics include reporting, calculation, drafting, analysis, computer aided design, numerical control, rapid prototyping and direct material deposition. The student will gain hand-on experience in these areas.

ENDS 1180 Co-op I Engineering 1-3 credits

Prerequisites: Completion of 15 program hours

Career-related activities encountered in the student's area of specialization offered through an individualized agreement, paid or unpaid, among the College, employer, and student. Under the supervision of the College and the employer, the student combines classroom learning with work experience. Includes and orientation to co-op component.

ENDS 1199 Seminar 1-6 credits

This course will be a discussion of particular problems related to chosen program and areas of interest.

ENDS 2201 Engineering Mechanics (Statics) 3 credits

Prerequisites: MATH 1120 & PHYS 1117

In this course the student studies the principles of forces, as applied to trusses, frames, beams, walls, and machine parts. The student will gain experience by solving problems graphically and mathematically. The course covers the study of vectors, forces, resultants and equilibrium.

ENDS 2202 Dynamics 3 credits

Prerequisites: ENDS 2201

In this course the student studies the principles of dynamics as applied to linear motion and angular motion. The course covers kinematics and kinetics of rectilinear motion, curvilinear motion and kinematics and kinetics of rotation.

ENDS 2203 Strength of Materials 3 credits

Prerequisites: ENDS 2201

An introductory course in mechanics of materials, analysis and design of members subjected to various combinations of loading, stress and strain, beams, columns, members in torsion. In-class experiments

investigate the response of deformable bodies to applied loads.

ENDS 2204 Mechanisms 3 credits

Prerequisites: ENDS 2201

A study of mechanical components including: gear trains; belt, chain and disk drives; cams, levers, linkage mechanisms, and Geneva mechanisms. Laboratory work complementing class work.

ENDS 2205 Hydraulics & Pneumatics 3 credits

Prerequisites: PHYS 1117 and MATH 1120

An introductory course to impart basic knowledge of hydraulic and pneumatic concepts, components and systems for power transmission and control where laboratory work is performed using industrial components and circuits.

ENDS 2219 Tool Design and Manufacturing 3 credits

Prerequisites: ENDS 1142 and MATH 1120

An introductory course in designing of manufacturing tooling including broaches, lathe and mill tools; piercing, blanking, bending, and drawing dies; the economics of tool design; cutting and forming; and the design of jigs and fixture devices used to locate and secure the work-piece in manufacturing. Principles of manufacturing and properties of materials are utilized. The selection of cutting tools, calculating horsepower requirements, and cutting feeds and speeds are introduced.

ENDS 2221 Machine Design 3 credits

Prerequisites: ENDS 2201

This course covers the analysis and design of machine components and assemblies such as couplings, bearings, springs, frames, gears, belts, etc. utilizing the principles of mechanics, kinematics, drafting and strength of materials.

ENDS 2230 Computer Graphics I 3 credits

Prerequisites: ENDS 1142

An introductory course in computer assisted design techniques. The student will gain experience by solving problems in drafting utilizing an interactive CAD system. Continuing through the course, students will extend their CAD competency by solving sophisticated drafting problems utilizing an interactive CAD system, applications, course demonstration and lecture, together with a hands-on component to complete 3-D modeling exercises.

ENDS 2231 Computer Graphics II 3 credits

Prerequisite: ENDS 2230

An advanced course in computer assisted design techniques. The student will gain experience by solving problems in drafting and utilizing an interactive CAD

system. Continuing through the course, students will extend their CAD competency by solving sophisticated drafting problems utilizing an interactive CAD system, applications, and course lecture, together with a hands-on component to complete 2-D drawings, solve problems, and 3-D solid modeling exercises more quickly with increased accuracy and precision.

ENDS 2233 Computer Aided Manufacturing 3 credits

Prerequisites: ENDS 2230 and MATH 1120

This course introduces automation and computer-integrated manufacturing with manual part programming for numerical control machines. History of CNC, coding, punch tape, BCD, word address programming and computer numerical control following the recommendations of the Electronic Industries Association (EIA) and Aerospace Industries Association (AIA) with hands-on experience. The process and requirements for rapid-prototyping and direct material deposition are introduced and reinforced with hands-on experience.

ENDS 2235 Technical Drawing 3 credits

Prerequisite: ENDS 1142 or equivalent

Students learn to draft illustrations of machine parts, exploded pictorial assemblies, parts catalogs, plant layouts, and elevations. The use of color and shading are introduced. Pictorial drawings combine elements of both technical and artistic drawing to convey all the information necessary to be used as guides by people involved in manufacturing, maintenance, or sales where a complex part or process would be difficult to visualize when only orthographic views are given. Technical illustration is an important communication skill.

ENDS 2236 Architectural Drafting and Design 3 credits

Prerequisites: ENDS 1142

An introductory course where students learn design of residential buildings. The course covers elevations, foundations, and interior drawings. This course also involves the study of architectural symbols, nomenclature, detailing, sectioning, dimensioning, and the use of architectural catalogs.

ENDS 2260 Surveying 3 credits

Prerequisite: MATH 1120

An introductory course to impart basic knowledge of surveying plus training in the use of traditional surveying equipment.

ENDS 2261 Manufacturing Materials and Processes 3 credits

Prerequisites: MATH 1120 and PHYS 1117

This course will acquaint the technician with the nature, properties, performance, characteristics, manufacturing processes, and practical uses of various engineering

materials. Materials such as ferrous and nonferrous metals as well as polymers, ceramics, and composites will be covered. Both primary and secondary processes will be covered in this course.

ENDS 2270 Computer Applications in Engineering II 3 credits

Prerequisite: ENDS 1145

This course gives a working knowledge of a high level computer language. The student will write programs to solve specific problems using logical structures, industry standardize practices and standard Visual C++ language. Topics covered will include programming techniques, calculations, methods and conversions, loop structures, search and arrays, conditional branching, file creation and maintenance. Application will include Visual C++ language used programming Industrial applications using an integrated controller.

ENDS 2280 Co-op II - Engineering 1-3 credits

Prerequisite: ENDS 1180

Career-related activities encountered in the student's area of specialization offered through an individualized agreement, paid or unpaid, among the College, employer, and student. Under the supervision of the College and the employer, the student combines classroom learning with work experience. Includes an orientation to co-op component.

ENDS 2299 Design Research Project 3 credits

Prerequisite: sophomore standing in Computer Assisted Design program

A capstone course of independent study resulting in a technical report, research paper, project, or a combination of these. Selection of the area of study is made in consultation with, and must be approved by, the instructor.

ENGLISH - ENGL

ENGL 0097 Preparation I for College Composition 6 credits

Prerequisite: Entry to this course is made by Southern State placement procedures only.

This course focuses on writing effective paragraphs and writing multi-paragraph assignments and essays. Students will study the elements of paragraphs and essays including topic sentences, thesis statements, sentence clarity, effective transitions and paragraph development and cohesiveness. Students will be taught the concept of writing as a process and practice writing in various contexts. A grammar review with emphasis on mechanics and punctuation, sentence grammar and basic grammar will be provided. Students will work on improving their reading comprehension and critical reading skills. Students will receive college credit for this course; however, this course may not be applied as credit

towards a degree. A grade of C or above and successful completion of an exit exam is required to advance to ENGL 1101.

ENGL 0099 Preparation II for College Composition 3 credits

Prerequisite: College placement - Accuplacer writing score of 4 or above.

This course prepares students for college composition by offering a basic introduction to the various aspects of writing and developmental reading comprehension. This introduction includes a thorough review in rules of basic grammar, sentence grammar, punctuation, and usage. Coursework presents writing as a process and provides instruction and practice in prewriting, drafting, revising, and editing strategies. This course may not be used to satisfy English requirements in any program and may not be used to satisfy elective requirements. A grade of C or higher and successful completion of an exit exam is required to pass this course.

ENGL 1101 English Composition I 3 credits

Prerequisites: One of the following: Accuplacer Writing score of 5 or above, ACT English score of 18 or above, SAT Verbal score of 500 or above, or successful completion of ENGL 0097 or ENGL 0099 with a “C” or better

This course provides an introduction to expository writing, emphasizing the clear and concise expression of ideas in a variety of rhetorical modes.

ENGL 1102 English Composition II 3 credits

Prerequisites: Completion of ENGL 1101 with a “C” or better

This course advances those skills acquired in English 1101, continuing to engage students in the clear and concise expression of ideas while emphasizing argumentation and research writing. MLA documentation is required.

ENGL 1199 Seminar 1-6 credits

This course will be a discussion of particular problems related to the students chosen program and areas of interest.

ENGL 2201 Introduction to Literature 3 credits

Prerequisites: ENGL 1101
This course offers an introduction to the three major literary genres: fiction, poetry, and drama. Students will read short stories, poems, and plays to gain an understanding of literary forms and to learn techniques for analyzing and interpreting works of literature. An emphasis will also be placed on how literature explores and lends insight into the human experience.

ENGL 2202 The Great American Novel (1925-present) 3 credits

Prerequisites: ENGL 1101 or ENGL 101

This course is a survey of American Literature from 1925 to present. The primary focus of this class is reading and discussing “The Great American Novel,” which will allow students to understand the literary value, historical significance, and cultural influence of works that have vied for this title. Students will address both the influence these novels have had on American culture, and the influence American culture had on the creation of these novels. In addition to readings, discussions, and exams, students will write two research papers and give two presentations that demonstrate their ability to explain the importance of specific works both verbally and in writing.

ENGL 2205 Technical Report Writing 3 credits

Prerequisites: Successful completion of ENGL 1101 with a “C” or better.

This course introduces students to the discipline of technical communication. Preparation of visuals to supplement text, descriptions of mechanisms, explanations of processes, and writing reports are the major topics included. This course is designed for students enrolled in technical degree programs and does not fulfill a humanities requirement.

ENGL 2207 Women’s Literature 3 credits

Prerequisites: Completion of ENGL 1101 with a C or better.

Introduction to works by women writing in English, and to the literary and gender issues they raise. The structure of the course combines historic and analytical readings of the works that span writings from the Middle Ages to the contemporary era. The course also examines the increasing influence on the literature of Western culture brought to bear by female writers.

ENGL 2217 Readings in Early British Literature 3 credits

Prerequisites: ENGL 1101

This is a survey course that examines representative works of literature from the Anglo-Saxon period to the late 18th century. A variety of authors, genres, and trends will be studied.

ENGL 2218 Readings in Later British Literature 3 credits

Prerequisites: ENGL 1101

This is a survey course that examines representative works of literature from the late 18th century to the present. A variety of authors, genres, and trends will be studied.

ENGL 2219 Creative Writing (Fiction & Poetry) 3 credits

Prerequisites: ENGL 1101

This course is an introduction to creative writing, focusing on both fiction and poetry. Discussions of fiction writing will emphasize the technical elements of fiction, assigned readings, and works written by class members. Discussions of poetry will emphasize the technical elements of poetry, assigned readings, and works written by class members.

ENGL 2230 American Literature to 1865 3 credits

Prerequisites: ENGL 1101

This course explores major works in American literature through the mid-19th century. Readings are drawn from the Puritan Age, Colonial Period, Romantic Age, and the Age of Realism.

ENGL 2235 American Literature after 1865 3 credits

Prerequisites: ENGL 1101

This course explores major works and literary trends in American literature from 1865 to the present.

ENGL 2236 Contemporary World Literature: The Novel (1945-present) 3 credits

Prerequisites: ENGL 1101 or ENGL 101

This course is a survey of world literature from post-war to present that focuses on novels and novellas. Student will read and discuss great works from around the world, effectively establishing a global view of how literature has evolved since the Second World War. Areas covered include Africa, Asia, The Caribbean, Europe, The Far East, The Middle East, North America, and South America. In addition to readings, discussions, and exams, students will write two research papers and give two presentations that demonstrate their ability to explain the importance of specific works both verbally and in writing.

ENGL 2238 Young Adult Literature 3 credits

Prerequisites: ENGL 1101, EDUC 1102

Students will learn what constitutes quality young adult literature and will be introduced to a wide range of young adult novels and authors. Students will examine young adult literature through a literary context.

ENGL 2240 Introduction to Film 3 credits

Prerequisites: ENGL 1101

This course is designed to introduce students to the vocabulary and artistic elements of film. It will focus on the elements of cinematic language (including narrative, mise-en-scene, cinematography, acting, editing, and sound). Students will view films to gain an understanding of cinematic form and learn techniques for analyzing and interpreting film.

ENGL 2241 Film History 3 credits

Prerequisite: ENGL 1101

This course is a survey of the major developments, movements, and critical approaches in film, with particular emphasis on narrative film. The course emphasizes an understanding of the historical, cultural, and aesthetic context that influence film and develops the student's understanding of a film's narrative and visual structure. Screenings of films required.

ENGL 2246 Classical & World Mythology 3 credits

Prerequisite: ENGL 1101

This course is a survey of classical and world mythology that examines popular works from ancient Greece and Rome, as well as Celtic, Nordic, and Eastern cultures. The primary focus of this course is reading and discussing myths, which will allow students to understand the literary value, historical significance, and ongoing influence of classical and world mythology. In addition to readings and discussions, students will write two research papers and give two presentations that demonstrate their ability to explain the influence of specific works both verbally and in writing.

ENGL 2247 Critical and Cultural Approaches to the Fairytale 3 credits

Prerequisite: ENGL 1101

This course will examine the cultural history of an examine critical approaches to fairy tales, with particular attention paid to the fairy tales of Germany and the Brothers Grimm. The course examines the cultural significance of the original texts, works to develop critical responses to the texts, and actively examines the connections between the original tales and the forms of fairytales being told and created today.

ENTREPRENEURSHIP - ENTR

ENTR 1102 Opportunity Analysis 3 credits

An assessment of current economic, social and political climate for small businesses. The student will understand demographic, technological, and social changes which create opportunities for small business ventures.

ENTR 1108 Effective Small Business Management 3 credits

This course covers the structure and functions of starting and operating a small business, cost benefit analysis, competitive advantage, opportunity recognition and keeping records.

ENTR 1110 Fast Trac Business Plan 3 credits

The student should learn fundamentals of evaluating a business, writing a sound business plan, assessing strengths and weaknesses of business, prepare marketing plan, identify and evaluate available funding resources, and preparation of financial projects.

ENTR 1120 Innovation & Creativity 3 credits

This course introduces the student to understanding creative abilities, recognizing their creative abilities, change their way of viewing creativity, understanding who they are as a creative person, promoting innovation in themselves and others and demonstrating productive thinking. Upon completion the student should have a better understanding of their creative abilities, change the way they think about intelligence, education and human resources, understand creativity and the concept that it is a function of intelligence and understand that "Imagination is the beginning of creation" (George Bernard Shaw).

ENTR 1150 Entrepreneurship: Managing Small Business 3 credits

Prerequisite: ACCT 1101 or ACCT 1104 or ACCT 104

This course introduces students to the opportunities and challenges associated with the creation and management of entrepreneurial and small organizations. This course discusses innovative and contemporary approaches in addressing areas such as: starting, acquiring a business, succeeding in business, and franchising a small business venture. The course also provides the foundation for small business and an overview of business concepts, including topics such as: theories of entrepreneurship, types and characteristics of entrepreneurship, the business life cycle, entrepreneurial economics, accounting and financial management, legal issues, marketing research and planning, human resource management, ethics and social responsibility, product and service research development and acquisition, and the use of technology.

ENTR 2201 Funding Acquisition for Entrepreneurs 3 credits

The student will understand and demonstrate an understanding of acquiring funding for a business venture. They will also understand the impact of funding sources. The importance of the financial health of a business will also be examined. The student will also develop and present a funding proposal.

ENTR 2280 Consumer Behavior 3 credits

Upon completion of this course the student should develop the knowledge and skills necessary to perform useful consumer analysis in developing marketing strategies. The student should understand why people buy things.

ENTR 2295 Entrepreneurship Internship 3 credits

Prerequisite: Students must have completed a minimum of 12 semester hours of Entrepreneurship (ENTR) courses with a grade of "C" or better and have completed at least 30 semester hours

toward the Entrepreneurship Program with an overall grade average of "C" or better.

The student should be able to apply classroom knowledge to an actual work situation. Work experience should be obtained in an approved work training location. A minimum of 210 hours of work/training (14 hours per week) is required with one hour of classroom participation (per week). This course is required for the Associate of Applied Business in Entrepreneurship.

FINE ART - FNAR**FNAR 1104 Introduction to the Arts** 3 credits

Creators of art, regardless of the chosen form share many concepts. In this course, the student will explore these similarities and experience the creative process in each of the artistic disciplines thereby enhancing personal interest in and understanding of the arts.

FNAR 1105 Basic Drawing I 3 credits

An intensive studio drawing course on the observation and interpretation of form with concern for space, line, volume, texture, and composition. Varied stylistic approaches and subject matter will be studied in the pencil and charcoal mediums.

FNAR 1106 Basic Drawing II 3 credits

Prerequisite: FNAR 1105

An intensive studio drawing course on the observation and interpretation of form with concern for space, line, volume, texture, and composition. Varied stylistic approaches and subject matter will be studied in the pencil and charcoal mediums. This course is a continuation of FNAR 1105.

FNAR 1111 History of Art I 3 credits

An introduction to the enjoyment and understanding of the history of sculpture, painting, and architecture from prehistory through the Middle Ages.

FNAR 1112 History of Art II 3 credits

An introduction to the enjoyment and understanding of the history of sculpture, painting, and architecture from the Renaissance to present times.

FNAR 1116 Music Appreciation I 3 credits

Music Appreciation I is a survey of musical styles from the Middle Ages to the early 18th century. It includes a review of music reading and basic music theory and covers the Medieval, Renaissance, Baroque, and Early Classical Periods in music. No previous knowledge of music or musical experience is required.

FNAR 1117 Music Appreciation II 3 credits

This course is a survey of music from the 18th century to the present. It includes the Classical, Romantic, and Impressionistic periods as well as musical styles from the 20th and 21st centuries.

FNAR 1120 Water Media Painting I 3 credits
 An intensive study of water media painting with an emphasis placed on the study of materials, technical applications, composition, and color theory. The works of the Old Masters and accomplished contemporary artists will be studied to support the learning process. This course may be taken for 6 credit hours.

FNAR 1121 Water Media Painting II 3 credits
Prerequisites: FNAR 1120
 A continuation of FNAR 1120 with an emphasis on composition, value management, and sketching as a preparatory step in the painting process.

FNAR 1130 Oil/Acrylic Painting 3 credits
 An intensive study of the oil or Acrylic painting media with emphasis placed on the academic study of materials, technical applications, composition and color theory. The works of the Old Masters and accomplished contemporary artists will be studied to support the learning process.

FNAR 1131 Oil/Acrylic Painting II 3 credits
Prerequisites: FNAR 1130
 A continuation of FNAR 1130 with an emphasis on composition, value management and sketching as a preparatory step in the painting process. The works of the Old Masters and contemporary artists will be studied to support the learning process.

FNAR 1140 Introduction to the Craft of Stained Glass I 3 credits
 A course designed to teach the basic construction techniques involved in the making of stained glass art. The student will study construction techniques of the Old Masters and contemporary artists to assist the learning process.

FNAR 1141 Introduction to the Craft of Stained Glass II 3 credits
Prerequisites: FNAR 1140
 This course is a continuation of FNAR 1140 designed to teach the basic construction techniques involved in the making of stained glass art. The student will place more emphasis on color and design of the finished project. A three dimensional project will be required in this section. The student will study the construction techniques of the Old Masters and contemporary artists to assist the learning process.

FNAR 1146 Fused Glass Jewelry & Decor 3 credits
 A basic course designed to teach many the beginning concepts of cutting glass, fusing glass in a kiln and wire wrapping to turn pieces into jewelry, decor and art.

FNAR 1147 Fused Glass/Metal Clay Jewelry 3 credits
 This course continues FNAR 1146 and introduces working with metal clay.

FNAR 1152 Concert Choir 2 credits
 Concert Choir is a choral ensemble consisting of both Southern State students and community members. The ensemble performs music in a variety of styles. No audition is required for the Concert Choir.

FNAR 1180 Concert Band 2 credits
 Concert Band is a wind ensemble consisting of both Southern State students and community members. The ensemble performs a variety of music ranging from traditional symphonic band repertoire to popular music and jazz. No audition is required.

FNAR 2211 Figure Drawing 3 credits
Prerequisite: FNAR 1105 and FNAR 1106
 An intensive studio figure-drawing course that emphasizes the skeletal-muscular structure, external contour, and proportion of the human form. Studies and drawings from the live model, skeleton, cast, anatomical diagrams, and examples of old masters' drawings will aid the learning process. Development of composition and the discipline of seeing will receive special consideration. This course will explore a variety of media and art materials.

FNAR 2220 Advanced Water Media Painting 3 credits
Prerequisites: FNAR 1120 & FNAR 1121
 An intensive and personalized course on painting problems that builds on accumulated knowledge from previous painting experiences to develop an individual creative painting style. A variety of subject matter will be considered. This course is a continuation of FNAR 1121.

FNAR 2230 Advanced Oil Painting 3 credits
Prerequisites: FNAR 1130 & FNAR 1131
 This is an intense and personalized course in advanced painting problems. The use of accumulated knowledge from previous painting experiences will apply to assist in the development of a creative and original painting style. A variety of subject matter will apply.

FOREIGN LANGUAGE - FLNG

FLNG 1107 Elementary Spanish I 3 credits
 In this course, the student is introduced to the Spanish language and Hispanic culture. Basic skills in speaking, listening, reading and writing are developed. Cultural readings and videos are included in each lesson, giving the student additional opportunity to utilize the target vocabulary and grammar in classroom conversation.

It requires that students with less than two years of high school Spanish begin at this level. Students who have completed two years of high school Spanish at least five years ago must also enroll at this level.

FLNG 1108 Elementary Spanish II 3 credits

Prerequisite: FLNG 1107

This course builds upon the foundation laid in FLNG 1107 and uses the same text. It is the second phase in the two-course sequence which comprises elementary Spanish at Southern State. Skills in speaking, listening, reading and writing in Spanish are further developed in this course. Cultural readings and videos are included in each lesson, giving the student additional opportunity to utilize targeted vocabulary and grammar in classroom conversation. Students who have completed two years of high school Spanish within the last four years may enroll at this level.

FLNG 1120 Beginning American Sign Language I 4 credits

Everyday communication is the centerpiece of every lesson. Topics revolve around sharing information about our environment and us. Grammar is introduced in context with an emphasis on developing question and answering skills. Students learn conversational strategies to help you maintain a conversation. Interaction activities allow students to rehearse what they have learned.

FLNG 1121 Beginning American Sign Language II 4 credits

Prerequisite: Successful completion of Beginning American Sign Language I

Students continue to build on skills learned in Beginning American Sign Language I: grammar, conversational strategies and cultural information. In addition, students will add to their knowledge several kinds of lessons: functional (conversational or narrative), skill building, comprehension, cultural and review. The functional lessons introduce vocabulary and key grammar structures through the use of key dialogues or narratives. Skill building lessons focus on practicing detailed language features that support students' general ASL production, such as various number types, expanded finger spelling practice, space and semantic use of agreement or spatial verbs and use of negation signs. The comprehension lessons use stories to expand students' skills to process and figure meanings from larger chunks of signed information. The culture lessons focus on behaviors and knowledge that enable students to act in appropriate linguistic and social ways, and to gain more cultural insight on the Deaf community.

FLNG 2207 Intermediate Spanish I 3 credits

Prerequisite: FLNG 1108

This course is a four-course sequence which completes the foreign language requirement. Skills in speaking, listening, reading and writing are further developed in this course. The intermediate level places special emphasis on classroom discussion and on compositions of greater length. Cultural material introduced serves a dual purpose. Authentic short films, magazine articles, short stories and poems take the student to a deeper level of cultural understanding. These resources provide ample stimulus for discussion and composition, allowing the student to utilize new and acquired vocabulary and grammar structures.

Students who have completed four years of high school Spanish within the last four years may enroll at this level.

FLNG 2208 Intermediate Spanish II 3 credits

Prerequisite: FLNG 2207

This course is the final course in the four-course sequence which completes the foreign language requirement. Skills in speaking, listening, reading and writing are further developed in this course. The intermediate level places special emphasis on classroom discussion and on compositions of greater length. Cultural material introduced serves a dual purpose. Authentic short films, magazine articles, short stories and poems take the student to a deeper level of cultural understanding. These resources provide ample stimulus for discussion and composition, allowing the student to utilize new and acquired vocabulary and grammar structures.

FLNG 2220 Intermediate American Sign Language I 4 credits

Prerequisite: Successful completion of Beginning American Sign Language II

Intermediate American Sign Language I has been designed to build upon the student's prior knowledge and experiences from Beginning American Sign Language I & II. This course focuses on building narrative skills and developing real-world conversational skills used in everyday discussions. Students will continue to acquire cultural information through immersion in the Deaf Community and through the stories presented in the text and live in class. Students will gain the skills needed to express ideas and concepts and illustrate how things work using American Sign Language.

FLNG 2221 Advanced American Sign Language 3 credits

Prerequisite: FLNG 2220

This course is designed to build upon the student's prior knowledge and experience of American Sign Language (ASL). Students will be exposed to cultural interactions and stories from their text to bring them to a higher level of fluency in ASL.

HEALTH, PHYSICAL EDUCATION AND RECREATION - HPER

HPER 1101 Introduction to Sport & Kinesiology 3 credits

Study of physical education, exercise science, sport, and other related fields as academic disciplines and professions. Examination of history, philosophies, concepts, issues, and trends of physical education and sport.

HPER 1102 Introduction to Athletic Training 3 credits

This course is an introduction to the fundamental knowledge and background in athletic training. It is designed to take a scientific, evidence based approach to provide a clinical background in athletic training.

HPER 1106 Principles of Weight Training 1 credit

This course focuses on various weight training programs to develop muscular endurance and muscular strength. In addition, students will develop muscular strength and aerobic conditioning through a circuit based weight training program.

HPER 1108 Introduction to Volleyball 1 credit

An introduction to basic skills including various types of serves, attacks, sets, and defensive maneuvers. Study of conditioning, team strategies, offensive and defensive alignments, history, and rules of volleyball.

HPER 1115 Introduction to Basketball 1 credit

Introduction to basic skills, tactics and strategies of basketball, including: dribbling, passing, shooting, rebounding, ball handling, and defense.

HPER 1120 Tae Kwon Do 1–3 credits

An introduction to the martial art Tae Kwon Do. Students may take this course up to three times in order to obtain higher ranking belts.

HPER 1127 Principles of Cardio Fitness 1 credit

An introduction to the basic principles of cardiorespiratory assessment and prescription. Wellness topics include basic nutrition for fitness, weight management theories and principles, flexibility for wellness, and injury prevention.

HPER 1140 Archery 1 credit

Instruction and practice stressing skill development, safety and the value of archery as a lifetime leisure activity.

HPER 1161 First Aid 2 credits

This course presents the theory and skills necessary to provide first aid care for patients of all ages. With

successful completion of the course, the student will receive a course completion card in first aid and adult, child, and infant layperson CPR.

HPER 1165 CPR & Airway Management for Healthcare Providers 1 credit

This course is designed to teach the skills of Cardiopulmonary Resuscitation (CPR) and airway management for victims of all ages. Skills include airway management using simple airway adjuncts, laryngeal mask airway, esophageal-tracheal combitube, and introduction to endotracheal tubes. Additional skills include ventilation with a barrier device and a bag-mask device, chest compression, use of an automated external defibrillator (AED), and relief of foreign body airway obstruction (FBAO). It is intended for participants who will provide health care to patients in any setting. Participants who successfully complete the course, including the written examination and skills demonstrations, will receive a course completion card.

HPER 1195 Fitness & Wellness for Life 2 credits

An orientation to concepts of fitness for life with emphasis on development of personal lifetime physical activity, nutrition, weight management, stress management, and overall healthy lifestyle.

HPER 2203 Introduction to Personal Training 3 credits

Corequisite: HPER 2207

This course is designed to give students the knowledge and understanding necessary to prepare for the ACE Personal Trainer Certification Exam and become effective personal trainers. This course presents the ACE Integrated Fitness Training™ (ACE IFT™) Model as a comprehensive system for designing individualized programs based on each client's unique health, fitness, and goals. The information covered by this course and the ACE IFT™ Model will help students learn how to facilitate rapport, adherence, self-efficacy and behavior change in clients, as well as design programs that help clients to improve posture, movement, flexibility, balance, core function, cardiorespiratory fitness, and muscular endurance and strength.

HPER 2207 Essentials of Exercise Science for Fitness Professionals 3 credits

Corequisite: HPER 2203

This course is designed to provide theoretical knowledge in preparation for a national certification exam in personal training. Topics include foundational learning in anatomy, kinesiology, nutrition, physiology of training, resistance training, and the ACE IFT™ Model.

HPER 2217 Yoga 1 credit

An introduction to the nature and principles of yoga.

Students will gain knowledge of the benefits of performing yoga and equipment needed while participating in a yoga program. Course focuses on developing postural alignment in order for students to gain improved strength, endurance, flexibility, balance, and stress reduction.

HPER 2234 Personal Health *3 credits*

Promote an appreciation for healthful living practices of the individual and group to promote positive attitudes. Topics include physical health and fitness, emotional health, nutrition, alcohol and drugs, environmental health, aging, safety and first aid.

HPER 2236 Individual and Dual Fitness Sports *1 credit*

A survey of selected individual and dual fitness sports and activities will be presented. This is an activity course, in which students receive an overview of history, rules, strategy and skill practice in all sports covered.

HPER 2250 Aerobics *1 credit*

This course will introduce students to the fundamentals of aerobics. Students will participate in and maintain physical fitness through physical exercise to musical accompaniment. This course covers many topics including personal safety and preparation, personal activity modifications, and elements of rhythmic aerobic routines.

HPER 2251 Advanced Group Exercise *1 credit*

This course is a higher intensity, higher impact aerobic exercise to music in a group setting. There is emphasis on improving cardiorespiratory endurance, flexibility, and muscular endurance.

HPER 2252 Water Aerobics *1 credit*

This course is a group exercise course that extends the participants' understanding of physical fitness through water aerobics to musical accompaniment. This course provides students with non-impact exercise. There will be variation of movement and tempo in the exercise provided.

HPER 2261 Advanced Cardiac Life Support for Novice Providers *2 credits*

Prerequisites: EMTP 2220 or NURS 2205, NURS 2210, NURS 2220 or RESP 2205

This course is designed to provide advanced cardiac life support instruction to novice providers who will care for patients with cardiovascular conditions in a variety of healthcare settings. It includes comprehensive review and integration of knowledge and skills in ECG rhythm interpretation, pharmacology, airway and ventilation management, and CPR/AED. In addition, management of cardiopulmonary arrest and other

cardiovascular emergencies will be explored. Students are required to have a valid BLS for Healthcare Providers course completion card from the American Heart Association prior to beginning the class. Participants who successfully complete the course, including the written examination and skills demonstration, will receive a course completion card.

HPER 2299 Physical Education Internship *2–6 credits*

Prerequisites: complete at least 20 semester or 30 quarter hours (or the equivalent) and have a minimum GPA of 2.0

A supervised on or off-campus work experience applying knowledge and skills in a physical education, fitness, or sport-related profession. The student should work a minimum of 15 hours of work per week during the academic term for three credits.

HISTORY - HIST

HIST 1110 American History I *3 credits*

This course is a survey of the United States from the pre-Colombian period to 1877. The course will introduce students to the major political, social, economic, religious, cultural, intellectual, and technological developments in American history through reconstruction and the post-Civil War era. Topics will include, but are not limited to: pre-Colombian civilization, European exploration and conquest of the New World, development of European colonies, the colonial era, the American Revolution, the Constitution, economic changes, early industrialization and the formation of political parties. The institution of slavery will be closely examined, as will the concept of Manifest Destiny and the demise of Native American tribal life. The significant causes and events leading to the American Civil War will be discussed as will the military history of the war and reconstruction. The administrations of Jefferson, Jackson, Polk, and Lincoln will also be examined in detail.

HIST 1111 American History II *3 credits*

This course is a survey of the history of the United States from 1877 to the present day. The course will introduce students to the major political, social, economic, religious, cultural, intellectual, and technological developments in American history from the end of reconstruction to the post-modern era. Topics will include, but are not limited to: Gilded Age politics, late 19th and 20th century industrialization, economic changes, immigration, Progressivism, American Imperialism, World War one, cultural changes in the 1920's, and The Great Depression. The latter portion of the semester will focus on the events leading to World War II, the military history of the war, the Cold War, the Civil Rights Movement, social change in the 1950's and

1960's, the Vietnam War, and the post–Cold War era up to the presidential election of 2008.

HIST 1121 Modern East Asia 3 credits

Modern East Asia will provide students with a foundation in early modern to modern history of China, Korea, Japan and Vietnam. Topics for the course will include but are not limited to the early modern/late traditional era including European and American contact with Asia, the end of the Tokugawa period in Japan, the Meiji Reformation, the decline and partition of China, Industrialization and Imperialism through World War II, Communism in China, the Korean Conflict, Indo–China through the Vietnam War and an examination of the successor states in Modern East Asia.

HIST 1130 African American History 3 credits

This course will examine the major concepts/events, and their interconnections, that shaped African American History (within US History itself) and analyze their impact on African American society today. African American History is a course studying the experiences, lives, and contributions of African Americans in American history from European arrival in the Americas to the present.

HIST 1140 American Women's History 3 credits

American Women's History is a survey course studying the experiences, lives, and contributions of women in American history from the colonial period to the present. This course traces the changing roles of women throughout history as well as their experiences on racial, ethnic, class, and political basis. The problems and solutions women have faced, along with their many achievements, are discussed with an emphasis on understanding the important roles women have played in American history.

HIST 1151 Introduction to Western Civilization I 3 credits

This course is a survey of Western Civilization from prehistory to 1700. This course will examine major developments in the political, social, economic, religious, cultural, intellectual, and technological life of Western Civilization from the Paleolithic Age to the 17th century. The course will begin with an examination of the earliest evidence of human social existence, then investigate the emergence of the early civilizations of Mesopotamia, Egypt, Assyria, and Persia. The course will then trace the development of the Hebrew, Greek, and Roman civilizations and analyze the impact that Judaic and Greco–Roman principles have had upon the modern world. The course will then examine the collapse of the Roman Empire, the "Dark Ages", and the reemergence of Western society in the High Middle Ages, the Renaissance, the Reformation, religious warfare, and the Scientific Revolution of the 16th and 17th

centuries, and concluding with the "Age of Discovery."

HIST 1152 Introduction to Western Civilization II 3 credits

This course is a survey of Western Civilization from the 18th century to the present day. This course will examine major developments in the political, social, economic, religious, cultural, intellectual, and technological life of Western Civilization from The Enlightenment to the post–modern era. The course will also examine the economic and political revolutions of the 18th and 19th centuries, the French Revolution and the Napoleonic Era, the growth of new political ideologies (socialism, conservatism, nationalism, and liberalism), the unification of Italy and Germany and Imperialism and Colonialism. Included in the study of the 20th century will be World War I and its political and economic aftermath, the Russian Revolution, the rise of fascism, the Great Depression, the causes of World War II and the military history of the war, The Cold War, and the Post–Modern era.

HIST 1199 Seminar 1-6 credits

This course will be a discussion of particular problems related to the student's chosen program and areas of interest.

HUMAN AND SOCIAL SERVICES - HSSR

HSSR 1101 Introduction to Human & Social Services 3 credits

In this course, students are acquainted with the fields of human services, counseling, case management, and other mental health-related fields. Explores etiology of social problems among the general population, minorities, and out-groups; the history and development of mental health services; legal and ethical issues; and various settings in which services are provided. Goals of the human services system and the role of the social work assistant will be included.

HSSR 1105 Survey of Substance Abuse 3 credits

This course explores chemical dependency issues from a historical, cultural, biological, and legal perspective. Major topics include recognizing signs and symptoms of substance abuse, prevention of substance abuse, and differences in helping strategies with substance abusers, pharmacology, and psychopharmacology. *This course meets the required hours for the student's CDCA, as listed by the Ohio Chemical Dependency Professionals Board.*

HSSR 1120 Human Services Methods & Ethical Procedures 3 credits

This course provides a framework of human services practice meant to prepare students for their actual experience in a human services agency. Ethical and legal

issues related to interventions with individuals, groups, organizations, and communities in generalist practice and chemical dependency are emphasized. Seminar format provides for discussion and integration of experiences with academic courses. Creative problem solving and human services values are featured. Exposure to differing theoretical perspectives will be explored.

HSSR 1135 Affective Education & Group Process 3 credits

This course emphasizes the principles of therapeutic group facilitation; interpersonal and interpersonal communication processes; and personal growth and development in the generalist practice and chemical dependency settings. Topics include group formation, group leadership skills, examining motives for entering the helping professions, conflict resolution, rapport building, verbal and non-verbal communication. Current issues, ethics, and specific needs of various populations will be featured. The course features heavy emphasis on experiential learning, awareness of group dynamics, and practice of group leadership skills through participation as a group member in the laboratory setting.

HSSR 1140 Racial and Cultural Diversity in the Helping Professions 3 credits

This course provides an introduction to the general concepts and history of cultural diversity in U.S. society, and stresses the importance of understanding diversity in mental-health careers and the helping professions. It focuses on the history of many cultural/minority groups and provides an understanding of culturally-based help-seeking behaviors among racial, ethnic, and other subpopulations. Emphasis is on general diversity issues as well as issues specific to becoming culturally competent in the helping professions.

HSSR 1150 Case Management & Writing in the Helping Professions 2-3 credits

Prerequisite: ENGL 1101

A writing intensive course focusing on the various forms of professional writing typically encountered in the helping professions, and on the use of behavioral observations and writing to document client interactions and behaviors. Students will learn beginning skills needed to maintain records and case management necessary for rendering professional services to clients. Students will learn to analyze professional writing situations and apply the principles of effective writing to documentation, measurable goals and objectives, grant/proposal writing, letters, memos, case management, and treatment planning in generalist practice and chemical dependency. Topics will include: case assignment, planning, assessment, goal setting, observation, documentation, intervention, evaluation, and referral.

HSSR 2210 Counseling Theories 3 credits

Prerequisite: HSSR 1101, HSSR 1120 and PSYC 1110

This course presents the major counseling theoretical orientations and philosophies including discussion of major concepts and techniques, impact on the client-helper relationship, advantages and disadvantages of different theories. This course will emphasize practical application.

HSSR 2211 Counseling Techniques 3 credits

Prerequisite: HSSR 2210

The course builds on the basic counseling and interviewing theories studied in HSSR 2210, with emphasis on learning basic counseling skills that are appropriate to the counseling process in generalist practice and chemical dependency settings. Topics include techniques related to attending skills, facilitating growth, active listening, nonverbal behavior, action responses, motivational interviewing, and determining personal style. Special needs of diverse populations will also be featured.

HSSR 2215 Social Gerontology 2 credits

Prerequisite: HSSR 1101 and PSYC 1110

This class takes a multidisciplinary approach to examining the issues facing people in late adulthood. Students will explore the demographic, sociocultural, and mental health aspects of aging. Problem solving techniques will be covered, along with future trends necessary with the approach of an aging population. Physical, cognitive, and psychosocial aspects of aging will be discussed.

HSSR 2216 Prevention, Diagnosis & Treatment of Chemical Dependency 3 credits

Prerequisite: HSSR 1105

This course systematically studies chemical dependency as well as the theory and practice modalities related to treatment. The course will cover skills needed to recognize the enormity of this problem, how to assess and diagnose it and how to treat individuals and families who come for assistance. Strategies and community resources for diverse populations will be featured. Materials useful in preventing chemical dependency and/or relapse are also presented.

HSSR 2220 Developmental Disabilities 2 credits

This course covers developmental and lifecycle stages, etiology, psychosocial services, treatment, and education of the developmentally disabled. It also presents an overview of past, present, and future trends in the field. Terminology and legal issues will be discussed.

HSSR 2225 Psychology of Addiction & Family Systems 3 credits

Prerequisite: HSSR 1105

This course will cover a broad range of issues related to addiction including various theories of addiction, how

addiction is defined, how it develops, how it is treated, and how it can be prevented. The coursework will include study of biological, developmental, motivational, familial, and cultural aspects of addiction. The course will focus on many types of addiction, including alcohol addiction, drug addiction, tobacco addiction, sex addiction, eating disorders, compulsive gambling, and other emerging forms of addictive behavior. Class activities will include researching and reading journal articles, class discussion, as well as study from the assigned textbooks. This course will also focus on the impact of addiction on the family system and other relationships. Students will be exposed to the alteration of family patterns due to the presence of addiction. This course features a heavy reliance on academic research (scholarly journals) to supplement the material presented in the texts. (Students who have completed PSYC 2225 may not receive credit for this course.)

HSSR 2271 Human Services Practicum I *3 credits*

Prerequisites: Must be enrolled in HSSR program, have a minimum of 24 semester hours with a C or better in every course completed in the plan of study, or permission of instructor.

This course consist of a 240 hour placement in a local social services agency under professional supervision which will provides on the job training for students including development of human services skills, integration of human services theories and skill based training, professional documentation. The course includes a one hour per week seminar on-campus, focusing on discussion of learning experiences encountered in the practicum setting. Students will become familiar with the operations of a human services agency including client/staff interaction and employee responsibilities.

HSSR 2272 Human Services Practicum II *3 credits*

Prerequisites: Must be enrolled in HSSR program, have a minimum of 24 semester hours with a C or better in every course completed in the plan of study, or permission of instructor.

This course is designed as a continuation of practical experience and provides an additional 240 hours in a human services agency. Students will increase their level of responsibility in implementing human services skills. Supervision will be provided by a qualified professional. The course includes a one hour per week seminar on-campus, focusing on discussion of learning experiences encountered in the practicum setting. Students will become familiar with the operations of a human services agency including client/staff interaction and employee responsibilities.

HSSR 2275 Community Mental Health Issues *3 credits*

Prerequisites: HSSR 1101, HSSR 1150, & PSYC 1110

A writing intensive course covering the nature of mental illness and mental health, organization of community mental health services, history of mental health services and crisis intervention strategies. Topics include community based and residential treatment, societal impact of deinstitutionalization, assessment of crisis situations, use of short-term interventions to de-escalate crisis situations, strategies for meeting the needs of individuals and communities within a diverse population.

LOGISTICS MANAGEMENT - LMGT

LMGT 1110 Principles of Logistics & Supply Chain Management *3 credits*

This course introduces logistics/physical distribution and supply, and the related costs. It provides a systematic overview and analysis of the elements of logistics functions in widely varying types of industries and agencies, including handling, warehousing, inventory control and financial controls.

LMGT 1130 Logistics & Transportation *3 credits*
Prerequisite: LMGT 1110

This course focuses on logistics and intermodal transportation as part of supply chain management. The course addresses the development of the global transportation system, transportation regulation, the modes of transportation and how they interface, shipper issues, intermodal transportation management and the future in transportation.

LMGT 1150 Inventory Management *3 credits*
Prerequisite: LMGT 1130

This course studies the strategic role that inventory plays in the modern logistics environment. Subjects include inventories, regulations, outsourcing, material handling, procurement, continuous improvement, inventory control, and measuring inventory productivity.

LMGT 2200 Warehouse Management *3 hours*
Prerequisite: LMGT 1130

This course is designed to provide an overview of the strategic role of the warehousing function within the modern logistics environment, and the elements involved in warehouse management. Subjects include warehouse strategies, regulations, ICT, material handling, inventory control, and measuring inventory and warehouse productivity.

LMGT 2220 International Logistics Management *3 credits*
Prerequisite: LMGT 1110

Topics covered in this course include the government's

role in global logistics, the global logistics environment, ocean and air transportation, transportation to Canada, Mexico and the European continent including intermediaries, documentation, insurance, exporting and importing. Current trends in globalization will also be explored and evaluated. The role of logistics and transportation organizations in the global supply chain process will be discussed.

LMGT 2240 Logistics & Technology 3 credits

Prerequisite: LMGT 2200

This course introduces the role of technology in logistics/physical distribution and supply chain management. It explores the creation of integrated supply chains, the developments of virtual business and the process of re-engineering for business development. In addition, it looks at procurement as a strategic value from the “why” and “what” of good procurement instead of just the “how”.

MATHEMATICS - MATH

Math Substitution Policy: In programs requiring a specific math course the following substitutions of higher level courses may be made:

MATH 1124 for MATH 1115

MATH 1142 or 2221 for MATH 1120

MATH 1141, MATH 2221 or MATH 2241 for MATH 1118, MATH 1124 sequence (an elective can be used to make up any difference in credit hours)

MATH 1141, MATH 2221 or MATH 2241 for MATH 1124

MATH 1106 Pre-Algebra 3 credits

Prerequisite: High school Algebra I with a grade of “C” or higher or appropriate score on the college placement test.

This course is an introduction to elementary algebra. It includes rational numbers, like terms, exponents, and linear equation solving. This course may not be used to meet general education or math requirements in a program. Check with an advisor to see if this course can be used as an elective credit toward a degree.

MATH 1115 Math for the Business and Social Sciences 3 credits

Prerequisite: MATH 101, MATH 106 or MATH 1106, or Algebra I with minimum grade of “C”, or appropriate score on the college placement exam.

This course is designed to give students experience with language, notation, and problem solving. Topics are relevant to business technologies, social science technologies, and consumer skills. Topics include: problem solving, number sense, geometric formulas,

measurement, applied percent, formulas, simple and compound interest, consumer credit, probability, and statistics.

MATH 1116 Beginning Algebra 3 credits

Prerequisite: One of the following: Two years college preparatory math with a grade of C or higher; Appropriate score on the college placement exam; Math 101 or Math 106 or Math 1106 with a grade of C or higher.

This course includes the basis concepts and techniques of elementary algebra. Topics include solving first degree equations and inequalities, coordinate system graphing of linear equations and inequalities, creating the equation of a line and solving systems of linear equations. This course cannot be used to meet general education or math requirements in a program. This course may be able to be used as elective credit toward a degree. Check with an advisor.

MATH 1118 Intermediate Algebra 4 credits

Prerequisite: One of the following: 3 years of college preparatory math with a grade of “C” or higher; appropriate score on college placement exam; or MATH 117, MATH 1117, or MATH 1116 with a grade of “C” or higher

This course is a continuation of algebra concepts. Topics include a review of elementary algebra concepts, rational expressions, linear equations, polynomials and factoring, radicals, quadratic equations, functions and graphs, exponents, logarithms, and systems of equations. This course cannot be used to meet general education or math requirements in a program. Check with an advisor to see if this course may be able to be used as elective credit toward a degree.

MATH 1120 Technical Mathematics 3 credits

Prerequisite: MATH 118 or MATH 1118 or 3 years of college preparatory math with a minimum grade of “C” or appropriate score on college placement test

This course contains skills and applications related to the engineering technologies. Emphasis is on formulas, graphing, trigonometry, vectors, exponential and logarithmic functions.

MATH 1124 Finite Math 3 credits

Prerequisite: One year of the following: Three or four years college preparatory math with a grade of B or higher; Appropriate score on the college placement exam; ACT math score of 22 or above; SAT math score of 520 or above; Math 1118 or Math 118 or Math 1116

This course is designed for social science, business, computer and other general education majors. Topics will include mathematical modeling, linear programming, matrices, logic, and an introduction to probability

and statistics. A special emphasis is placed on mathematical applications and problem-solving.

MATH 1135 Allied Health Math 3 credits

Prerequisite: Student must meet one of the following criteria to register for this course: Two years of College prep math with a grade of “C” or higher; Appropriate score on the College placement test; MATH 117 or MATH 1117 or MATH 1116 or above.

This course introduces math topics used in allied health fields. The topics covered include metric and household (English) systems, conversion factors, medical dosage calculations for oral medications, parenteral medications, and syringes; pediatric dosages; solutions; safe dosages; infusions; and case studies.

MATH 1141 College Algebra 3 credits

Prerequisite: One of the following: 3-4 years college preparatory math with a grade of B or above; Appropriate score on Accuplacer; ACT math score of 22 or above; SAT math score of 520 or above; Math 1118 or Math 118

This course emphasizes the use of algebra and functions in problem solving and modeling. Appropriate use of technology and applying mathematics to real-world situations is emphasized. Topics include linear, quadratic, polynomial, rational, radical, exponential, logarithmic, and piece wise equations and functions. Students whose programs recommend a college algebra course or who need to prepare for calculus should take this course.

MATH 1142 College Trigonometry 4 credits

Prerequisite: One of the following: 4 years of college preparatory math with a grade of “C” or above; appropriate score on math placement test; MATH 141 or MATH 1141; ACT math score of 26 or higher

This course includes a study of trigonometric functions and their applications. Topics include circular functions, trigonometric functions, trigonometric identities, trigonometric equations, vectors, the complex plane, polar coordinates, conic sections, and applications of these concepts.

MATH 1160 Statistical Concepts 3 credits

Prerequisites: MATH 118 or MATH 1118 or equivalent with a grade of C or higher, or Math 1124 or Math 124 or Math 1141 or Math 141, or 3 years college preparatory math with a minimum grade of “C” or above, or Accuplacer test score of 90 or above.

This course serves as a non-technical introduction to fundamental ideas in statistics. Statistical ideas are introduced through examples, showing how statistics has helped solve major problems in various fields. Students who already earned credit for MATH 281 or MATH

2281 may not earn credit for this course

MATH 1199 Seminar 1–6 credits

This course will be a discussion of particular problems related to a chosen program or area of interest.

MATH 2221 Calculus I 5 credits

Prerequisite: One of the following: MATH 1141 and 1142, or Math 141 and 142; 4-5 years of college preparatory math with a grade of “B” or above (This must include a course in trigonometry); or ACT math score of 26 or above.

This course introduces calculus using analytic geometry and transcendental functions. Topics include limits and continuity, derivatives, optimization, related rates, graphing and other applications of derivatives, definite and indefinite integrals, and numerical integration.

MATH 2222 Calculus II 5 credits

Prerequisite: Math 221 or Math 2221, or the equivalent

This course is a continuation of Math 2221 Calculus I and includes applications of integration such as areas between curves, volumes of rotation, work, arc length, applications to physics and engineering; techniques of integration; parametric equations and polar coordinates; and infinite sequences and series.

MATH 2223 Calculus III 4 credits

Prerequisite: Math 222 or Math 2222, or the equivalent

This course concerns multivariable calculus and is a continuation of Math 2222. It includes applications of vectors and vector functions; partial derivatives and their applications, including gradients; multiple integration in rectangular, polar, cylindrical and spherical coordinates; vector fields, line integrals, curl and divergence, and Green’s, Stokes’ and Divergence Theorems.

MATH 2230 Differential Equations 4 credits

Prerequisite: MATH 2222, MATH 223, or the equivalent of two semesters of Calculus

This course is an introduction to ordinary differential equations. Topics include first-order and higher order differential equations, power series solutions, polynomial operators, Laplace transforms, and numerical methods for solving ordinary differential equations. Applications to physical problems will be emphasized.

MATH 2237 Math for the Elementary Teacher I 4 credits

Prerequisite: MATH 118 or MATH 1118, or 3 years of college preparatory math with a minimum grade of “C”.

This course includes a review of problem solving, set theory, numeration systems, whole number concepts, fractions, use of manipulatives in teaching mathematics,

the use of calculators and computer software. Instructional strategies and use of hands-on materials will be included.

MATH 2238 Math for the Elementary Teacher II 4 credits

Prerequisite: MATH 118 or MATH 1118, or 3 years of college preparatory math with a minimum grade of “C”

This course includes math topics as they relate to the elementary education. Topics include geometry, measurement, coordinate geometry, transformations, use of manipulatives in teaching mathematics, the use of calculators and computer software. Instructional strategies and use of hands-on materials will be included.

MATH 2241 Calculus for Business, Social and Life Sciences 5 credits

Prerequisite: Math 141 or Math 1141, or 4 years of college preparatory math

This course is designed for business majors or other majors who will need a calculus based applications course. Topics will include limits, rates of change, optimization and other applications involving derivatives, exponential and logarithmic functions, and applications of integrals. Students who have earned credit for MATH 2221 may not earn credit for this course.

MATH 2250 Linear Algebra 4 credits

Prerequisite: MATH 223 or MATH 2222, or the equivalent

This course serves as a standard introduction to linear algebra. Topics include matrix, operations, vector spaces, inner product spaces, linear transformations, determinants, eigenvalues and eigenvectors.

MATH 2281 Introductory Statistics 3 credits

Prerequisite: MATH 124 or MATH 1124, or MATH 141 or MATH 1141

This course covers descriptive analysis and presentation of statistical data, linear correlation and regression, probability, binomial and normal distributions, chi-square, and hypothesis testing and other statistical inferences about means and proportions for one and two samples.

MATH 2290 Research Topics in Pre-Calculus 3 credits

Prerequisite: MATH 141 or MATH 1141 and MATH 142 or MATH 1142, or their equivalents

This course is designed as a mathematics elective that will give students experience at creating mathematical knowledge that is new to them, exploring trigonometric, geometric, algebraic, and related topics in a directed research setting.

MATH 2291 Introduction to Mathematical Proofs 3 credits

Prerequisite: MATH 2223 and MATH 2250

This course introduces logic and various techniques used in mathematical proofs. Students gain experience in constructing proofs, primarily through sets, relations, functions, algebraic structures and properties of real numbers. This course benefits students intending to study mathematics at the university level.

MEDICAL ASSISTING - MAST

MAST 1101 Introduction to Medical Assisting & Procedures 3 credits

Prerequisite: Acceptance into Medical Assisting Program, MAST 1111, MAST 1115

This course begins with introductory level content progressing to intermediate level procedures. Instruction includes an introduction to the occupation of medical assisting and certification requirements. This course includes orientation to the use of the laboratory for practice of skills to be gained throughout the medical assisting program. Course content progresses through theory and techniques utilized by the medical assistant to performance of competency based skill examinations performed in the clinical setting. A review of body systems, and the specialty exams associated with Ophthalmology, Otolaryngology and Pediatrics, are included along with routine room preparation, inventory and equipment maintenance. Competencies related to the collection of patient history information, cleaning biohazardous spill, contaminated glove removal, hand washing, vital signs, patient examinations, appropriate positioning and draping, Snellen exam, Ishihara exam, eye/ear irrigation and medication instillation, audiometry, use of the oto-ophthalmoscope, pediatric examinations, plotting growth chart results and patient record documentation are included. This course follows CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 1111 Medical Administrative Procedures 3 credits

Prerequisite: Acceptance into Medical Assisting or Billing & Coding Specialist Program

Corequisite: MAST 1115

This course is designed to introduce the student to general and administrative duties found in a medical office and includes appointment scheduling, records management, written communications, preparation of medical records, billing, health insurance, professional reports, telephone procedures, and telephone competency. The course includes office simulations in all these areas as well as lecture, discussion, and lab sessions using interpersonal skills. This course follows CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 1115 Medical Terminology 2 credits

This course is designed for the student in allied health technology and includes the principles of building a medical vocabulary. Emphasis is placed on the use of word parts including prefixes, suffixes, and root words used with a combining form to establish medical terms. Course provides an overview of body systems used in conjunction with terminology. Correct spelling, definition and pronunciation of medical terms is stressed. Communication both written and verbally between health care professionals and between the health professional and patient is emphasized.

MAST 1118 Human Diseases 2 credits

Prerequisites: BIOL 1104 or BIOL 2205 (per program requirements), MAST 1115

This course includes basic information about common medical conditions, human diseases, and the disease process. Emphasis will be placed on documentation of symptoms, patient assessment, case management - including diagnostic tests indicated, treatment indicated, client teaching required and ways to validate a patient's understanding of their disease and treatment. Course content includes major conditions organized by body system and a nine-part format consisting of description, etiology, signs and symptoms, diagnostic procedures, treatment, complimentary therapy, client communication, prognosis and treatment. Transition from ICD-10-CM coding systems is discussed and codes are listed for each disease reinforcing the importance of proper coding for reimbursement and research. This course follows CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 1126 Clinical Practicum I 1 credit

Prerequisites: MAST 1101, MAST 1111

The Medical Assistant Practicum Program is a period of directed practice which consists of practical medical assisting experience in a hospital, clinic, or comprehensive family health care facility.

MAST 1199 Seminar 1-6 credits

This course will be a discussion of particular problems related to the student's chosen program and areas of interest.

MAST 2205 Medical Law & Ethics 2 credits

Series of lecture and discussion of medico-legal issues. Includes requirements for licensure certification and registration of medical professionals. Discussion and class exercises relate to the correlation of medical office employees to the public, litigation in the medical workplace, use consent forms, patient rights and confidentiality, the medical record, and collection of patient accounts. Course includes lecture and discussion.

MAST 2212 Medical Transcription 3 credits

Prerequisite: Medical Assisting or Medical Transcriptionist Program Acceptance

Introductory course in medical transcription including the use of transcription equipment, computer word processing, formatting and use of appropriate medical forms. Includes ethical and legal issues for the medical transcriptionist as well as transcription guidelines for punctuation, capitalization, proofreading and making corrections, and use of references. Emphasis is placed on accuracy, correct spelling, punctuation of chart notes and letters with an introduction to the history and physical report and hospital discharge summary. This course follows CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 2215 Medical Laboratory Techniques 3 credits

Prerequisite: MAST 1101, MAST 1115 and BIOL 2205

An introduction to diagnostic laboratory procedures performed in the physician's office and medical laboratory science. Principles of laboratory procedures will be studied by observation, discussion, and practice in the laboratory sessions with emphasis on collection, proper handling, including blood and body fluid restrictions, and identification of specimens, basic hematology procedures, routine urinalysis, rapid strep, pregnancy tests, and venipuncture for competency. This course follows CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 2218 Medical Billing & Coding I 3 credits

Prerequisite: Acceptance into Medical Assisting Program or Billing & Coding Specialist Program
Corequisites: MAST 1111, MAST 1115

This course provides the fundamentals of initiating, tracking and processing insurance forms for commercial insurance carriers. Basic theory and coding principles utilizing Current Procedural Terminology (CPT) and International Classification of Disease (ICD-10) for completion of medical insurance claims and appropriate terminology are emphasized along with accurate abstracting of information from the office medical record. Competency Based Exam (CBE) for accurate completion of CMS-1500 is completed.

MAST 2219 Medical Billing & Coding II 3 credits

Prerequisite: MAST 2218
This course continues emphasis on Current Procedural Terminology (CPT) and Internal Classification of Diseases (ICD-10) coding skills and provides fundamentals of initiating, tracking and processing Medicare, Medicaid, Champus/Champva, Workers' Compensation and Disability Compensation claims, and introduction to Healthcare Common Procedure Coding System (HCPCS) and Diagnosis Related Groups (DRGs).

MAST 2220 Emergency Medical Procedures *3 credits*

Prerequisite: MAST 1101 or ALTH 1101

Introduction of theory and techniques employed by the healthcare professional in emergency situations. Course includes simulations and laboratory sessions to identify and institute appropriate responses to various emergency incidents. Included with the emergency procedures course is a course in cardiopulmonary resuscitation. With successful completion of the course, the student will receive a course completion card in adult, child, and infant CPR. This course follows the CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 2226 Clinical Practicum II *1 credit*

Prerequisites: MAST 1126

The Medical Assistant Practicum Program is a period of directed practice which consists of practical medical assisting experience in a hospital, clinic, or comprehensive family health care facility.

MAST 2230 Pharmacology *3 credits*

Prerequisites: Acceptance in Medical Assisting Program, MATH 1135, MAST 1115

Presentation of the principles of pharmacology relating to the medical assisting profession. Instruction introduces the student to patient education regarding medications, researching drugs in a drug reference and correlation of drug therapy and pathophysiologic conditions. Knowledge and experience is gained through research of drug generic and trade names, usage, action, side effects, and contraindication in a drug reference book, and recording the information on pharmacology index cards. Course content includes pharmacology math, routes of medication administration and parenteral techniques most commonly administered in the medical office. Emphasis is placed on competency based skills and worksheet documentation to record oral and parenteral medications administered, dispensed, or prescribed during classroom simulation and the practicum experience. This course follows the CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 2240 Clinical Procedures *3 credits*

Prerequisites: MAST 1101

Presents the theory and techniques required by the medical assistant to perform fundamental skills at intermediate and advanced levels. Procedure skills include those associated with Gastroenterology, Urology, Neurology, Obstetrics, Gynecology, Geriatrics, family medical practice, surgical, and specialty practices. Emphasis is placed on competency based skills and techniques used in male and female catheterization, enemas, patient instructions for GI testing, pre- and postnatal exams, Pap smears, assisting with minor surgical

procedures, assisting with technical diagnostic procedures, and technique. This course follows CAAHEP/AAMA accreditation standards in place for Medical Assistants.

MAST 2297 Medical Assisting Review *2 credits*

Prerequisites: MAST 2240, MAST 2215, MAST 2218

Co-requisites: MAST 2219, MAST 2220, MAST 2230

This course is designed as a review tool for the Medical Assisting student in preparation for the Certified Medical Assisting or similar Medical Assisting credentialing examinations, to aid students in recalling administrative, clinical and trans-disciplinary medical assisting principles, medical assisting guidelines, review of completed skill competencies for future employment, discovery of content areas needing review, and practice of computer-based test-taking skills.

NURSING - NRSG (ADN) *Fall 2017 start & later*

NRSG 1050 Introduction to Nursing Practice *2 credits*

Prerequisite: Acceptance into the Nursing Program

Corequisites: BIOL 2205, MATH 1135, NRSG 1200, and NRSG 1500

This course guides the student to develop behaviors and skills to succeed in the nursing program.

NRSG 1107 Nursing Ethics *2 credits*

Prerequisites: English 1101 and Pre-Nursing or Nursing student

This course examines the topics of cultural awareness and ethical decision making as it applies to nursing practice.

NRSG 1200 Pathophysiology *2 credits*

Prerequisite: Acceptance into the Nursing Program

Corequisites: BIOL 2205, MATH 1135, NRSG 1050, and NRSG 1500

This course addresses the pathophysiology of selected disorders across the lifespan and the nursing implications of this knowledge.

NRSG 1300 Pharmacology *2 credits*

Prerequisite: BIOL 2205, MATH 1135, NRSG 1050, NRSG 1200, NRSG 1500

Corequisites: BIOL 2206, ENGL 1101, NRSG 1600, and PSYC 1111

This course introduces the nursing student to pharmacologic nursing practice.

NRSG 1500 Nursing Concepts I: Normal Findings *5 credits*
Prerequisite: Acceptance into the Nursing Program

Corequisites: BIOL 2205, MATH 1135, NRSG 1050, and NRSG 1200

This course introduces the student to nursing care of the patient with normal findings.

NRSG 1600 Nursing Concepts II: Wellness and Basic Chronic Conditions *6 credits*

Prerequisite: BIOL 2205, MATH 1135, NRSG 1050, NRSG 1200, and NRSG 1500

Corequisites: BIOL 2206, ENGL 1101, NRSG 1300, and PSYC 1111

This course will guide the student to develop nursing knowledge and skill related to wellness, health promotion, and to care for the patient with basic chronic conditions.

NRSG 2300 Concepts of Maternal and Child Nursing Care *5 credits*

Prerequisite: BIOL 2205, BIOL 2206, ENGL 1101, MATH 1135, NRSG 1050, NRSG 1200, NRSG 1300, NRSG 1500, NRSG 1600, and PSYC 1111

Corequisites: ENGL 1102, NRSG 2500, and SOCI 1170

This course prepares the student to meet the unique needs associated with maternal and child nursing care.

NRSG 2400 Mental Health Nursing *2 credits*

Prerequisite: BIOL 2205, BIOL 2206, ENGL 1101, ENGL 1102, MATH 1135, NRSG 1050, NRSG 1200, NRSG 1300, NRSG 1500, NRSG 1600, NRSG 2300, NRSG 2500, PSYC 1111, and SOCI 1170

Corequisites: BIOL 2210, NRSG 1107, NRSG 2600, and NRSG 2800

The course prepares the student to advance knowledge and skill for the care of patients with mental health needs.

NRSG 2500 Nursing Concepts III: Acute and Chronic Conditions *5 credits*

Prerequisite: BIOL 2205, BIOL 2206, ENGL 1101, MATH 1135, NRSG 1050, NRSG 1200, NRSG 1300, NRSG 1500, NRSG 1600, and PSYC 1111

Corequisites: ENGL 1102, NRSG 2300, and SOCI 1170

This course will prepare the student to care for the patient with acute and chronic conditions.

NRSG 2600 Nursing Concepts IV: Complex & Higher Acuity Conditions *4 credits*

Prerequisite: BIOL 2205, BIOL 2206, ENGL 1101, ENGL 1102, MATH 1135, NRSG 1050, NRSG

1200, NRSG 1300, NRSG 1500, NRSG 1600, NRSG 2300, NRSG 2500, PSYC 1111, and SOCI 1170

Corequisites: BIOL 2210, NRSG 1107, NRSG 2400, and NRSG 2800

This course will prepare the student to care for patients with complex or higher acuity conditions.

NRSG 2800 Nursing Capstone *3 credits*

Prerequisite: BIOL 2205, BIOL 2206, ENGL 1101, ENGL 1102, MATH 1135, NRSG 1050, NRSG 1200, NRSG 1300, NRSG 1500, NRSG 1600, NRSG 2300, NRSG 2500, PSYC 1111, and SOCI 1170

Corequisites: BIOL 2210, NRSG 1107, NRSG 2400, and NRSG 2600

This course is designed to provide concepts relevant to the needs of the student preparing to transition from the role of a student RN into the professional RN role.

NURSING - NURS *Enrollment start date prior to Fall 2017*

NURS 1101 Fundamentals of Nursing *6 credits*

Prerequisite: Acceptance into the Nursing Program

Corequisites: NURS 1115, ALTH 1105, BIOL 2205 and MATH 1135

Building on the student's introduction to the program philosophy and organizing framework which was initiated during the orientation, this course introduces fundamental concepts and skills of nursing which are essential to providing patient centered care throughout the lifespan. Using the framework of basic human needs and personal dignity, the nursing process and promotion of health on the continuum, the student learns skills related to the areas of disease prevention, surgical asepsis, wound care, physical well-being, safety, fluids and nutrition, personal hygiene, mobility, elimination, rest, oxygenation, medication administration and IV therapy. The concepts of professional teamwork, legal, ethical, and cultural issues, quality improvement issues and required communication will be integrated with each skill. Guided laboratory and clinical experience complements theory.

NURS 1105 Maternal Newborn Nursing *4 credits*

Prerequisites: NURS 1101, NURS 1115, ALTH 1105, BIOL 2205 and MATH 1135

Corequisites: NURS 1120, BIOL 2206 and PSYC 1111

This course addresses the use of the nursing process and using clinical judgment to promote health in the childbearing family during the process of reproduction, pregnancy, labor, delivery and the postpartum periods. Attention is also directed toward the normal newborn, and the newborn at risk. Emphasis shall be placed on nurse awareness of physical, nutritional, mental, emotional and social needs of the mother, the family and the newborn. Throughout the course, the dignity

of the individual, appropriate communication skills, and pharmacological aspects of reproductive and maternal child care are discussed. Professional responsibilities of the nurse, patient quality improvement, and patient safety issues are integrated throughout the course along with significant ethical and legal responsibilities. Clinical practice experiences along with Human Patient Simulation complement the theory portion of the course.

NURS 1107 Ethics in Nursing Practice 3 credits
Prerequisites: ENGL 1101 and Pre-Nursing or Health Science student

This course is designed to introduce nursing students to the historical development of formal theories of ethics in Western Culture as it relates to issues in health care. The course includes the major ethical, spiritual and moral issues that students may face personally and professionally as they transition from the role of student nurse to professional nurse.

NURS 1113 Trends in Nursing 2 credits
Prerequisites: NURS 1105, NURS 1120, BIOL 2206, and PSYC 1111

Corequisites: ENGL 1101 and NURS 1121
This seminar course investigates the profession of nursing within the broader context of society, the legal system and the health care environment. Professional, legal, ethical and social issues are explored and considered with the intention of promoting adaptation to and synthesis of the nurse's professional role. The role of the nurse in addressing patient safety, patient-centered care, clinical judgment, quality improvement, and professional communication is addressed within the context of the course.

NURS 1115 Pharmacology I 2 credits
Prerequisites: Acceptance into Nursing Program
Corequisites: ALTH 1105, BIOL 2205, MATH 1135, and NURS 1101

Basic pharmacological aspects of patient-centered care throughout the lifespan are studied in this course. This includes building a foundation of knowledge of drug classification for major body systems, and discovering the connection between pathophysiology, pharmacology and nursing care related to drug administration. The roles and responsibilities of the professional nurse, together with ethical and legal consideration in drug administration will be explored. Application of the nursing process with regards to pharmacology will be discussed. The need for safety and reduction of risk through improvement of the drug administration process will be incorporated throughout the course, including review and testing of accurate dosage calculation.

NURS 1120 Medical Surgical Nursing I 6 credits
Prerequisites: NURS 1101, NURS 1115, ALTH 1105,

BIOL 2205, and MATH 1135

Corequisites: NURS 1105, BIOL 2206, and PSYC 1111

This course follows the framework identified from the program philosophy using patient-centered care and clinical judgment in relationship to quality improvement and safety to form a plan of study for specific health conditions of the endocrine, respiratory, gastrointestinal, urinary, musculoskeletal, cardiac systems, cancer and the terminally ill. Preventive, rehabilitative, and therapeutic aspects of these conditions are studied as well as the physical, mental, emotional, cultural, and spiritual needs of adults and children experiencing these conditions. Integrated within the course is the professional role of the nurse in patient care in collaboration with team members, patient, and family through effective communication to promote positive outcomes.

NURS 1121 Medical Surgical Nursing II 5 credits
Prerequisites: BIOL 2206, NURS 1105, NURS 1120 and PSYC 1111

Corequisites: ENGL 1101 and NURS 1113

This course continues the student learning from NURS 1120 using the identified framework described for that course. The content of this course continues with common conditions affecting hematological, lymphatic, reproductive, neurological, integumentary systems, mental health, vision, hearing, and related nursing care. An introductory unit on integrative therapies is presented with emphasis on the need of today's nurse having knowledge of the various modalities. The course is designed to promote an understanding of normal growth and personality development along with the influence of environmental factors on the patient, child or adult, and family.

NURS 1190 Preparation for the NCLEX- PN Exam 2 credits

Prerequisites: Third semester standing in Practical Nursing program

Corequisites: NURS 1105, NURS 1113, NURS 1121, and, PSYC 1111

An organized study seminar for practical nursing students preparing to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN). The course is designed to aid students in recalling nursing principles and nursing care for commonly encountered health problems throughout the life span. Methods to improve test-taking skills and relieve test anxiety are included.

NURS 2200 LPN to ADN Student Bridge Course 3 credits

Prerequisite: Acceptance into the ADN Transition Pathway

This course is designed to enable the student to explore

integrative concepts in nursing and to assist the student in the transition from licensed practical nurse to registered nurse. Students refine and update previous learning in addition to identifying goals for a successful transition into the associate degree nursing program. Incorporated throughout the course is the importance of patient-centered care, quality improvement, communication, safety, clinical judgment, and professionalism.

NURS 2201 Transition to Professional Practice 1 credit

Prerequisite: Acceptance into Associate Degree Nursing program

Corequisites: NURS 2210, NURS 2220 and PSYC 1110

This course is designed to provide concepts relevant to the needs of the student transitioning from a prior role as an LPN student or as a Licensed Practical Nurse to the role of a student in the RN level of the nursing program.

NURS 2205 Psychiatric Nursing 3 credits

Prerequisites: NURS 2201, NURS 2210, NURS 2220, and PSYC 1110

Corequisites: General Elective (non-technical), NURS 1107, and NURS 2221

Special emphasis centers on teaching the student to use the nursing process to manage the nursing care for patients whose health conditions indicate acute or chronic psychiatric disturbances. Mental health promotion for all patients is stressed. Areas that will be included in the course content for the professional nurse include communication with the other members of the health care team to improve the quality of care provided to patients with mental health disorders. The pharmacological aspects of the nursing care are integrated throughout the course. The need for safe patient-centered care is incorporated into all aspects of the theory and clinical practice of the course.

NURS 2210 Advanced Health Assessment 2 credits

Prerequisites: Acceptance in ADN program

Corequisites: NURS 2201, NURS 2220, and PSYC 1110

This course provides the basic framework for the systematic collection, organization, interpretation, and communication of data reflecting the health status of individuals across the life span. This course includes assessment of mental status, basic psychosocial status, basic functional health patterns, and basic physical assessment skills. Incorporated throughout the course is the importance of patient-centered care, quality improvement, ethical-legal considerations, professionalism, and safety. Integration of clinical laboratory provides a setting for practicing and developing critical thinking skills.

NURS 2220 Advanced Concepts in Medical-Surgical Nursing I 6 credits

Prerequisites: Acceptance into Associate Degree Nursing program

Corequisites: NURS 2201, NURS 2210, and PSYC 1110

This course advances student learning in the area of medical surgical nursing, focusing on the multi-faceted role of the nurse in providing patient centered nursing care across the life span to those who have complex acute care health issues. The student is expected to integrate knowledge gained from previous learning experiences to assist the patient and family to achieve optimal health status by providing care in a professional, safe manner. Using clinical judgment, evidence-based practice and quality improvement indicators, the student will practice nursing in an interdisciplinary environment. The student will demonstrate the ability to communicate pertinent information within the health care setting during the clinical experience. Clinical concepts and pharmacological aspects of care are integrated into the content of the course. Clinical practice experience will complement the theory as presented.

NURS 2221 Advanced Concepts in Medical-Surgical Nursing II 6 credits

Prerequisite: NURS 2201, NURS 2210, NURS 2220 and PSYC 1110

Corequisites: NURS 1107 and NURS 2205

This course advances student learning in the area of medical-surgical nursing, including the previous course, NURS 2220, focusing on the multi-faceted role of the nurse in providing patient centered nursing care across the life span to those who have complex acute care health issues. The student is expected to integrate knowledge gained from previous learning experiences to assist the patient and family to achieve optimal health status by providing care in a professional, safe manner. Using clinical judgment, evidence-based practice and quality improvement indicators, the student will practice nursing in an interdisciplinary environment. The student will demonstrate the ability to communicate pertinent information within the health care setting during the clinical experience. Clinical concepts and pharmacological aspects of care are integrated throughout the course. Clinical practicum experience including an acute care preceptorship is designed to progress the nursing student toward professional practice.

NURS 2290 Preparation for the NCLEX-RN Exam 2 credits

Prerequisite: Second Semester standing in Associate Degree Nursing Program

A comprehensive review of the nursing process and the client needs categories according to the NCLEX-RN test plan (safe and effective environment, physiological integrity, psychosocial integrity and health

promotion and maintenance) in the areas of obstetric, pediatric, medical-surgical and mental health nursing. The course also includes methods to improve test-taking skills and to relieve stress.

OFFICE INFORMATION TECHNOLOGY - OFIT

OFIT 1106 Keyboarding Techniques I *3 credits*

In this course, students will master the computer keyboard by touch for personal use or in preparation for work in a business setting. Students will learn proper keyboarding technique while keying alphabetic, numeric, and 10-key numeric keypad characters. Students will complete activities online, where drills will facilitate learning the keyboard and developing speed and accuracy. In addition, students will use Microsoft Word 2016 to demonstrate basic level production formatting of emails, memos, business correspondence, tables, business reports, manuscripts, and research paper.

OFIT 1130 Word Processing I *3 credits*

Beginning word processing course using adopted Microsoft Word release edition. Focus will be on creating, formatting, editing, saving, retrieving, and printing documents using word processing software. Included will be maintenance and customization of documents, creating and formatting tables and enhancing documents with special features in preparation for the Microsoft Word 77-725 Exam.

OFIT 1131 Self-Awareness in Office Technologies *3 credits*

This course is designed to familiarize students with the significant changes in the cultural landscape of the United States and to understand and differentiate among reactions to the cultural landscape through real-life perspectives based on self-reflection and analysis.

OFIT 1145 Interpersonal Skills *3 credits*

This course provides training in interpersonal skills and tips for managing people at work and is designed to help students focus on developing and practicing interpersonal skills in team-building, negotiating, conflict resolution skills, and empowerment through creative role-playing and constructive feedback.

OFIT 2231 Windows 7 *3 credits*

This course will provide an understanding of Windows Operating System basics as it pertains to files, folders, programs, desktop customization, adding software and hardware, troubleshooting and repair, security, and sharing of information.

OFIT 2232 Introduction to Business Management *3 credits*

This class introduces the student to the fundamentals of

business. Special emphasis is placed on business in the global economic environment, organization and management, operations and technology, personal finance management.

OFIT 2236 Desktop Publishing & Office Applications *3 credits*

An overview of the purpose and description of desktop publishing. Basic layout and design capabilities using a hands-on approach on the computer. Students will be able to develop a portfolio of published assignments, desktop terminology and critiques of effective and poor design concepts in desktop communications. Included will be the understanding of the desktop publishing process, preparing internal documents, crating letterheads, business cards, personal documents, brochures, booklets, promotional documents, and creating newsletters utilizing Microsoft Office 2016.

OFIT 2240 Organizational Communication *3 credits*

This course covers effective communication techniques in business including concepts, perception, diversity, language, listening and responding, interpersonal skills, conflict resolution, teamwork, and supporting written communications techniques.

OFIT 2290 Internship *4 credits*

Prerequisite: Students must have completed 25 credit hours in the Office Information Technology studies area with a grade of "C" or above in each course.

A supervised on or off-campus office work experience applying knowledge and skills learned in the classroom or on-line learning experience. Twenty-one (21) hours of work per week required for three credits. An on-campus seminar or online learning seminar will be included for one credit hour. Students must have completed 25 credit hours in the Office Information Technology studies area with a grade of "C" or above in each course.

OFIT 2299 Research Project *1 to 5 credits*

Prerequisite: sophomore standing

Independent study in the area office administration technology and office administration in a formal report, research paper, project, or a combination of these. Selection of the area of study or project is made in consultation and approval of the instructor.

PHILOSOPHY - PHIL

PHIL 1101 Introduction to World Philosophy *3 credits*

Prerequisite: ENGL 1101

This course is designed to acquaint students with the value and various methods of philosophically examin-

ing life experiences, as well as to acquaint them with the basic philosophical beliefs of non-Western and Western cultures. Students are required to read short selections from the primary works of various philosophers, required to write short philosophical papers; and are encouraged to raise philosophical questions about knowledge, reality, other cultures, and values.

PHIL 1102 Introduction to Western Philosophy *3 credits*

Prerequisite: ENGL 1101

This course is designed to acquaint students with the value and various methods of philosophically examining life experiences, as well as to acquaint them with the historical development of Western philosophy from the Greeks to the modern age. Students are required to read at least one primary work by a major Western philosopher as well as to write short philosophical papers. In addition, students will be encouraged to raise philosophical questions about knowledge, experience, value systems, and so forth.

PHIL 1107 Ethics *3 credits*

Prerequisite: ENGL 1101

This course is designed to acquaint students with the historical development of formal theories of ethics in Western culture as well as with many of the major ethical issues and moral questions that dominate contemporary life, both personal and professional.

PHYSICAL SCIENCE - PHYS

PHYS 1101 Introduction to Physical Science *3 credits*

An introductory course designed to allow students to explore the basic concepts of physical science. Students will be introduced to the history and nature of science. The course includes an introduction to the fundamental concepts of physics, chemistry, astronomy, and earth science. Students will be encouraged to explore the relationship between science and everyday life.

PHYS 1104 Physical Geology *4 credits*

This course introduces the concepts and principles of the Earth's materials and processes. Topics include: concepts of plate tectonics, mineral identification, rock formation, soils, stream development, ground water, seismology, volcanism, glaciation, energy and mineral resources, and their effects on man's environment and society.

PHYS 1115 Applied Physics II (Heat, Light, Sound) *3 credits*

Prerequisite: MATH 1118 or the equivalent
Corequisite: MATH 1120, or MATH 1141, or MATH 1142

This course introduces the student to concepts of

temperature and effects of heat, heat and change of state, heat transfer, thermodynamics, harmonic motion, waves, sound, light and illumination, reflection, refraction, and dispersion of light and optical instruments. Demonstrations and laboratory work to complement class work.

PHYS 1117 Applied Physics I (Mechanics) *3 credits*

Prerequisites: MATH 1118 or the equivalent
Corequisite: MATH 1120, or MATH 1141, or MATH 1142

An introductory, algebra based, survey course suitable for applied science and pre-med assisting majors covering the topics of measurement, space, time, vectors, one dimensional and multi-dimensional motion, dynamics, forces, work and energy, conservation of energy, systems of particles, collisions, rotational motion, rotational dynamics. Laboratory component is included.

PHYS 1121 Applied Physics III (Electricity and Magnetism) *3 credits*

Prerequisites: MATH 1118, or the equivalent
Corequisite: MATH 1120, or MATH 1141, or MATH 1142

An algebra based introductory course in electrostatics, magnetism, electromagnetism, electromagnetic induction and sources and effect of electric current, alternating current, circuits and introduction to concepts of atomic energy. Demonstrations and laboratory work to complement class work.

PHYS 1130 Astronomy *3 credits*

Prerequisites: MATH 101 or MATH 106 or MATH 1106 or equivalent

A descriptive course dealing with general principles of astronomy as well as recent discoveries in the realm of cosmology.

PHYS 1140 Physics for Allied Health Sciences *3 credits*

Prerequisite: MATH 1116 or MATH 117 or MATH 1117

This course is an introductory survey of the basic elements of physics. Topics include measurement, error analysis, mechanics, thermodynamics, electricity and magnetism, and modern physics. Emphasis will be placed on those topics which relate to respiratory therapy.

PHYS 2201 General Physics I (Algebra Based) *4 credits*

Prerequisites: MATH 1141 and 1142, or the equivalent. Lab must be taken concurrently with General Physics.
Corequisite: PHYS 2211

An introductory, algebra based, survey course suitable

for science and pre-med majors, covering the topics of measurement, space, time, vectors, one dimensional and multi-dimensional motion, dynamics, forces, work and energy, conservation of energy, systems of particles, collisions, rotational motion, rotational dynamics, elasticity, fluids, gravitation, waves and sound, heat and thermodynamics. Lab PHYS 2211 must be taken concurrently.

PHYS 2202 General Physics II (Algebra Based) *4 credits*

Prerequisite: PHYS 2201
Corequisite: PHYS 2212

A continuation of PHYS 2201 that introduction into electric charge, capacitance, resistance, inductance, circuits, magnetism, optics, quantum, atomic and nuclear physics. Lab PHYS 2212 must be taken concurrently.

PHYS 2211 General Physics Lab I *1 credit*

Corequisite: PHYS 2201

Lab must be taken concurrently with PHYS 2201 General Physics I.

PHYS 2212 General Physics Lab II *1 credit*

Prerequisite: PHYS 2201

Corequisite: PHYS 2202

Lab must be taken concurrently with PHYS 2202 General Physics II.

PHYS 2221 College Physics for Scientists & Engineers I (Calculus Based) *4 credits*

Prerequisites: MATH 1141 and MATH 1142

Corequisites: MATH 2221 and PHYS 2231

An introductory, calculus based, survey course suitable for science and pre-med majors, covering the topics of measurement, space, time, vectors, one dimensional and multi-dimensional motion, dynamics, forces, work and energy, conservation of energy, systems of particles, collisions, rotational motion, rotational dynamics, elasticity, fluids, gravitation, waves and sound, heat and thermodynamics. Lab PHYS 2231 must be taken concurrently.

PHYS 2222 College Physics for Scientists & Engineers II (Calculus Based) *4 credits*

Prerequisites: MATH 2221 and PHYS 2221

Corequisites: MATH 2222 and PHYS 2232

A continuation of PHYS 2221 including topics of electric charge, electric fields, Gauss' law, electric potential, capacitance, current and resistance, basic DC circuits, introductory magnetism, Ampere's law, optics, quantum, atomic and nuclear physics. Lab PHYS 2232 must be taken concurrently.

PHYS 2231 College Physics for Scientists & Engineers Lab I *1 credit*

Corequisite: PHYS 2221

Lab must be taken concurrently with PHYS 2221 College Physics for Scientists and Engineers I.

PHYS 2232 College Physics for Scientists & Engineers Lab II *1 credit*

Prerequisite: PHYS 2221

Corequisite: PHYS 2222

Lab must be taken concurrently with PHYS 2222 College Physics for Scientists and Engineers I.

PHYS 2240 Elementary Modern Physics *4 credits*

Prerequisites: PHYS 2223/2233 and MATH 2223

This course is a basic survey of twentieth century physics revolving about the theory of relativity and the quantum. Application of quantum theory will include molecular, atomic, and nuclear problems. Relativity theory will be applied to inertial frames of reference and cosmological problems.

POLITICAL SCIENCE - PSCI

PSCI 1104 American Government (The American Democracy I) *3 credits*

This course is a survey concerning the fundamental theories of American democracy. The role of government and its relationship with its constituents will be examined at length. Particular attention will be paid to the origin of federalism along with the concepts of civil liberties and civil rights. A strong emphasis will be placed on the various interpretations of the U.S. Constitution throughout the evolution of American political thought as well. In addition, the emergence of the federal bureaucracy as a major player in U.S. public policy concerns will be discussed.

PSCI 1105 American Government (The American Democracy II) *3 credits*

This course is a survey of the fundamental theories, events and personages of American political thought. Through the lens of politics, policy, diplomacy and war, political change and its repercussions will be examined. The socialization of thought and public opinion via the major two-party political system will be discussed. Interest group theory, along with the rise of the mass media and the role they play in the political system, will be topics of study. Besides these issues, the economic policy of the United States will be traced from its Hamiltonian origins to its major transformation during the New Deal era. Lastly, the foreign and defense policy from the inception of the Republic to the present day, with its evolution from a weak de-centralized confederacy to the world's pre-eminent superpower, are to be investigated.

Practical Nursing (PRAC) | Psychology (PSYC)**PSCI 1199 Seminar** *1–9 credits*

This course will be a discussion of particular problems related to the student's chosen program and areas of special interest.

PRACTICAL NURSING - PRAC**PRAC 1200 Pathophysiology** *2 credits*

Prerequisite: Acceptance into the Practical Nursing Program.

Corequisite: BIOL 2205, MATH 1135, and PRAC 1500

This course addresses the pathophysiology of selected disorders across the lifespan and the nursing implications of this knowledge.

PRAC 1300 Pharmacology *2 credits*

Prerequisite: BIOL 2205, MATH 1135, PRAC 1200 and PRAC 1500

Corequisite: BIOL 2206 and PRAC 1600

This course introduces the nursing student to the pharmacologic practice of the licensed practical nurse.

PRAC 1500 Practical Nursing Concepts I *5 credits*

Prerequisite: Acceptance into the Practical Nursing Program.

Corequisite: BIOL 2205, MATH 1135, and PRAC 1200

This course introduces the Practical Nursing student to nursing care of the patient with normal findings.

PRAC 1600 Practical Nursing Concepts II *5 credits*

Prerequisite: BIOL 2205, MATH 1135, and PRAC 1200, and PRAC 1500

Corequisite: BIOL 2206 and PRAC 1300

This course will guide the Practical Nursing student to develop nursing knowledge and skill related to wellness, health promotion, and to care for the patient with basic chronic conditions.

PRAC 1700 Practical Nursing Concepts III *7 credits*

Prerequisite: BIOL 2205, BIOL 2206, MATH 1135, PRAC 1200, PRAC 1300, PRAC 1500, and PRAC 1600

Corequisite: ENGL 1101

This course will guide the Practical Nursing student to develop nursing knowledge and skill related to wellness, health promotion, and to care for the patient with acute and chronic conditions.

PSYCHOLOGY - PSYC**PSYC 1104 Industrial Psychology** *3 credits*

Prerequisite: None - Introduction to Psychology is recommended.

This course is designed to give broad overview of the

field of industrial psychology.

PSYC 1110 Principles of Psychology *3 credits*

This course is an overview of psychology as a science. The course considers different conceptualizations of psychology, neuro-physiological bases of behavior, perception, sensation, sleep and consciousness, human assessment, personality, psychological conflict, motivation and emotion, abnormal behavior, psychotherapy, social psychology, learning and memory.

PSYC 1111 Life Span Human Development *3 credits*

Prerequisite: PSYC 1110

A study of human development from conception to death. The course will examine theories of development and their related concepts, the impact of cultural and technological changes on stages of development, the changes in social, emotional, and cognitive functioning that occur across the lifespan, and the interrelationships between different stages of development.

PSYC 2207 Human Growth & Development *3 credits*

Prerequisite: PSYC 1110

This course will cover the growth and development of humans from conception to early adulthood.

PSYC 2225 Psychology of Addiction & Family Systems *3 credits*

Prerequisite: HSSR 1105

This course will cover a broad range of issues related to addiction including various theories of addiction, how addiction is defined, how it develops, how it is treated, and how it can be prevented. The coursework will include study of biological, developmental, motivational, familial, and cultural aspects of addiction. The course will focus on many types of addiction including alcohol addiction, drug addiction, tobacco addiction, sex addiction, eating disorders, compulsive gambling, and other emerging forms of addictive behavior. Class activities will include researching and reading journal articles, class discussion, as well as study from the assigned textbooks. This course will also focus on the impact of addiction on the family system and other relationships. Students will be exposed to the alteration of family patterns due to the presence of addiction. This course features a heavy reliance on academic research (scholarly journals) to supplement the material presented in the texts.

PSYC 2241 Educational Psychology *3 credits*

Prerequisite: PSYC 1110

This course deals with the major theories of human development and learning, motivation, instructional strategies, assessment, and examines similarities and differences in learners. The role of factors in the students' learning and development are considered.

PSYC 2275 Abnormal Psychology 3 credits

Prerequisite: PSYC 1110 or equivalent

This course is an overview of the current theories and research concerning the causes, symptoms, and treatment of various mental and behavioral disorders. Current mental health resources are examined and evaluated as to their effectiveness.

RESPIRATORY CARE - RESP

RESP 1101 Fundamentals of Respiratory Care 5 credits

Prerequisite: Acceptance into Respiratory Care Program

Corequisite: RESP 1102

This is an introductory course to establish basic clinical assessment skills needed by a respiratory care professional to initiate basic care to the patient. Patient assessment will include obtaining, evaluating, and treating abnormal findings of vital signs and pulse oximetry. The students will then learn appropriate charting methods. Low flow and high flow delivery devices for oxygen administration will also be included. The concept of utilizing therapist driven protocols and evidence based medicine will be introduced and implemented with each therapeutic modality.

The directed practice (clinical) will provide students with the hands-on experience to patients receiving respiratory therapy. Students will actively perform patient assessment and therapeutic skills acquired through lab skills evaluations under the supervision of a staff respiratory therapist at local medical facilities. Students will observe therapists performing more advanced levels of respiratory therapy.

The course is designed to include the basic principles of medical terminology. Emphasis is placed on the use of word parts including prefixes, suffixes, and root words used with a combining form to establish medical terms. Course provides an overview of body systems used in conjunction with terminology. Correct spelling, definition and pronunciation of medical terms is stressed. Communication both written and verbally between health care professionals and between the health professional and patient is emphasized.

RESP 1102 Cardiopulmonary Anatomy and Physiology 3 credits

Prerequisite: Acceptance into Respiratory Care Program

Corequisite: RESP 1101

This introductory course will provide a solid foundation in cardiopulmonary anatomy and physiology with relevant applied physiology as it relates to the profession of respiratory care. Knowledge in this course is essential for successfully completing respiratory therapy courses.

RESP 1107 Pharmacology for the Respiratory Therapist 1 credit

Prerequisite: RESP 1101 and RESP 1102

Corequisite: RESP 1110, RESP 1115, RESP 1117 and ENGL 1101

This course will provide a strong foundation of the drugs presently pertaining to the field of respiratory care. General principles of pharmacology as those applied to aerosol drug therapy, IV, and instilled drugs will be taught along with calculations of drug doses. Non-aerosol drugs such as antibiotic therapy, diuretics and cardiovascular drugs will also be covered.

RESP 1110 Respiratory Therapeutics 5 credits

Prerequisite: RESP 1101 and RESP 1102

Corequisite: RESP 1107, RESP 1115, & ENGL 1101

This course will be a continuation of oxygen therapy as discussed in RESP 1101 with the addition of bland aerosol and humidification. Administering and monitoring effectiveness of medicated aerosol therapy will be covered. Noninvasive and invasive airway clearance techniques and lung expansion devices will be presented. Students will learn the proper technique of attaining and analysis of arterial blood gases and performing bedside spirometry and full pulmonary function testing. The directed practice (clinical) will provide students with the hands-on experience to patients receiving respiratory therapy. Students will actively perform patient assessment and therapeutic skills acquired through lab skills evaluations, under the supervision of a staff respiratory therapist at local medical facilities. Students will observe therapists performing more advanced levels of respiratory therapy.

RESP 1115 Cardiopulmonary Disease 3 credits

Prerequisite: RESP 1101 and RESP 1102

Corequisite: RESP 1107, RESP 1110, & ENGL 1101

This is an intermediate course to the profession of respiratory therapy, which covers the underlying pathophysiology of cardiopulmonary diseases. A systems approach will be utilized that will emphasize abnormal physiological processes, which result in the signs and symptoms of each cardiopulmonary disorder. There will be an emphasis in diagnosis, selection and implementation of therapeutic modalities, and the role of the respiratory therapist in treatment.

RESP 2204 Pediatrics & Neonatal 3 credits

Prerequisite: RESP 1107, RESP 1110, RESP 1115, RESP 1117 and MATH 1135

Corequisite: RESP 2205 and ENGL 1101

Students will learn the pathology, pathophysiology, diagnosis, and treatment of the cardiopulmonary diseases unique to the newborn and pediatric patient population. There will be discussion of development of the fetus, high-risk pregnancies, and finally the role of respiratory therapists in labor and delivery setting.

RESP 2205 Critical Care I *6 credits*
Prerequisite: RESP 1107, RESP 1110, RESP 1115,
RESP 1117 and MATH 1135
Corequisite: RESP 2204 and ENGL 1101

This course will further student's knowledge of artificial airway management and the implementation of mechanical ventilation. Various modes and types of ventilation will be discussed. The course will conclude with the process of weaning or terminating the use of mechanical ventilation support.

The directed practice (clinical) will provide students with the hands-on experience to patients receiving respiratory therapy. Students will actively perform patient assessment and therapeutic skills acquired through lab skills evaluations, under the supervision of staff respiratory therapist at local medical facilities. Students will observe therapists performing more advanced levels of respiratory therapy.

RESP 2206 Critical Care II *7 credits*
Prerequisite: RESP 2204 and RESP 2205

This is an advanced course to the profession of respiratory therapy which covers the underlying pathology and pathophysiology and management of respiratory failure, sepsis, shock, trauma, and cardiovascular collapse. This course is designed to provide a broad understanding of how to manage patients in the intensive care units utilizing ventilators, pharmacology, and fluid filled monitoring systems by indwelling catheters. In addition, students will be prepared to perform hemodynamic and metabolic measurements, interpret and apply data, and learn advanced techniques of cardiopulmonary life support.

The directed practice (clinical) will provide students with the hands-on experience to patients receiving respiratory therapy. Students will actively perform patient assessment and therapeutic skills acquired through lab skills evaluations under the supervision of a staff respiratory therapist at local medical facilities. Students will observe therapists performing more advanced levels of respiratory therapy.

**RESP 2209 Respiratory Care in
Alternative Settings** *1 credit*

Prerequisite: RESP 2206
Corequisite: RESP 2210 & RESP 2223

The focus of this lecture course is to inform students of alternative settings for providing respiratory care, rehabilitation, and related testing. Home care/ home medical equipment, pulmonary and cardiac rehabilitation, and hyperbaric oxygen therapy will all be covered. Students will also be exposed to various levels of management in the respiratory profession.

RESP 2210 Capstone *2 credits*
Prerequisite: RESP 2206
Corequisite: RESP 2209 and RESP 2223

This is an advanced course to the profession of respiratory care which includes a comprehensive review of the respiratory care curriculum to prepare students for their credentialing examinations. Students will be expected to pass mock certification and registry examinations, as well as the CWRRT SAE in order to pass this course.

RESP 2223 Capstone Clinical *5 credits*
Prerequisite: RESP 2206

Corequisite: RESP 2209 and RESP 2210

The clinical time will allow the student to continue their hands on learning. Students will actively perform therapeutic skills they have acquired through lab skills evaluations, under the supervision of a staff respiratory therapist at local medical facilities. In addition, students will be able to choose an area of respiratory care that they wish to specialize in. This can involve gaining further knowledge and skills in an area they have already worked, or an ancillary service like home care, polysomnography, pulmonary function testing, stress testing, etc.

REAL ESTATE - REST

REST 1171 Principles of Real Estate *3 credits*

This is an introductory course is for the real estate major, and to the industry. It provides an overview of law, finance, appraisal and brokerage, and a more in-depth study of sales agent principles and practices. This course is required for the Ohio licensing exams.

REST 1173 Real Estate Law *3 credits*

This course teaches Ohio and federal law as it relates to the real estate industry. This course is required for the Ohio licensing exams.

REST 1174 Real Estate Math *3 credits*

This course provides the student with a comprehensive real estate math program with a focus on real life application.

REST 1190 Real Estate Licensing Review *2 credits*

Prerequisite: REST 1171, REST 1173, REST 2271, and REST 2272 OR REST 1171, REST 1173, REST 2275

This online course is designed as a review tool for the Real Estate student in preparation for the Ohio Real Estate Salesperson's License examination, to aid students in recalling: Principles of Real Estate; Real Estate Law; Real Estate Appraisal; and Real Estate Finance. It affords the student practice and improvement in test-taking skills.

REST 2271 Real Estate Finance *2 credits*

This course is a study of the role of financing in the real estate industry, ranging from nation-wide cycles of the finance market to the particularities of PMI, Fannie Mae, and FHA loans. This course is required for the Ohio licensing exams. **Attendance at all sessions is mandatory by Ohio law (Ohio Department of Commerce, Division of Real Estate and Professional Licensing). Failure to attend any session is an automatic fail.**

REST 2272 Real Estate Appraisal *2 credits*

This course focuses on the theory and methodology of real estate appraisal. Contextual materials, such as market analysis and mathematical study, and a detailed study of the three basic appraisal techniques are included. This course is required for the Ohio licensing exams.

REST 2273 Real Estate Seminar *2 credits*

This course has a dual focus. As the capstone course for the real estate concentration, REST 2273 offers students an opportunity to review all course material covered in preceding REST courses. In addition, this course pushes students to analyze and understand the current real estate environment, as well as to make realistic projections of future trends.

REST 2274 Real Estate Brokerage *3 credits*

This course provides an overview of real estate brokerage operations.

REST 2275 Real Estate Finance & Appraisal *3 credits*

REST 2275 is a study of the role of financing in the real estate industry, ranging from nation-wide cycles to the finance market to the particularities of PMI, Fannie Mae, and FHA loans. REST 2275 also focuses on the theory and methodology of real estate appraisal. Contextual materials, such as market analysis and mathematical study, and a detailed study of the three basic appraisal techniques are included. This course is required for the Ohio licensing exams.

REST 2276 Property Management *3 credits*

This course offers an overview of the property management profession. The course explores daily issues facing practitioners, such as maintenance, accounting, administrative, the role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, reports, habitability laws, the Fair Housing Act, and legal activities. In addition, up-to-date content on federal regulations, such as civil rights, fair housing, ADA issues, and environment concerns are covered.

SOCIOLOGY - SOCl**SOCI 1107 Introduction to Diversity** *3 credits*

This course focuses on the similarities and differences among racial, ethnic, cultural and minority populations in the United States. The goal of this course is to provide an introductory sociological perspective of diversity. Basic theories of race, ethnic, cultural, and gender relations will be examined as well as the consequences of conflict, prejudice, and discrimination in the United States.

SOCI 1120 Introduction to Anthropology *3 credits*

An eclectic survey of various cultures both historic and contemporary. The focus of the course is to furnish, through the examination and illustration of anthropological concepts, insights into current American society.

SOCI 1121 Cultural Geography *3 credits*

A systematic survey of human global settlement, their interaction with and impact on the environment, and the socio-historical expansion of spatial, cultural, political, and economic activities.

SOCI 1150 Marriage & Family *3 credits*

The purpose of the course is to provide the student with the basic principles and perspectives needed for the consideration of factors that affect dating, marriage, divorce, life span, issues and alternatives to traditional family roles and relationships.

SOCI 1170 Introduction to Sociology *3 credits*

This course is a study of human society with emphasis in basic sociological concepts, principles and methods. Also included is the study of culture, socialization, nature of groups, deviance, sexuality, and social inequalities.

SOCI 1199 Seminar *1-6 credits*

This course will be a discussion of particular problems related to chosen program and areas of interest.

SOCI 2201 Personal & Human Relations *3 credits*

This course presents a framework for interpersonal relationships both personally and professionally.

SOCI 2230 Social Problems *2 credits*

This course is a comprehensive sociological inquiry into the nature and prevalence of modern social problems. This course will explore the origins, current social implications, and possible solutions for each of these problems.

SOCI 2231 Juvenile Delinquency *2 credits*

This course will analyze the juvenile justice system by providing information regarding philosophical theories of delinquency, the development of case law, the juve-

nile court process, rehabilitation approaches and current issues affecting youth.

SOCI 2232 The Criminal Justice System 3 credits

This course will provide an overview of the criminal justice system by examining legal and political institutions as well as the behavioral nature of crime. The role of law enforcement, the courts, and corrections will be analyzed through the development of case law and practical application.

THEATER - THEA

THEA 1101 Acting Studio 3 credits

Students will participate as actors in a Southern State Community College theatre production. An audition is required. This course may be taken three times for credit (with permission of instructor/director) may be repeated thereafter without credit.

THEA 1104 Technical Studio 3 credits

Students will participate as stage managers or crew members (set, properties, costumes, lighting, sound, house, dramaturgy, etc.) in a Southern State Community College theatre production. An application/interview is required. This course may be taken three times for credit (with permission of instructor/director) may be repeated thereafter without credit.

THEA 1121 Introduction to Theatre 3 credits

This course is a broad overview of the theater. It includes a basic view of the art form itself, audience and criticism, the play, the history and development of theater as well as an overview of the processes involved in production. Trends in theatre today will also be explored.

THEA 1131 Acting I 3 credits

This course is an introductory study of acting and the actor. Emphasis will be placed on developing the actor's instrument (voice and body), ensemble work, improvisation, pantomime, and monologue/scene performance. Various acting techniques and styles will be explored. Students will also learn and utilize basic acting terminology.

THEA 1132 Acting II 3 credits

Prerequisite: THEA 1131 or Permission of Instructor

This course is a continuation of the study of acting and the actor. Emphasis will be placed on developing the actor's instrument (voice and body), ensemble work, improvisation, pantomime, monologue and scene performance. Students will also explore different acting techniques and styles. Acting and stage vocabulary will be reinforced.

THEA 1140 Stagecraft 3 credits

This course is an introduction to scenic design and construction. Emphasis will be placed on practical application of knowledge and skills in the following areas: safety, tools, materials, construction, painting, and stagehand duties. Costumes, lighting, and sound will also be explored to some degree.

THEA 1150 Stage Makeup 3 credits

This course focuses on the history of makeup and basic approaches to applying makeup for the stage and screen. Makeup supplies will be studied as well as techniques for corrective, old-age, character, stylized and special effects makeup.

THEA 2204 Advanced Theatre Studio 3 credits

Prerequisite: Permission of Instructor

Students will participate as actors, designers or crew members in a Southern State Community College Theatre production. Areas of production include: acting, stage management, dramaturgy, publicity, house, lighting, sound, set, props, costumes and makeup. An audition or interview is required. This course may be taken three times for credit (with permission of instructor/director) and may be repeated thereafter without credit.

THEA 2220 Script Analysis 3 credits

Prerequisites: THEA 1121 & ENGL 1101

This course focuses on play structure, research, analysis, and bringing the script to life on the stage. Plays from several periods and genres will be examined from the point of view of the playwright, dramaturg, director, designer/technician, and actor.

THEA 2231 Advanced Acting 3 credits

Prerequisite: THEA 1132 or Permission of Instructor

This course is a continuation of the study of acting and the actor. Emphasis will be placed on developing the actor's instrument (voice and body), ensemble work, improvisation, pantomime/mime, monologue, and scene performance. Students will also explore different acting techniques and styles. Acting and stage vocabulary will be reinforced. This course may be taken twice for credit (with permission of instructor); may be repeated after without credit.

