

EVS-2793

Sources & Effects of Air Pollution

4 Credits

Examines the common sources of air pollution and the effect of this pollution on human and ecosystem health, with an emphasis on how pollutants are produced and transported. The engineering aspects of combustion and transportation related emissions and the basic principles of air pollution meteorology will also be examined.

Prerequisite: EVS-1001

EVS-2891

Hydrology & Quality of Water Resources

4 Credits

A comprehensive survey of water resources considering both quantity and quality. Emphasis is on the standard techniques of sampling and monitoring especially for ground water. The hydraulic characteristics of water are also discussed. Analytical procedures used in field investigations and modeling studies are covered. A separate laboratory time is provided for on-campus and field activities.

Prerequisites: CHM-1025, CHM-1025L and MAC-1102

EVS-2893C

Environmental Sampling & Analysis I

5 Credits

Introduces the theory and methods of analysis of certain inorganic chemical substance and physical properties of soil. Techniques of sampling preparation for testing, and testing and analysis will be covered. Approved standards for analysis will be examined and utilized for laboratory testing. Laboratory exercises will include sample collection, testing and analysis.

EVS-2894C

Environmental Sampling & Analysis II

5 Credits

Introduces the theory and methods of analysis of inorganic chemical substances of water. Techniques of sampling, preparation for testing, testing and analysis will be covered. Federal and state approved standards for analysis will be examined and utilized for laboratory testing. Laboratory exercises will include sample collection, testing and analysis.

EVS-2895C

Environmental Sampling & Analysis III

5 Credits

Introduces the theory and methods of analysis of metals, organic load and biological test methods associated with water and wastewater. Techniques of sampling, preparation for testing and analysis will be covered. Quality control methods are also covered. Laboratory exercises will include sample collection, testing and analysis.

Prerequisite: EVS-2894C

EVS-2939

Water Treatment Capstone Course

3 Credits

This course is the final preparation for students to pass state certification exams if the student chooses to work at a municipal drinking water facility. Drinking water laws are covered as well as all of the reviews necessary to prepare the student for obtaining a job in the industrial or municipal sectors. Many case studies, process flows and problem solving workshops are provided.

Prerequisites: EVS-2171, EVS-2170 and EVS-2160

Corequisites: EVS-2164 and EVS-2162

Credit for this course does NOT apply to the Associate in Arts degree.

EVS-2942L

Environmental Technology Practicum

3 Credits

Focuses on hands-on experience in environmental sampling and analysis methods by assigning students to agencies or businesses for 24 hours per week. Emphasis will be to gain practical experience in protocols, methods

and use of equipment in an applied setting; includes the possibility of outdoor work and mildly strenuous skills such as carrying and lifting.

Prerequisite: EVS-2893C

FAS-1012C

Aquacultural Organisms

3 Credits

The field of aquaculture uses a variety of organisms to culture from fresh water fish, to marine fish, plants, shrimp, lobster, and many others. In this course, the students will learn about the variety of organisms that can be cultured and the methods learned to do so.

Prerequisites: College level reading and writing skills are required.

FAS-1401L

Aquacultural Laboratory Techniques

3 Credits

The field of aquaculture uses a number of laboratory techniques to assist the technician in the treatment of fish, identification of fish, breeding techniques, raising of fish, feeding, and a whole host of controls on the artificial environment of the aquarium. This laboratory teaches the techniques used in the field.

A special fee will be charged for this course.

Prerequisites: College level reading and writing skills are required.

FAS-1404C

Aquacultural Field Techniques

3 Credits

Focuses on the practical aspects of establishing a fish farm, setting up the ponds, maintaining environmental conditions, and harvesting the fish.

A special fee will be charged for this course.

Prerequisites: College level reading and writing skills are required.

FAS-2240C

Aquacultural Nutritional Techniques

3 Credits

Focuses on the nutritional aspects of fish. Fish digestive anatomy, nutrition requirements, metabolic rates, diets, and available food sources will be covered.

Prerequisites: College level reading and writing skills are required.

FAS-2253

Aquacultural Disease Processes

3 Credits

Studies the disease processes that affect fish that includes bacterial diseases, infections, viruses, fungi, parasites, immune diseases, nutritional diseases and environmental diseases.

Prerequisites: College level reading and writing skills are required

Corequisite: FAS-2253L

FAS-2253L

Aquacultural Disease Processes Lab

1 Credit

Designed to teach laboratory techniques to identify disease causing organisms and to use some of the treatment methodologies.

A special fee will be charged for this course.

Prerequisites: College level reading and writing skills are required

Corequisite: FAS-2253

FAS-2263C

Aquacultural Reproductive Techniques

3 Credits

Focuses on the principles of reproductive biology for the aquaculture industry. The primary emphasis will be on freshwater fish reproduction, however, other aquaculture organisms will be discussed.

Prerequisites: College level reading and writing skills are required

FAS-2353C**Aquaculture Management Practices**

3 Credits

Aquaculture operations are businesses. This course teaches the basic operations of the business side, showing profit and loss statements, marketing, how to manage people, and the general principles of how to manage an aquaculture establishment. In addition, decision-making tools for the manager will be presented that include the use of computers and records management.

Prerequisites: College level reading and writing skills are required.

FAS-2941L**Aquaculture Field Experience I**

3 Credits

Focuses on the hands-on experience that can be gained from being in the field at aquaculture facilities in Hillsborough County. Students rotate through a variety of aquaculture operations to gain a broad spectrum of experiences that can only be gained from actual field work. This is the first of the four field experience courses.

Prerequisites: College level reading and writing skills are required.

FAS-2942L**Aquaculture Field Experience II**

3 Credits

Focuses on the hands-on experience that can be gained from being in the field at aquaculture facilities in Hillsborough County. Students rotate through a variety of aquaculture operations to gain a broad spectrum of experiences that can only be gained from actual field work. This is the second of the four field experience courses.

Prerequisite: FAS-2941L

FAS-2943L**Aquaculture Field Experience III**

3 Credits

Focuses on the hands-on experience that can be gained from being in the field at aquaculture facilities in Hillsborough County. Students rotate through a variety of aquaculture operations to gain a broad spectrum of experiences that can only be gained from actual field work. This is the third of the four field experience courses.

Prerequisite: FAS-2942L

FAS-2944L**Aquaculture Field Experience IV**

3 Credits

Focuses on the hands-on experience that can be gained from being in the field at aquaculture facilities in Hillsborough County. Students rotate through a variety of aquaculture operations to gain a broad spectrum of experiences that can only be gained from actual field work. This is the last of the four field experience courses.

Prerequisite: FAS-2943L

FFP-1000**Introduction to Fire Science**

3 Credits

Provides an overview of the fire protection field, with an emphasis on fire protection agencies, equipment, building design & construction and fire fighting tactics. Topics include fire suppression & equipment, characteristics and behavior of fire, fire hazard properties of ordinary materials, extinguishing agents and public relations.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-1304**Aerial Operators Course**

3 Credits

Covers driving laws and techniques, construction and operation of ladder trucks, aerial platforms and apparatus maintenance.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-1506**Fire Prevention and Investigation**

3 Credits

Deals with the principles of prevention and investigation, a study of the fire hazards of various occupancies, a review of fire prevention codes, OSHA requirements, surveying and mapping procedures. Topics include recognition of hazards, engineering and enforcement of solutions, public relations and presentation of arson evidence.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-1710**Company Officer**

3 Credits

Designed to assist officers in solving problems and situations encountered in today's changing fire service. The curriculum includes a review of fire department organization and administration, management theory, leadership, communication, motivation and group dynamics.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-1810**Fire Fighting Tactics and Strategy I**

3 Credits

Involves a review of fire chemistry, equipment, manpower, strategies, methods of attack and pre-planning fire problems.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2120**Fire Service Building Construction**

3 Credits

Building construction topics include identifying hazards from assault by fire and gravity, how building construction can influence fire spread, fire confinement or structural collapse, and many other life safety issues.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2151**Fire Service Information Management**

3 Credits

Emphasis on the development and implementation of effective information services systems, strategic planning documentation and technology.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2280**Management of EMS for Fire Science**

3 Credits

Provides a framework for the design and development of an emergency medical program. Focuses on current issues facing emergency medical services today.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2303**Fire Service Hydraulics**

3 Credits

This course will cover the principles of fire service hydraulic formulas and calculations to determine pump pressures.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2305
Apparatus Operations

3 Credits

This course covers emergency vehicle driving fire ground pump operations including the use of master stream devices, pump construction and pump operational applications.

Prerequisite: FFP-2303

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2401
Hazardous Materials I

3 Credits

On site operational practices for hazardous materials in compliance with CFR 1910.120 standards.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2402
Hazardous Materials II

3 Credits

On site operational practices for hazardous materials in compliance with CFR 1910.120 standards.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2484C
Hazardous Materials Scene Management

3 Credits

This course will focus on the strategies and safe procedures for mitigating the danger at a hazardous materials incident. The course will meet the requirements set forth by OSHA 1910.120 and CFR 1910.120.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2490C
Chemistry of Hazardous Materials

3 Credits

This course focuses on the chemistry knowledge required to evaluate the potential hazards and behaviors of materials considered hazardous. It examines the reasons for the chemical behavior of hazardous materials and is designed to improve decision making, safety operations, and handling. The course will meet the requirements set forth by OSHA 1910.120 and 40 CFR 1910.120.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2510
Codes and Standards

3 Credits

This course is designed to familiarize inspectors with the basic units of NFPA 101. This course includes statewide fire prevention code NFPA 1.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2521
Construction Documents & Plans Review

3 Credits

This curriculum is designed to have the student assimilate information contained in working drawings and specifications as they relate to the fire inspector. Topics include the interpretation of conventional graphic communication, symbols, abbreviations, principles of technical projection as well as a review of construction arithmetic and geometry.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2540
Private Fire Protection Systems

3 Credits

The study of private fire protection and detection systems, such as sprinkler and standpipe systems, chemical extinguishing systems, detection systems and devices. Each system is discussed as to its construction, preventive maintenance and individual uses.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2590
Management of Fire Prevention Programs

3 Credits

Focuses on the ability of chief officers to effectively plan and execute fire prevention investigation functions.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2604
Cause and Origin

3 Credits

This course is designed to enhance the fire investigators ability to detect and determine the origin and cause of a fire. Specific topics include fire behavior review, investigation ethics, construction, ignition sources, reading fire patterns and scene reconstruction. Special topics on electrical fire investigation, woodland fires, vehicle fires, mobile home fires, RV and boat fires and scene documentation.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2701
Organization/Command Fire Science Operations

3 Credits

Focuses on identifying the organizational structure, training, and the application of the incident command system to volunteer programs.

Credit for this course does NOT apply to the Associate in Arts degree.

FFP-2720
Executive Fire Officer Leadership/Personnel Management

3 Credits

Provides a framework to identify the required skill and abilities necessary for administrative effectiveness and personnel management.

FFP-2730
Fire Service Organizational Theory

3 Credits

Provides a medium to relate current organizational theory to practical application in the fire service.

FFP-2740
Fire Service Course Delivery

3 Credits

Draws from many recognized authorities in exploring the methods and mechanics of imparting information, with an emphasis on techniques and multi-media materials for communication of ideas and strengthening the retention of skills obtained in the learning process.

FFP-2741
Fire Service Course Development

3 Credits

Emphasis on instructional design, course development and training manuals. Students develop their own course by establishing goals, objectives and evaluation criteria.

FFP-2750
Financial Management in Fire Service

3 Credits

Designed to assist fire executives in the planning and managing of a fiscal program.

FFP-2790
Analysis of Fire Department Operations

3 Credits

Designed for upper level management and officers who will direct operations of maximum involvement at fire or emergency incidents within their community.

FFP-2791**Interpersonal Management in Fire Science**

3 Credits

Provides a critical self assessment of individual managerial techniques and the implementation of a successful human resource development plan.

FFP-2801**Incident Command for Disaster Management**

3 Credits

Focuses on the command and control of large scale disasters. Emphasis on inter-agency relationships, planning and implementation of a disaster plan, practice drills, and mutual aid agreements.

FFP-2811**Fire Fighting Tactics and Strategy II**

3 Credits

Covers advanced fire fighting techniques, with an emphasis on incident command systems.

FFP-2830**Incident Command/Major Fire Dept Operations**

3 Credits

Focuses on the command and control for fire officers charged with a greater alarm fire or incident, by emphasizing preplanning, size-up, ICS and safety.

FIL-1000**Introduction to Film Studies**

3 Credits

This course will provide an introduction to the basic terminology, techniques, and contributions of filmmaking and will explore major issues in the history of the moving image, from its invention at the end of the 19th century to the present day.

Prerequisites: College level reading and writing skills are required.

FIL-1420C**Motion Media I: Recording and Interpreting Reality**

3 Credits

Provides a basic understanding of motion media production technology, equipment operation, terminology, and techniques. This will include an introduction to the camera, and to mis en scene for documentaries. Students apply the essentials of creative filmmaking in both studio and location settings.

Prerequisites: CGS-1000 and FIL-1000

FIL-1432C**Motion Media II: Space & the Environment**

3 Credits

A continuation of FIL 1201C with emphasis on developing camera techniques in space and the environment. Students will undertake more advanced projects in motion media to further works both technically and conceptually.

FIL-2010**Films of Fantasy and the Imagination**

3 Credits

This course focuses on the art of the created motion picture image, which springs from the imagination with the help of tools such as animation, optical printing and digital construction and manipulation. This approach contrasts with the more traditional production of moving images, which focuses on and photographs aspects of real and existing objects, whether these are actors and sets or the world of nature. This course concerns films which spring from the imagination, literally from the mental pastures of human dreams, from the subconscious rather than the conscious mind.

Prerequisites: FIL-1000 or FIL-2030

FIL-2030**History and Future of Motion Pictures**

3 Credits

This course explores the history of the motion media, including important films, techniques, and styles from 1900 to the present. It also surveys the industrial and social developments of cinema from the point of view of the artist.

FIL-2905**Directed Independent Study: Film**

3 Credits

This course is designed to establish a framework for further self-learning in various areas of motion media for the advanced student. The student will shape the course to fit their needs by planning activities and preparing a contract coordinated with a member of the motion media faculty. The contract will outline a specific project, or a particular set of goals and requirements that the student wishes to achieve. The contract must be satisfactorily completed and reviewed by the assigned faculty member.

Prerequisite: FIL-1000

FIL-2931**Careers in Film and Video**

1 Credit

Students are exposed to the full-range of careers in film, video and broadcasting in addition to learning about resumes, internships, interviews and portfolios.

FIN-1100**Personal Finance**

3 Credits

Focuses on charting financial objectives, with an emphasis on budgeting, savings, Credit, loans, insurance, estate planning, taxes, investments and real estate.

FIN-2001**Principles of Finance**

3 Credits

This course is an introduction to the fundamentals of corporate finance. It will take the student through corporate financial structures, monetary systems, financial instruments, financial statement analysis, interest and the time-value of money.

Prerequisite: APA-1111 or higher level accounting. College level reading, writing, and math skills are required.

FIN-2051**International Financial Management**

3 Credits

Offered as a required course for the International Business student to provide the basic concepts and principals of international finance in order to understand the nature of international banking, financial services, lending concepts and practices, capital budgeting, financial instruments, and systems of international business operations and control.

Prerequisites: FIN-2001. College level reading and writing skills are required.

FNR-1001**Natural Resource Management**

3 Credits

An introduction to the ecology and conservation of natural resources of native lands, concentrating on Florida ecosystems. Emphasis will be given toward management techniques for the conservation of interactive networks and ecosystems on which species depend. Topics include: land use, ecosystems management, conservation and restoration practices, wildlife and forest management, and prescribed fire management.

Prerequisites: EVR-1328. College level reading and math skills are required.

FOS-1201**Sanitation and Safety Management**

2 Credits

Explores the scientific rationales of sanitation and safety practices which are enforced for group protection in institutions and food service facilities. Causes of food-borne illnesses will be identified, and preventative techniques by adhering to sanitation standards will be demonstrated. Methods of accident and fire prevention will be emphasized.

FOS-2521**Introduction to Seafood Processing**

3 Credits

Provides a comprehensive overview of food science and technology, and an understanding of how raw aquacultural commodities and seafood are converted into consumer products. Topics include: food constituents, food deterioration and spoilage, food laws and regulations, methods used to preserve and process foods, and examples of processing and preservation of seafood. Class will include field trips to local seafood processing plants. This class is part of the curriculum for the C.A.S.S. International Aquaculture students. Others can take course with the instructor's approval.

Credit for this course does NOT apply to the Associate in Arts degree.

FRE-1120**Elementary French I**

4 Credits

Covers the fundamentals of listening, reading and writing the language, while developing an understanding of the French culture. Native speakers of French are not allowed to enroll in this course. These students may see their instructor to take the credit by exam test.

Prerequisites: College level reading and writing skills are required.

FRE-1121**Elementary French II**

4 Credits

Enhances the skills learned in FRE 1120.

Prerequisite: FRE-1120 or an equivalent course

FSS-1223**Food Preparation for Managers**

4 Credits

Examines the chemical and physical changes that take place as food is processed. hands-on experience in the cookery laboratory is included.

FSS-1246C**Food Specialties I (Baking)**

3 Credits

Covers the fundamentals of baking through the preparation of baked goods, with an emphasis on the proper use and care of equipment, sanitation, hygienic work habits and their conformance with health laws.

FSS-1248C**Food Specialties II (Garde Manager II)**

3 Credits

Stresses basic Garde Manager principles and the functions and duties of the department as it relates to other kitchen operations. Emphasis is on specialty work which includes ice carving, buffet decorations, equipment and area planning.

FSS-1249C**Food Specialties III (Garde Manager II)**

3 Credits

Focuses on advanced Garde Manager techniques such as aspics, pates, galantines and buffet table arrangements with an emphasis on equipment and organization.

FSS-1500**Food & Beverage Control**

3 Credits

Covers inventory control procedures, the determination of inventory cost and efficient space utilization with an emphasis on preparation of daily cost reports and monthly cost summaries.

FSS-1941**Food Practicum I**

2 Credits

A coordinated work-study course involving class work and field experience. Objectives determined by the student and teacher-coordinator will be used to evaluate the student.

FSS-1942**Food Practicum II**

2 Credits

A coordinated work-study course involving class work and field experience. Objectives determined by the student and teacher-coordinator will be used to evaluate the student.

FSS-1943**Food Practicum III**

2 Credits

A coordinated work-study course involving class work and field experience. Objectives determined by the student and teacher-coordinator will be used to evaluate the student.

FSS-1944**Food Practicum IV**

2 Credits

A coordinated work-study course involving class work and field experience. Objectives determined by the student and teacher-coordinator will be used to evaluate the student.

FSS-1945**Food Practicum V**

2 Credits

A coordinated work-study course involving class work and field experience. Objectives determined by the student and teacher-coordinator will be used to evaluate the student.

FSS-1946**Food Practicum VI**

2 Credits

A coordinated work-study course involving class work and field experience. Objectives determined by the student and teacher-coordinator will be used to evaluate the student.

FSS-2110**Food Plans & Menu Preparation**

3 Credits

Emphasizes the preparation of a nutritionally balanced cycle menu, portion control, use of leftovers and waste control.

FSS-2120**Food Purchase & Storage**

3 Credits

Focuses on volume food purchasing, with an emphasis on the legal obligations of vendors and vendees, receiving controls and storing & dispersal.

Prerequisite: FSS-2110

**FSS-2271
Beverage Management & Service**

3 Credits
 Focuses on the purchase, storing and serving of wine and related beverages. Topics include identifying wines, liqueurs, aperitifs and other distillates.
 Prerequisites: College level reading and writing skills are required.

**GCO-2230
Pumping and Irrigation Systems**

3 Credits
 This course is designed to allow students to focus on applying water to horticulture crops. Topics will include pumps, water resources, irrigation installation, pipe types and sizing, wire sizing, surge pressure, backflow, back siphon protection, valve locations, selection, sprinkler head location, geographical regions, pumps and pumping, water pressure calculation, cost estimation, troubleshooting and maintenance.

**GEB-1011
Introduction to Business**

3 Credits
 Presents an overview of the practices and procedures of the business world, with an emphasis on career selection. Topics include business institutions, problems, organizations and business deals.

**GEB-1949
Business Internship**

3 Credits
 A coordinated work-study course involving class work and field experience. Objectives determined by the student and teacher-coordinator will be used to evaluate the student. This course may be repeated six times for credit.
 Credit for this course does NOT apply to the Associate in Arts degree.

**GEB-2350
Introduction to International Business Essentials**

3 Credits
 Prepares students for entry-level positions in international business; for those in the international business environment to broaden their knowledge and to acquire additional skills required for career advancement; and to provide academic opportunities for understanding international business in the global economy of the world.
 Prerequisites: GEB-1011. College level reading and writing skills required.

**GEB-2361
Introduction to International Business Policy Issues**

3 Credits
 Prepares students for entry-level positions in international business; for those in the international business environment to broaden their knowledge and to acquire additional skills required for career advancement; and to provide academic opportunities for understanding policy development and planning in international business in the global economy of the world.
 Prerequisites: GEB-1011, GEB-2350 and FIN-2051
 College level reading and writing skills required.

**GER-1120
Elementary German I**

4 Credits
 Covers the fundamental of reading, writing, listening and speaking the language while developing an understanding of the German culture. Native speakers of German are not allowed to enroll in this course. These students may see their instructor to take the credit by exam test.

**GER-1121
Elementary German II**

4 Credits
 Enhances the skills taught in GER 1120
 Prerequisite: GER-1120 or an equivalent course

**GEY-1000
Issues of Aging**

3 Credits
 Explores the issues related to the aging process and the later stages of life including: retirement, psychosocial concerns and community services for the elderly.
 Prerequisites: College-level Reading and Writing skills

**GIS-1041
Survey/Geographic Info Systems & Global Positioning Systems**

1 Credit
 Designed to acquaint students with the uses and applications of Geographic Information Systems (GIS) and Global Positioning Systems (GPS). Methods and techniques used in GIS and GPS will also be reviewed.
 Credit for this course does NOT apply to the Associate in Arts degree.

**GIS-2040
Fundamentals of Geographic Information Systems**

3 Credits
 Designed to acquaint students with the history, operation and applications of geographic information systems (GIS). This course will cover all aspects of geographic information systems including data collection, preprocessing, data management and data analysis as well as the application of these systems.
 Credit for this course does NOT apply to the Associate in Arts degree.

**GLY-1010
Physical Geology**

3 Credits
 Covers basic geology concepts and principles. topics include origin and structure of the earth, processes involved in shaping the earth's crust, the nature and classification of earth materials, and the dynamic interactions of the lithosphere with the hydrosphere and atmosphere that produce characteristic landforms.
 Prerequisites: College level reading, writing and math skills are required.
 Corequisite: GLY-1010L

**GLY-1010L
Physical Geology Laboratory**

1 Credit
 This course accompanies GLY 1010.
 A special fee will be charged for this course.
 Prerequisites: College level reading, writing and math skills are required.
 Corequisite: GLY-1010

**GRA-1111C
Graphic Design**

3 Credits
 This course is an introductory class which will introduce students to the design applications relevant to graphic design. Students with little or no experience on a MAC or PC will become familiar with the operating systems and will be able to use the computer to bring their images into the computer and be able to function with proficiency in file management, input and output, design applications, and creating backups of their work.

GRA-1156C**Graphic Design: Fundamentals**

3 Credits

This course is a fundamental graphic design class for students with experience on a MAC or PC. The students will produce solutions for print media and web media. The students will also gain skills in determining the difference between raster and vector based media by using specific design applications. During the course input and output devices will be used to gather and produce media. Process design will be introduced to the student.

Prerequisite: GRA-1111C

GRA-2173C**Graphic Design: Implementation**

3 Credits

This course is an implementation course for students experienced on a Mac or PC and in design applications. The students will gain knowledge on how to implement their skill set into real world situations and introduce them to using a design pipeline for all of their high fidelity (form) based designs. This course will also introduce the student to printing out large scale media using design applications.

Prerequisite: GRA-1156C

HFT-1000**Lodging Management**

3 Credits

Presents introductory material on the hotel-motel industry, with an emphasis on guest room facilities and services, space utilization and guest records.

HFT-1410**Front Desk Procedure**

3 Credits

Field work in front-desk operations and guest relations. (80 hours, as scheduled by the instructor)

HFT-2210**Management of Hospitality Personnel**

3 Credits

Covers techniques for supervising, motivating and instructing hourly wage employees, writing job descriptions and developing work simplification studies and job audits.

Prerequisites: College level reading, writing and math skills are required.

HFT-2530**Merchandising/Advertising in Hospitality**

3 Credits

Includes the planning of a sales campaign, display of food items, the physical appearance and condition of equipment and property, community relations and interactions of employees and customers.

HFT-2600**Hospitality Law**

3 Credits

Presents a study of the laws, codes and regulations applicable to the hospitality industry.

HFT-2750**Convention Management & Service**

3 Credits

Defines the scope and various segments of the convention market, explains what is required to meet individual needs, and explores methods and techniques that lead to better service.

HFT-2840**Maitre D' & Dining Room Service**

3 Credits

Presents introductory material on all types of dishes, how and when they are used. Includes the duties of waiters and waitresses, personal hygiene and appearance, basic rules and procedures for serving, accident prevention, familiarization with menu items, banquet service & table settings, and French, Russian and English buffet and smorgasbord service. Ninety hours of work experience in the food laboratory are included.

HFT-2941**Hospitality Management Internship**

3 Credits

A work-based learning experience for hospitality management students. Student intern placements will be dependent upon student preference and availability of participating hospitality institutions. The intern is to complete a minimum of 125 hours of internship experience during the term of enrollment.

HIM-1000**Medical Record Content**

1 Credit

Covers the basics of medical record content and usage. Provides an understanding of patient record requirements, access, and confidentiality. Includes analysis of the medical record, emphasizing legal ramifications, ethics, proper use, and confidentiality issues.

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-1430**Principles of Disease with Anatomy I**

4 Credits

Course content includes: etiology, anatomy, pathophysiology, treatment, and complications of human diseases. Focuses on the anatomy and the disease process of the body systems. Emphasizes general principles, classifications, causes and treatments of diseases, illnesses, and injuries. Common Laboratory and Diagnostic Tests are included.

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-1436**Principles of Disease with Anatomy II**

4 Credits

A continuation of Principles of Disease with Anatomy I. Course content includes: etiology, anatomy, pathophysiology, treatment, and complications of human diseases. Focuses on the anatomy and the disease process of the body systems. Emphasizes general principles, classifications, causes and treatments of diseases, illnesses and injuries. Common laboratory and diagnostic tests are included.

Prerequisite: HIM-1430

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-1440**Pharmacology**

2 Credits

Course is designed for students who will not be administering medications but require a general knowledge of classifications, common usage, and therapeutic indications of commonly prescribed medications.

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2220**Basic ICD-9-CM Coding**

1 Credit

An introduction to basic coding principles, characteristics and conventions using the ICD-9-CM coding system. Student will learn to use the Alphabetic Index to select correct codes from the Tabular listing to numerically identify diseases and procedures.

Prerequisite: HSC-1531

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2221
Intermediate ICD-9-CM Coding

3 Credits

Coding principles, characteristics, and conventions of coding using the ICD-9-CM coding system. Includes coding principles and guidelines using the Alphabetic Index and Tabular list for diseases and procedures.

Prerequisite: HIM-2220

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2253
Basic CPT Coding

1 Credit

Introduces basic coding principles, characteristics, and conventions of coding, using the Physicians' Current Procedural Terminology (CPT). Focuses on evaluation and management coding, unbundling, starred procedures, separate procedures, the global period, and modifiers.

Prerequisite: HSC-1531

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2254
Intermediate CPT Coding

3 Credits

A continuation of basic coding principles, characteristics, and conventions of coding, using the Physicians' Current Procedural Terminology (CPT) coding nomenclature.

Prerequisites: HSC-1531, HIM-2220, HIM-1430, HIM-1436, and HIM-2253

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2271C
Medical Billing and Insurance I

3 Credits

Introduction to health insurance claims processing, carrier requirements, and state and federal regulations. Billing for physician office, hospital and ambulatory surgery services. Topics that are covered include, electronic billing, confidentiality, managed care systems, workers' compensation, Medicare and Medicaid. Will include hands-on laboratory component.

Prerequisites: HSC-153, HIM-2220 and HIM-2253

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2272C
Medical Billing & Insurance II

3 Credits

Emphasis on billing regulations for the State of Florida. Course content includes LMRPs, Workers' Compensation Laws, Florida Medicare and claims for automobile accident injuries.

Prerequisites: HIM-2271C, HSC-1531, HIM-2220, and HIM-2253

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2273
Billing Software

2 Credits

Students will receive training with a software program that is used to complete billing forms and process claims to insurance companies. Includes paper claims and electronic billing.

Prerequisites: HIM-2271C, HIM-2272C, HSC-1531, HIM-2220 and HIM-2253

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2283
Advanced Coding

3 Credits

Includes the study of complex medical and surgical diagnoses and procedures in the inpatient and outpatient settings using CPT and ICD-9-CM codes to ensure accurate coding and reporting. Addresses current concepts and changes related to coding practice. Reimbursement by prospective payment systems will be reviewed. The 3M encoder will be used to provide hands-on practice.

Prerequisite: HSC-1531, HIM-1430, HIM-1436, HIM-1440, HIM-2220, HIM-2221, HIM-2253 and HIM-2254

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2940
Clinical Billing Practicum

2 Credits

Course is a planned work-based experience that provides students with an opportunity to enhance their skills through a supervised practical experience related to their career objectives in medical billing.

Prerequisites: HSC-1531, OST-1100, OST-2145, CIS-1931, HSC-1641, HIM-1000, HIM-2271C, APA-1111, SLS-1261, HIM-2253 and HIM-2220

Credit for this course does NOT apply to the Associate in Arts degree.

HIM-2941
Clinical Coding Practicum

2 Credits

Course is planned work-based experience that provides students with an opportunity to enhance their skills through a supervised practical experience related to their career objectives. Coding guidelines will be used and the student will address billing and reimbursement issues. Medical records will be used by the student to perform coding procedures.

Prerequisites: CIS-1931, HSC-1531, HIM-2253, HIM-2220, HIM-1000, HIM-1430, HIM-1436, HSC-1641, HIM-2254, HIM-2221 and HIM-1440

Credit for this course does NOT apply to the Associate in Arts degree.

HIS-2206
Group Studies in Historical Problems

3 Credits

An in-depth study of the economic, intellectual, cultural, social and political developments in Western civilization and their impact on today's world.

HIS-2206H
Honors Selected Topics in History

3 Credits

Same as HIS-2206 with honors content. Honors Institute permission required. May be taken two times for credit.

HLP-1081
Health Analysis & Improvement III

3 Credits

Examines the role, wellness and fitness, disease, nutrition, stress and physical activity, and their implications for total well being. Includes a self-evaluation of the student's current health status through their body composition and target heart rate. The development of a personal fitness program through complimentary and integrative modalities and a wide variety of choices is designed to improve total body fitness.

HLP-2000**Introduction to Physical Ed & Recreation**

3 Credits

An introduction to the field of physical education health education and recreational activities including historical background, programs, qualifications, techniques, organization and career opportunities.

HOS-1010**Horticultural Science**

3 Credits

Focuses on the fundamentals of plant growth, physiology, reproduction and related sciences. Plant identification structures, classification, soils, nutrition, irrigation, fertilizers, IPM post harvest handling and sustainable agriculture systems will be addressed. The impact of horticulture economy will also be addressed.

HOS-1016**Introduction to Horticultural Math and Chemistry**

3 Credits

Focuses on the fundamentals of chemistry and mathematics as they impact horticulture. Emphasis will be placed on measurements and units, chemicals and chemical reactions as they apply to horticulture. Topics include: numbers, metric system conversion, figures (charts and graphs), chemical reactions, liquids and solids, biochemistry and organic chemistry.

HSC-1102**Perspectives of Healthful Living**

3 Credits

Develops the student's knowledge and skills in health promotion/disease prevention. Provides an overview of the history, current state of practice and future trends in wellness and occupational therapy. Also explores health promotion, public policy and marketing. The presentation of topics follows a developmental sequence and each topic is analyzed from a prevention perspective. The student will implement a personal wellness goal, formulate a health/wellness topic, and complete an adolescent role assessment, and visit a community support group.

Prerequisites: LEI-2721. College level reading and writing skills are required.

Credit for this course does NOT apply to the Associate in Arts degree.

HSC-1220**Introduction to Health Sciences**

1 Credit

Introduces students to health care and patient care delivery systems. Includes discussion of infectious diseases and their transmission, including HIV/AIDS and hepatitis, bloodborne pathogens, legal/ethical issues regarding violence/abuse cognition and reporting. Also includes CPR certification for health care providers.

Prerequisites: College-level reading and Writing skills

Credit for this course does NOT apply to the Associate in Arts degree.

HSC-1530**Terminology Healthcare Programs**

1 Credit

Provides the student with the basic knowledge of the language of healthcare and the formation of complex medical terms. This independent study course is presented in modular design. It utilizes written and reading assignments as well as audiovisual presentations to maximize retention.

Credit for this course does NOT apply to the Associate in Arts degree.

HSC-1531**Medical Terminology**

3 Credits

Focuses on medical terminology, with an Emphasis is on anatomic names of bones and organs of the body, anatomic descriptive terms, radiographic laboratory terms and their common abbreviations and commonly used medical terms and their proper usage.

Credit for this course does NOT apply to the Associate in Arts degree.

HSC-1641**Legal and Ethical Aspects in Health Care**

1 Credit

An introduction to health care delivery systems, their roles and responsibilities, and the patient's legal rights within the system. The student will also evaluate ethical issues as they relate to the health care field.

Credit for this course does NOT apply to the Associate in Arts degree

HSC-2100**Health Education**

3 Credits

Provides a survey of the principles of health with an emphasis on physical fitness, mental health, nutrition, the use of tobacco, alcohol, drugs and family living.

HSC-2400**First Aid**

3 Credits

To provide the citizen responder with the knowledge and skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness until professional medical help arrives. Meets American Red Cross requirements for First Aid Responding to Emergencies Certification.

A special fee will be charged for this course.

HUM-1520**Music in Culture**

3 Credits

Links music to the visual arts and the composer's cultures, focusing on western music from the Medieval Period to the present.

HUM-2210**World Humanities: Prehistory to the Early Modern Era**

3 Credits

Provides an overview of the arts and ideas of major world civilizations of Europe, Asia, the Middle East, Africa and the Americas, from the Prehistoric era to the Renaissance. History is discovered through a study of art, music, literature, religion and philosophy, as students learn what others valued and believed.

Prerequisites: College level reading and writing skills are required.

HUM-2210H**Honors World Humanities: Prehistory to the Early Modern Era**

3 Credits

Same as HUM-2210 with honors content. Honors Institute permission required.

Prerequisites: College level reading and writing skills are required.

HUM-2230**World Humanities: Early Modern to the Contemporary**

3 Credits

Provides an overview of the arts and ideas of major world civilizations of Europe, Asia, the Middle East, Africa and the Americas, from the Renaissance to the present day. History is discovered through a study of art, music, literature, religion and philosophy, as students learn what others valued and believed.

Prerequisites: College level reading and writing skills are required.

HUM-2230H**Honors World Humanities: Early Modern to the Contemporary**

3 Credits

Same as HUM-2230 with honors content. Honors Institute permission required.

Prerequisites: College level reading and writing skills are required.

HUM-2410**Asian Humanities**

3 Credits

A historical survey of the humanities in India, China, Japan: the visual arts, music, dance, theater, religion, and philosophy from the prehistoric era to modern times. Emphasis will be on the cultural values revealed in works of art and literature.

Prerequisites: College level reading and writing skills are required.

HUM-2410H**Honors Asian Humanities**

3 Credits

Same as HUM 2410 with honors content. Honors Institute permission required. A historical survey of the humanities in India, China, Japan: the visual arts, music, dance, theater, religion and philosophy from the prehistoric era to modern times. Emphasis will be on the cultural values revealed in works of art and literature.

Prerequisites: College level reading and writing skills are required.

HUM-2420**African Humanities**

3 Credits

A historical survey of the African Humanities: the visual arts, music, dance, literature, theater, religion, and philosophy from the prehistoric era to the present day. Emphasis will be on the cultural values revealed in works of art and artifact.

Prerequisites: College level reading and writing skills are required.

HUM-2461**Latin American Humanities**

3 Credits

A historical survey of the humanities of Latin America: the visual arts, music, dance, theater, religion and philosophy from the pre-Columbian era to modern times. Emphasis will be on the cultural values revealed in works of art, artifact, and literature.

Prerequisites: College level reading and writing skills are required.

HUM-2700**Introduction to the Arts I**

3 Credits

Focuses on the attitudes and beliefs of societies as they are reflected in the arts. Topics include painting, architecture, music and drama. The course may be repeated for credit except for students participating in the Dual Enrollment Program. Course content varies by term. This course may be repeated one time for credit.

Prerequisites: College level reading and writing skills are required.

HUN-2201**Fundamentals of Human Nutrition**

3 Credits

Presents a fundamental understanding of basic human nutrition. Topics include carbohydrates, protein, fat, vitamins, minerals, water, nutrition throughout life, fiber, fast foods, the four food group plans and popular facts and fallacies. Includes the interpretation of current nutrition information.

HUS-1001**Introduction to Human Services**

3 Credits

Focuses on the history of the field of human services. In addition, models of service delivery, ethics, and professionalism in the practice of human service skills are investigated.

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1024**Abnormal Behavior: Etiology & Treatment**

3 Credits

Focuses on the basic concepts of mental health and therapeutic intervention, with an emphasis on normal and abnormal behaviors. Topics include concepts of normalcy, models of abnormal designations (medical vs. non-medical) and identification and classification of abnormal behavior.

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1200**Introduction to Group Process**

3 Credits

Provides an introduction to the principles of group interaction, with an emphasis on observation and participation in the group environment.

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1301**Counseling Theory I**

3 Credits

Provides a review of theories and their relation to therapeutic behaviors, procedures and techniques.

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1304**Interpersonal Skills in Human Services**

3 Credits

Focuses on the learning and proactive of the basic communication and interpersonal skills that are necessary in providing competent mental health and social services.

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1320**Crisis Intervention**

3 Credits

Focuses on the theoretical and practical aspects of human crises, with an emphasis on handling simulated crisis situations.

Prerequisites: College level reading and writing skills are required.

HUS-1331**Clinical Procedures I**

2 Credits

Focuses on the application of psycho-pathology to clinical experience, with an emphasis on observation and reporting. Topics include a review of various neuroses and the dynamics of depression.

Corequisite: HUS-182

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1540**Principles for Understanding and Working With Families**

3 Credits

This course presents family theories most often used by human services workers as the framework for working with families. Three of these theories - the ecological model of human development, family systems theory and empowerment theory will be used to help students understand the complexity of family development and adaptation and the impact of stress on the family system. The student will learn how these theories can be used in the development of family-professional collaboration and application of family-centered practice. Students will learn and practice skills for empowering families to assess their strengths, concerns and priorities and to plan for how to meet their needs.

Prerequisite: HUS-1001

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1550**Multicultural Perspective in Human Services**

3 Credits

Addresses cultural diversity and its implications for counseling and human services practice. It considers the psychological impact of factors such as sex, race, ethnicity and culture, religious preference, socioeconomic status, sexual orientation, and physical disability. Common stereotypes and prejudices toward various groups and cultures are investigated. Strategies for overcoming prejudice are studied. Interventions and strategies for working effectively in a helping capacity with diverse clients are discussed.

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-1820**Human Services Practicum I**

2 Credits

Provides an opportunity to apply theory in community health agencies for 16 hours per week. The emphasis is on direct client contact and on using correct interviewing techniques.

A special fee will be charged for this course.

Prerequisites: GEY-1000, HUS-1024, HUS-1200, HUS-1301, HUS-1320

Corequisite: HUS-1331

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2311**Strategies of Behavior Modification**

3 Credits

Focuses on the tenet of learning and motivation, with an introduction to behavior theory.

Prerequisites: HUS-1820, HUS-1331

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2312**Counseling Theory II**

3 Credits

This course is a continuation of HUS-1301, Counseling Theory I. Provides a review of theories and their relation to therapeutic behaviors, procedures and techniques.

Prerequisite: HUS-1301

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2332**Clinical Procedures II**

2 Credits

Focuses on basic medical terminology, problem oriented reporting and standing operating procedures, with an emphasis on developing a psycho-social history and treatment plan.

Corequisite: HUS-2821

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2333**Clinical Procedures III**

2 Credits

Focuses on identifying current issues in Human Services practice, including family interactions and systems theory as well as issues related to children and adolescents, substance abuse, managed care and the mind/body connection. The student is expected to spend two contact hours per week in class.

Corequisite: HUS-2822

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2334**Clinical Procedures IV**

2 Credits

Focuses on the final preparation of career skills, case presentation, special clinical topics, and post graduation goals for continued professional growth in the human services field.

Prerequisite: HUS-2822

Corequisite: HUS-2823

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2541**Working With Families in the Early Childhood Period: Impact on Child Health, Development and Parenting**

3 Credits

This course addresses three important issues of early childhood: health, development and parenting. Common health problems of infancy and early childhood are discussed along with important health promotion and disease prevention strategies for creating safe and nurturing environments. Content will address general social, environmental and biologic influences and factors that collectively impede or facilitate individual and family development, the major periods and domains of child development and the importance of early learning experiences that enhance brain development. Students will learn about characteristics and importance of parent-child interactions as well as other cultural and social influences on parenting skills. The depth of developmental knowledge provided is intended to enhance the skills of the family health and support worker, to increase their ability to provide anticipatory guidance and teaching, and to empower the parent-child relationship.

Prerequisite: HUS-1001

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2542**Working With Families in the Perinatal Period: Impact on Mother, Child and Family**

3 Credits

Pregnancy is an exciting and important time in the life of a woman, her unborn child and family members. This course reviews central issues that affect the family, particularly mother and child, before conception through the end of the first month after birth. The student will learn information to enhance their ability to support a woman as she gets ready for pregnancy, undergoes many changes in her body and the way she feels while pregnant, while in labor and following delivery. The student will learn what a woman should not do when pregnant, how to enable the pregnant woman to take care of herself to have a healthy baby, warning signs of problems, and care and feeding of the new baby. Students will practice skills for assessing a mother's emotional adjustment to the birth of her infant, the interactions and bonding behaviors with her child, and the infant's physical adaptations and social responsiveness.

Prerequisite: HUS-1001

Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2821
Human Service Practicum II

2 Credits
 Offers an opportunity to improve communications skills in selected agencies for 24 hours per week. Focuses on observing and reporting the mental state of the client through direct interaction.
 A special fee will be charged for this course.
 Prerequisites: HUS-1820 and HUS-1331
 Corequisite: HUS-2332
 Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2822
Human Service Practicum III

2 Credits
 Provides assignments to community agencies for 16 hours per week to develop skills in interviewing, observing, reporting and recognizing abnormal behavior.
 A special fee will be charged for this course.
 Prerequisites: HUS-2821 and HUS-2332
 Corequisite: HUS-2333
 Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2823
Human Services Practicum IV

2 Credits
 Provides assignments to community agencies for 16 hours per week where the emphasis is on increased responsibility for client intervention and continued refinement of intervention techniques in direct delivery care service.
 A special fee will be charged for this course.
 Prerequisite: HUS 2822
 Corequisite: HUS 2333
 Credit for this course does NOT apply to the Associate in Arts degree.

HUS-2840
Field Placement in Maternal and Child Services

3 Credits
 This course involves students being assigned by HCC to an affiliate field placement site and having supervised contact with clients under the auspices of that agency for a total of ten hours per week. This field placement allows the student to experience and practice screening and assessment procedures, adult learning principles, and health education teaching functions in maternal and child service settings. The field placement or practicum experience will be augmented by biweekly seminars during which students will review their experiences and receive additional content not covered during the previous six ATD courses. The field placement is designed to enable students to apply specialized content to a specialized population.
 Prerequisite: HUS-1001
 Credit for this course does NOT apply to the Associate in Arts degree.

IDH-2931
Honors Leadership

3 Credits
 An honors course in leadership and career theory that emphasizes understanding of oneself as a unique individual and that will serve as the basis for developing effective leadership abilities. The major topics include personal assessment, values and expectations, motivation, decision-making, and leadership and career theory. Honors Institute permission required.
 Prerequisite: College level writing and reading skills required.

IDS-1152C
Environmental Science

3 Credits
 Intended for non-science majors. Focuses on the general scientific principles of biology, ecology, earth science, and physical science in describing the environment, and how human activities effect the environment. Field trips are possible.
 A special fee will be charged for this course.
 Prerequisites: College level reading, writing and math skills are required.

IDS-1152H
Honors Environmental Science

3 Credits
 Same as IDS 1152 with honors content. Honors program permission required.
 Prerequisites: College level reading, writing and math skills are required.

IDS-2110
Connections

1 Credit
 A selected topics capstone interdisciplinary experience course for the AA degree curriculum. Summarizes major points in the bodies of knowledge acquired while participating in the general education experience in an applied manner. Involves research, application of theoretical models, and utilization of learned skills.

IDS-2200
Energy Issues

3 Credits
 This course provides an interdisciplinary study of renewable energy sources. A comparison of how the United States and other nations (primarily Denmark) have dealt with the political and economic vulnerability of the dependence on fossil fuel sources since the 1980's will be made. Societal aspects of energy use, waste, production, economics and environmental impacts will be compared between other nations and current United States trends. Course participants will be expected to observe aspects of Danish culture while staying with a Danish host family for approximately two weeks. This course will include both pre-trip and post-trip components.
 Note: Course participants must successfully complete an application process.
 Prerequisites: College level reading, writing and math skills are required.

IDS-2930
Interdisciplinary Travel Study/Service Learning

3 Credits
 This course will examine specific cultural regions from a variety of perspectives. It combines classroom activities, scholarly research, travel study, and service learning. Perspectives to be explored in this culture include the historical, social, economic, religious, and artistic (literature, art, architecture, dance, music, ritual). Additionally, the course promotes communication skills and team work.
 Prerequisites: College level reading and writing skills are required.

IPM-1011
Plant Pests

3 Credits
 Focuses on the study of insects, weeds, nematodes and plant diseases. Topics include identification, prevention, control and integrated pest management.
 Corequisite: IPM-1011L

IPM-1011L

Plant Pests Laboratory

1 Credit

This course accompanies IPM 1011.

A special fee will be charged for this course.

Corequisite: IPM-1011

IPM-1301

Application of Pesticides & Fertilizers

3 Credits

The course focuses on the fundamentals of pesticide and fertilizer application as they impact the horticulture industry. Emphasis will be placed on the safe and effective use of pesticides and fertilizers on horticultural crops and the environment. It will cover theory and provide practical hands-on activities in application strategies, to include application time, method rate and environment. Types of chemicals, formulation, management strategies, the use of labels, habits, habitats, signs and symptoms, mode of action of pesticides and fertilizers. Special emphasis will be placed on environmental safety, food, feed and water systems. The course will also cover equipment, calibration, application techniques, point and nonpoint contamination and emergency response. Strategies to prevent offsite contamination by wind, water or equipment will also be addressed.

IPM-2253

Management of Insects and Nematodes

3 Credits

The course will focus on the significance of insects and nematodes to horticulture. Emphasis will be placed on identification, classification, signs, symptoms and damage associated with insects and nematodes. It will also cover beneficial and harmful organisms, and provide hands-on activities including collecting, inspecting and identifying these organisms. Characteristics essential to management such as life cycle and development, body characteristics, feeding habits, habitats, hosts and control strategies will be included. Management will cover host specificity, harmful growth stage, control strategies to include legal, chemical, cultural, mechanical and biological. Emphasis will be placed on scouting and IPM strategies used in the horticultural industry.

Prerequisite: IPM-1011

IPM-2302

Applied Materials Chemistry and Calculations

3 Credits

The course focuses on the fundamentals of materials used in agriculture. Emphasis will be placed on the safe and effective use of the chemicals used on crops. It will cover theory and provide practical hands-on activities in calculating chemicals for application. Chemical composition, formulation, mode of action of materials, families, application rate and factors affecting the effectiveness of the applied materials will also be covered. Safety concerns for human and domestic animals, food, feed, wildlife and aquatic systems will also be addressed.

IPM-2551

Regulatory Environment of Pest Management

3 Credits

The course will focus on federal, state and local regulations in pest management. It will address the various agencies with roles in pest management. The regulatory roles of the USDA, EPA, DOT, DOI, FED, DOL will be addressed. Federal, state and local regulatory roles on certification, registration, special local needs, transport, spill, storage, disposal, restricted pesticide usage will all be covered. Safe use of pesticides with implication for handlers, groundwater, endangered species, agriculture and maintaining biological diversity will be addressed. Laws and acts with regulatory roles in pest management will be discussed.

Prerequisite: IPM-1011

IPM-2634

Management of Diseases and Weeds

3 Credits

The course will focus on the diseases and weeds that impact Florida's agriculture. Emphasis will be placed on identification, classification and signs and symptoms of disease organisms. Management strategies to reduce impact of weeds and diseases of the landscape will be addressed. Characteristics essential to management such as disease occurrence, causative organisms, pathogenicity, development and transmission will be discussed. Weed characteristics, identification, classification, control strategies will be discussed. Principles and methods crucial to the management of weed and diseases will be covered, including legal, chemical, cultural, mechanical and biological. Emphasis will be placed on scouting and IPM strategies used in the horticultural industry.

ISC-1004C

Integrated Natural Science I

3 Credits

Students will examine integrative concepts in earth system science and environmental science. topics include: the scientific method, the origin of the earth and life, geologic time processes/phenomena, evolution, ecology, and biological/geochemical cycles. This course is inquiry based and fully integrated with both laboratory and field experiences which emphasize active learning strategies.

ISC-1005C

Integrated Natural Science II

3 Credits

Students will examine integrative concepts in earth system science and environmental science. topics include: fossils and earth history, natural catastrophic events, classification of organisms, ecosystems and how they work, the atmosphere and environment. This course is inquiry based and fully integrated with both laboratory and field experiences which emphasize active learning strategies.

Prerequisite: ISC-1004C

ISS-2930

Special Topics Interdisciplinary Social Science

3 Credits

This course focuses on in-depth coverage of one or more topics that are not covered in great detail in other Social Science courses. The course stresses an interdisciplinary approach. Course content varies according to the interests of students and faculty. This course may be repeated one time for credit under a different topic.

Prerequisites: College level reading and writing skills are required.

ITA-1120

Elementary Italian I

4 Credits

Covers the fundamentals of reading, writing, listening and speaking the Italian language while developing an understanding of the Italian culture. Native speakers of Italian are not allowed to enroll in this course. These students may see their instructor to take the credit by exam test.

ITA-1121

Elementary Italian II

4 Credits

A continuation of ITA-1120, this course enhances skills learned in ITA-1120. Native speakers of Italian are not allowed to enroll in this course. these students may see their instructor to take the credit by exam test.

Prerequisite: ITA-1120

JOU-1400L

Journalism Laboratory

1 Credit

Provides practical experience through work on college publications under faculty supervision. This course may be repeated six times for credit.

Prerequisite: ENC-1101