MVW 2322
Principles Sophomore Oboe
2.00 Credits
Students must audition for placement in this course and will receive private instruction of one contact hour weekly. This course may be repeated once for credit.
Prerequisite: MVW 1312.
Corequisite: MUS 1010.

MVW 2323
Principles Sophomore Clarinet
2.00 Credits
Students must audition for placement in this course and will receive private instruction of one contact hour weekly. This course may be repeated once for credit.
Prerequisite: MVW 1313.
Corequisite: MUS 1010.

MVW 2324
Principles Sophomore Bassoon
2.00 Credits
Students must audition for placement in this course and will receive private instruction of one contact hour weekly. This course may be repeated once for credit.
Prerequisite: MVW 1314.
Corequisite: MUS 1010.

MVW 2325
Principles Sophomore Saxophone
2.00 Credits
Students must audition for placement in this course and will receive private instruction of one contact hour weekly. This course may be repeated once for credit.
Prerequisite: MVW 1315.
Corequisite: MUS 1010.

NMT 1002
Introduction Nuclear Medicine
3.00 Credits
Focuses on the history of nuclear medicine, nuclear medicine procedures, basic concepts of radioactivity, radiation detection, instrumentation, radiation safety and production of radio pharmaceuticals. Field trips to nuclear medicine training facilities are included. Credit for this course does NOT apply to the Associate in Arts degree.

NMT 1051
Nuclear Medicine Data Analysis
3.00 Credits
Presents concepts dealing with data acquisition and reduction relative to the practice of nuclear medicine technology. Credit for this course does NOT apply to the Associate in Arts degree.

NMT 1103
Introduction Patient Care
2.00 Credits
Covers the basic concepts of patient care with an overview of proper patient management. Credit for this course does NOT apply to the Associate in Arts degree.

NMT 1312
Radiation Safety and Health Physics
3.00 Credits
Covers proper techniques in the safe handling of radioactive materials, with an emphasis on proper receipt, usage, storage and disposal of radioactive materials. Topics include rules, standards, regulations and biological effects of radiation. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: NMT 1613

NMT 1534
Nuclear Instrumentation
3.00 Credits
Covers the basic operation of various radiation detection instruments including the Geiger Muller detector, analyzers, ionization chambers, scanners and cameras. Credit for this course does NOT apply to the Associate in Arts degree.
Corequisite: NMT 1534L

NMT 1534L
Nuclear Instrumentation Lab
1.00 Credits
Accompanies NMT 1534. Laboratory exercises include plotting gamma spectra, instrument calibration, detector resolution, simultaneous and radio nuclide quantification. Credit for this course does NOT apply to the Associate in Arts degree.
Corequisite: NMT 1543

NMT 1613
Nuclear Physics
3.00 Credits
Covers the basic concepts of atomic, nuclear and radiation physics with an emphasis on the interaction of radiation with matter. Alpha, beta and gamma sources are used with various detection devices to demonstrate these concepts. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: NMT 1051 or NMT 1002
Corequisite: NMT 1534

NMT 1713
Nuclear Medicine Methodology I
4.00 Credits
Teaches the foundations of nuclear medicine procedures. Emphasis is given to radiotracer methodology, preparation and properties of radio pharmaceuticals, routine imaging techniques, and radioimmunoassays. Prepares NMT students for the nuclear medicine practicum courses. Credit for this course does NOT apply to the Associate in Arts degree.

NMT 1723
Nuclear Medicine Methodology II
4.00 Credits
Teaches non imaging nuclear medicine procedures as well as some basic imaging methodologies. Special emphasis is given to hematology, ferrokinetics, endocrine functions, and the radioimmunoassay of hormones and drugs. The students are guided in the preparation of their term papers. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: NMT 1713
NMT 1804  
**Nuclear Medicine Practicum I**  
4.00 Credits  
Consists of up to 32 hours per week of clinical training at local hospitals affiliated with the NMT Program. Students follow a rotational schedule. Under the guidance of clinical supervisors and/or hospital staff, students learn routine nuclear medicine procedures while practicing radiation safety at all times. Credit for this course does NOT apply to the Associate in Arts degree.  
Corequisite: BSC 1086.

NMT 1814  
**Nuclear Medicine Practicum II**  
4.00 Credits  
Consists of up to 32 hours per week of clinical training at local hospitals affiliated with the NMT Program. Students follow a rotational schedule. Under the guidance of clinical supervisors and/or hospital staff, students learn techniques in nuclear cardiology and basic tomography of various organ systems. Credit for this course does NOT apply to the Associate in Arts degree.  
Prerequisite: NMT 1804

NMT 2061  
**Nuclear Medicine Seminar**  
3.00 Credits  
A comprehensive review of all aspects of the Nuclear Medicine Technology program. Credit for this course does NOT apply to the Associate in Arts degree.

NMT 2733  
**Nuclear Medicine Methodology III**  
4.00 Credits  
Continues the teaching of routine and special nuclear medicine imaging procedures. The properties of radio pharmaceuticals and the special instrumentation used in these procedures are also taught. In addition, students present their papers in oral and written form. Credit for this course does NOT apply to the Associate in Arts degree.  
Prerequisite: NMT 1723

NMT 2824  
**Nuclear Medicine Practicum III**  
4.00 Credits  
Consists of up to 32 hours per week of clinical training at local hospitals affiliated with the NMT Program. Students follow a rotational schedule. Under the guidance of clinical supervisors and/or hospital staff, students learn SPECT, PET and NMR procedures in cardiology, neurology and oncology. Credit for this course does NOT apply to the Associate in Arts degree.  
Prerequisite: NMT 1814

NUR 1000  
**Basic Healthcare Concepts**  
1.00 Credits  
This course will introduce transition students (LPN/RN) to the nursing process and the role of the Associate Degree nurse, utilizing previous knowledge and skills. Nursing history and theorists will be introduced. Emphasis will be placed on the role changes. The program threads of legal/ethical issues, communication, patient education, and cultural diversity will be introduced.  
Corequisite: NUR 1260C.

NUR 1004C  
**Basic Nursing Skills Process**  
6.00 Credits  
Provides an opportunity to review, practice or acquire basic nursing procedures with an emphasis on performance evaluation in both simulated laboratory and actual clinical settings. Designed for students enrolled in the transition option of the nursing program. Credit for this course does NOT apply to the Associate in Arts degree.  
Corequisite: BSC 1086.

NUR 1060  
**Health Assessment**  
3.00 Credits  
Provides the student with the basic skills needed for health assessment. In simulated laboratory settings clients will be assessed physically, psychologically, and socially across the lifespan. Topics include the health history, objective physical examination and subjective client information coordinated within the framework of the nursing process. The student will be able to differentiate common deviations from the norm. Credit for this course does NOT apply to the Associate in Arts degree.

NUR 1141  
**Pharmacology in Nursing**  
3.00 Credits  
This course will introduce basic concepts of pharmacology related to the actions of drugs, therapeutic and adverse effects, and food and interactions of these drugs used in the treatment of acute and chronic diseases. Drug classification will be presented based on body system and disease process format. Emphasis is placed on nursing implications and patient education in collaboration with other treatment modalities needed in patient care. Legal aspects of drug administration including safety and precautionary measures will be included. Calculation of medication doses and various routes of administration will be discussed. Students will be able to apply knowledge in subsequent nursing courses as they care for clients across the lifespan.  
Prerequisite: NUR 1213C.

NUR 1142  
**Introduction to Math/Pharmacology**  
1.00 Credit  
Introduction to the principles and concepts related to pharmacology and the administration of medications. This course builds a solid foundation of the understanding enabling the student to calculate and administer medications competently within a nursing process framework. Credit for this course does NOT apply to the Associate in Arts degree.  
Corequisite: BSC 1086.
NUR 1213C
Nursing Process I
10.00 Credits
Focuses on nursing theory and application of the nursing process, including the understanding and setting of priorities in health care. Students will participate in simulated laboratory learning and will perform guided patient care in various health care settings. Class work will emphasize basic nursing care for clients with common health problems affecting oxygenation, circulation, elimination, neurosensory and musculoskeletal systems. Also included are concepts related to pharmacology, communication, teaching, legal/ethical and computer literacy. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: Acceptance into the Nursing program.
Corequisite: BSC 1086

NUR 1260C
Nursing Process II
10.00 Credits
Focuses on the nursing theory and application of the nursing process for clients experiencing chronic health problems. Students will build on prior knowledge as they plan and implement care in the laboratory and clinical settings for clients dealing with chronic renal, cardiac/respiratory, psychiatric and neuromuscular disorders. Class work will emphasize the unique bio psycho social needs of this population. Content will continue to enhance the students understanding of pharmacology, communication, teaching, legal/ethical and computer literacy concepts. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: NUR 1213C

NUR 2243C
Nursing Process IV
10.00 Credits
Focuses on advanced nursing theory, the nursing process and techniques involved in caring for the adult client with complex health problems. Decision making and management theory will be emphasized. Selected clinical experiences will complement the class work. A portion of the clinical time will allow students to work with an RN preceptor to implement nursing care for groups of individuals in the acute care area. Credit for this course does NOT apply to the Associate in Arts degree.

NUR 2412C
Nursing Process III
10.00 Credits
Focuses on the nursing theory and application of the nursing process of the childbearing family and children from conception through the adolescence period of development. Students will be building on prior knowledge as they plan and implement care in the laboratory and clinical settings for clients dealing with related common, chronic and complex problems. Class work will emphasize the unique bio psycho social needs of this population. Content will continue to enhance the students understanding of pharmacology, communication, teaching, legal/ethical, and computer literacy concepts. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: NUR 1213C

NUR 2413C
Nursing Process III Transition Option
9.00 Credits
This course focuses on the physical, emotional and psychosocial needs of the family. The nursing process is applied to the special needs of the childbearing family. This course includes nursing care of the childbearing mother and family and care of the infant through adolescence. The learner will build on specific cognitive and psychomotor skills acquired from their practical nurse education and demonstrate competent performance in the clinical setting. Credit for this course applies to the Associate of Science in nursing program. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: NUR 1260C.
Corequisite: NUR 2521C.

NUR 2521C
Mental Health Nursing
2.00 Credits
This course emphasizes the role of the professional nurse in assessing, planning and implementing care of clients with psychiatric disorders that require hospitalization. An overview of psychopathology and treatment modalities are included. The clinical experience will focus on the nursing process in the planning and care of these clients. Credit for this course does NOT apply to the Associate in Arts degree.
Prerequisite: NUR 1213C.

NUR 2650C
Transcultural Nursing
2.00 Credits
Provides the student the opportunity to experience a direct relationship with healthcare providers and recipients from various cultural backgrounds in an international setting. The students will travel to a supervised site for theoretical concepts as well as clinical experiences. The students will gain valuable components of learning process relating to culturally diverse communities with emphasis on holistic care. Credit for this course does NOT apply to the Associate in Arts degree. College level reading, writing and math skills required.
Prerequisites: Nursing Student or Licensed Nurse

NUR 2931C
Selected Studies/Clinical Makeup
1.00 Credits
This course is designed to complete clinical hours in order to meet the course requirements for Nursing Process I (NUR 1213C), Nursing Process II (NUR 1260C), Nursing Process III (NUR 2460C and NUR 2520C) and Nursing Process IV (NUR 2243C). The course assigns the student to select adult and pediatric medical surgical clients, maternity and mental health clients experiencing health and/or mental health care problems correlating with current didactic course content. This course may be repeated 24 times.

OCB 2000
Marine Biology
3.00 Credits
An introductory course covering the complexities of the marine environment. Topics include an introduction to marine habitats, marine organisms, ecological interactions and methods used by oceanographers and marine biologists.
Prerequisites: College level reading, writing and math skills required.
Corequisite: OCB 2000L.
OB 2000H  
Honors Marine Biology  
3.00 Credits  
Same as OB 2000 with honors content. Honors Institute permission required.  
Corequisite: OCB 2000L.

OB 2000L  
Honors Marine Biology Lab  
1.00 Credits  
Accompanies OB 2000H; same as OB 2000L with honors content. Honors Institute permission required.  
Corequisite: OCB 2000H.

OB 2000L  
Marine Biology Lab  
1.00 Credit  
Accompanies OB 2000; the emphasis is on experiments and field trips.  
Corequisite: OCB 2000.

OPT 1000  
Ophthalmic Orientation  
1.00 Credits  
Presents an introduction to the field of vision care, including opticianry, optometry, ophthalmology and optical manufacturing. Topics include ophthalmic history, legal and ethical principles, patient history, terminology and abbreviations. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1155  
Ophthalmic Lens I  
3.00 Credits  
Provides a brief history of the development of glass and plastic lenses, the various sphere, cylinder and prism powers, the use of optical cross, flat and toric transposition, and the aberrations of lenses. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1156  
Ophthalmic Lens II  
3.00 Credits  
This course continues the study of optical theory. Topics include: prism notation; vertical imbalance and methods of correcting for it; vertex power; luminance; reflection and absorption; diffraction; third order lens aberrations, and lens tilt; anisometropia, and spectacle magnification. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1225  
Low Vision  
3.00 Credits  
Provides a definition of visual impairment and methods used to measure its severity. A description of the most common causes of visual impairment will be presented. Treatment plans including optical and non optical aids will be reviewed. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1400L  
Ophthalmic Lab I  
3.00 Credits  
Introduces the student to terms, instruments, lenses, frames, and materials to be used in the surfacing and finishing of ophthalmic prescription eyewear. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1430L  
Ophthalmic Lab II  
3.00 Credits  
Introduces the student to terms, instruments, lenses, frames and materials to be used in the finishing process and handwork of ophthalmic prescription eyewear. This course is a continuation of Ophthalmic Laboratory I. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1460  
Ophthalmic Dispensing I  
3.00 Credits  
This course introduces the student to the skills necessary for becoming a dispensing optician. Included are the history of the profession, patient/client measurements, frame and lens materials, frame and lens selection, prescription, prescription analysis, and adjustment techniques. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1460L  
Ophthalmic Dispensing Lab I  
3.00 Credits  
Designed to introduce the students to the practical dispensing of optical products. The students will perform competencies related to the neutralization of single vision lenses and multifocal lenses for duplication, measurement of frames and mountings, and the measurement of PD’s. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 1666  
Safety & Sports Vision  
3.00 Credits  
Opticians are constantly requested to provide eyewear that will better protect, improve and enhance vision for occupational and recreational activities. This course will present the visual requirements for common occupations and sports. It will also discuss spectacle, contact lens, and non optical solutions to safety and sports vision problems. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2030  
Ophthalmic Board Review  
1.00 Credits  
Provides a comprehensive review and update of opticianry dispensing in preparation for the Florida State Board of Opticianry examination. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2204  
Anatomy and Physiology of the Eye  
3.00 Credits  
Investigates the anatomical structure of the eye and the function of its parts as they pertain to the process of vision. Credit for this course does NOT apply to the Associate in Arts degree.
OPT 2375
Refractometry
2.00 Credits
Designed to instruct the students in the theory of refractometry and testing for visual acuity. It will include identifying ametropias, the etiology and distribution of refractive errors and anomalies of binocular vision. The steps in performing refraction, objective and subjective refraction procedures will be covered. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2375L
Refractometry Lab
2.00 Credits
Continuation of OPT 2375 designed to introduce the students to the procedures of an objective and subjective refraction. Students will perform competencies related to retinoscopy, patient history, binocular balance and subjective testing for visual acuity. Primarily a hands on course. The students will gain practice in testing VA (cc and sc), refinoscopy, subjective refraction and binocular balancing in a clinically safe environment. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2376L
Refractometry Lab II
1.00 Credit
Continuation of OPT 2375L. Designed to fine tune the procedures of objective and subjective refractions. Students will perform competencies related to measuring visual acuity and taking a patient history, retinoscopy (review), confrontations and EOM’s, pupillary functions, balance and binocular/ phoria/tropia testing. Primarily a hands on course to help the students gain speed and accuracy in performing objective and subjective refractions. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2461
Ophthalmic Dispensing II
3.00 Credits
This course presents ophthalmic instruments and devices; analysis of absorptive lenses; computing and compensation of vertical imbalance; discussion of ethics and legal issues; record keeping and communications; optical salesmanship, and visual impairment. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2461L
Ophthalmic Dispensing Lab II
3.00 Credits
Designed to introduce students to the practical aspects of frame alignments and adjustments, and the insertion and removal of lenses from various frames. Includes further instruction and practice on neutralization of lenses for verification and duplication of an Rx order, measure and calipering of lenses and frames, the facial measurements of orders (PD and seg heights), frame repair and the identification of various types of lenses. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2463L
Ophthalmic Skills Lab I
2.00 Credits
This course is designed to educate students in the technical skills of performing various procedures within the ophthalmic visual assessment area of a dispensary. The course will present technical equipment procedures, maintenance and use, as well as the skills needed in assisting Optometrists and patients with various procedures such as administering medicines and pharmacology identification and uses. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2500
Contact Lens Theory I
3.00 Credits
This course includes a historical review as well as theory; design and optical principle of contact lenses; indications and contraindications for contact lens wear; patient evaluation; discussion of lens types and availability; fundamental techniques and fitting philosophies including the role of the biomicroscope, keratometer and radiuscope; patient education on care, cleaning, insertion and removal of contact lenses. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2500L
Contact Lens I Lab
2.00 Credits
Students will perform competencies related to the handling of instruments and charts used in the fitting and designing of contact lenses, and the handling and evaluation of contact lenses by the fitter and the patient. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2501
Contact Lens Theory II
2.00 Credits
Emphasizes contact lens verification, dispensing, and follow up care. The fitting of astigmatic, presbyopic, and other special contact lens patients will also be covered. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2501L
Contact Lens II Lab
2.00 Credits
Students will perform competencies related to the design, inspection, modification, evaluation and dispensing of spherical contact lenses. The fitting of astigmatic, presbyopic, and other special contact lens patients will also be covered. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2502L
Contact Lens Lab III
1.00 Credits
Advanced hands on experience in fitting contact lenses. Credit for this course does NOT apply to the Associate in Arts degree. Prerequisite: OPT 2501L.

OPT 2800L
Vision Care Clinical I
2.00 Credits
This course is designed to allow students to apply knowledge gained in lectures and laboratories to clinical situations. Depending on the placement, the student may utilize skills related to management, fabrication, dispensing, contact lenses or visual assessment. Credit for this course does NOT apply to the Associate in Arts degree.
OPT 2801L
Vision Care Clinical II
2.00 Credits
This course is designed to allow students to apply knowledge gained in lectures and laboratories to clinical situations. Depending on the placement, the student may utilize skills related to management, fabrication, dispensing, contact lenses or visual assessment. Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2802L
Vision Care Clinical III
2.00 Credits
This course is designed to allow students to apply knowledge gained in lectures and laboratories to clinical situations. Depending on the placement, the student may utilize skills related to management, fabrication, dispensing, contact lenses or visual assessment Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2803L
Vision Care Clinical IV
2.00 Credits
This course is designed to allow students to apply knowledge gained in lectures and laboratories to clinical situations. Depending on the placement, the student may utilize skills related to management, fabrication, dispensing, contact lenses or visual assessment Credit for this course does NOT apply to the Associate in Arts degree.

OPT 2910
Directed Research
3.00 Credits
Covers the research, planning and development of an optical dispensary. Topics include the type, size, location and design, as well as financing, business structure, taxes, licenses and equipment. Credit for this course does NOT apply to the Associate in Arts degree.

ORH 1002
Water Resources and Land Use
3.00 Credits
This course focuses on the interrelationship of water resources and land use. Emphasis will be placed on water source and land use policies, classification, identification, water quality and quantity. The relationship between land use and water pollution, pollution prevention, the hydrologic cycle and water shed, land and water conservation practices and principles will be addressed.

ORH 1005C
Horticulture Field Skills
3.00 Credits
This course is designed to provide hands on teaching experiences on outdoor and horticultural vocational skills. The skills will be those required for certification by the Florida Nursery and Growers Association, and employers in the areas of landscape technicians, contracting, landscape design and installation.

ORH 1016
Environmental Issues in Horticulture
3.00 Credits
This course will explore the hazards of and contribution of the horticultural industry on the environment. It will focus on providing sound practices for a safe environment. Topics will include but not limited to, water contamination sources, soil contamination, industry and farm roles in contamination, ecology of pesticides, invasive exotic species and their control, soil subsidence, wetland mitigation, habitat restoration, urban wildlife, plants and air quality, remediation, plant use in environmentally sensitive design and xeriscaping.

ORH 1220
Turf and Landscape Maintenance
3.00 Credits
Focuses on the care of turf grass and landscape plants on residential and commercial properties. Topics will include the maintenance of trees, shrubs, the diagnosis of landscape problems and landscape structure repair.

ORH 1252
Retail Nursery Operation
3.00 Credits
Focuses on operating a retail garden center. Topics include licenses, purchasing, merchandising, sales, personnel management, business analysis and regulation.

ORH 1262
Floriculture Lecture
3.00 Credits
Focuses on the production, handling and marketing of major and potential floriculture, foliage, fern and bedding crops in Florida and the Southeast.
Corequisite: ORH 1262L.

ORH 1262L
Floriculture Lab
1.00 Credits
Field experiences related to the production, handling, and marketing of flowering foliage fern and bedding crops.
Corequisite: ORH 1262.

ORH 1302
Irrigation System Installation
3.00 Credits
This course will provide students with the basics and techniques used in installing irrigation systems. Students will understand the role of designs, materials and supplies, water supply, layout, trenching, backfilling, routing, looping, systems and components, landform, grading and pipe drainage, equipment and buildings, plants and soils. Students will understand the role of individuals, specifications, electricity, quality control, instructions, and pipe connection and testing. Installing irrigation in athletic fields, greenhouses, residents and commercial, parks and other public places will be addressed. Students will be introduced to sources of equipment, materials and supplies used in installation and cost estimation.
Prerequisite: LDE 1310.
ORH 1304
Low Volume Irrigation Systems
3.00 Credits
This course will focus on low volume irrigation systems and their function in the landscape. Topics covered will include fittings, pipes, layout, installation, cost estimation, water resources, maintenance, troubleshooting and problems associated with low volume systems. Students will get hands on exercises in low volume irrigation systems. Areas to be covered include irrigation for lawn and landscape, crops, topography, soil, watering frequency, climate, backflow prevention, advantages and disadvantages of low volume irrigation in the landscape and greenhouses.

ORH 1306
Computer Software for Irrigation
3.00 Credits
Focuses on the use of computers and software for irrigation systems. Topics to be covered include golf course, athletic fields, nursery, parks, residential and commercial properties and irrigation scheduling. Introduction to products such as basics and commercial software as well as the WWW as a tool for marketing and understanding software systems will also be included.

ORH 1309
Irrigation Troubleshooting and Repair
3.00 Credits
Students will learn and develop a knowledge of the components of troubleshooting and repairing systems. Students will be able to use diagnostic tools of sight, equipment to solve problems. Students will be able to understand the reasons for poor or non performance in a system. Manufacturers, materials and supplies, availability, costs and estimating repairs will be addressed.
Prerequisite: LDE 1310.

ORH 1312
Residential Irrigation Design
3.00 Credits
Topics include cost, water, resources, crops, soil and terrain. Zoning, pipes and fittings, layout, installation, maintenance will also be addressed. Students will get hands on exercises in residential designs and be able to understand the factors that impact the designing of residential landscapes. The use of technology such as computer and the WWW in irrigation designs will be addressed.
Prerequisite: LDE 1310.

ORH 1314
Commercial Irrigation Design
3.00 Credits
Provides the foundation for effective systems commercial water management. Emphasis will be placed on athletic fields, golf courses, parks, schools, housing developments, resorts and commercial crop production. Determining water requirements to meet the needs of plants based on soil, plant and atmosphere relation and components of systems will be covered. Students will be able to understand and use computers as a tool in irrigation design and will estimate cost effectiveness of designs.
Prerequisite: LDE 1310.

ORH 1510
Plant Identification
3.00 Credits
Focuses on the identification of woody ornamental plants, trees, grasses, foliage, flowering and annual bedding plants common to Florida.

ORH 1515
Plant Identification II
3.00 Credits
Focuses on the identification of foliage, flowering and annual bedding plants common to Florida.

ORH 1523
Native Upland Plants
2.00 Credits
This course includes the identification of approximately 100 plants and plant groups native or naturalized in the higher ground habitats of South Florida. The application of these plants as in situ, mitigation or landscape materials in the ecological and esthetic situations of this area will be an additional objective. Most instruction will be done in the field utilizing local passive and active use parks.

ORH 1524
Native Wetland Plants
2.00 Credits
A continuation of ORH 1523, Native Upland Plants, and includes the identification of approximately 100 plants and plant groups native or naturalized in the fresh and salt water wetlands of South Florida. The application of these plants as in situ and mitigation species in ecological, landscape and esthetic situations will also be discussed. Most instruction will be done in the field.

ORH 1830
Landscape Design
3.00 Credits
Focuses on the use and planting of appropriate plants for particular area. Emphasizes the development of a sound basic knowledge of proper plant materials, height, spread, flowers, fruit, soil requirements and insects. Also addresses the drawing skills needed for the presentation of design, and sales training techniques.

ORH 1851
Landscape Installation
3.00 Credits
Focuses on preparing students for certification in landscape installation and maintenance. Emphasizes landscape crew supervision, reading plans, construction, establishing lawns, planting and transplanting, watering, pest and weed control, chemicals and fertilizers.

ORH 1936
Irrigation Seminar
3.00 Credits
The course is designed to expose students to and provide information on irrigation topics that are common in agriculture. Students will prepare and present seminar, attend field trips to operations utilizing different irrigation systems and attend instructional seminars given by professionals.
Prerequisite: LDE 1310 and HOS 1010.
### ORH 2212
**Principles Woody Ornamental**

2.00 Credits  
Focuses on nursery design, structures, irrigation systems and watering practices, equipment, media components and preparation, fertilization, management theory of wholesale nursery production and operations. Topics include weed control, pest management and physiological disorders.  
Prerequisites: SWS 1102, HOS 1010, BOT 1000.  
Corequisite: ORH 2212L.

### ORH 2212L
**Principles Woody Ornamental Lab**

2.00 Credits  
Practical, hands-on application of techniques learned in Principles of Woody Ornamental Plant Production classroom sessions. Potting activities, weed control, chemical application and fertilization will be performed plus field trips to area nurseries for practical application appraisal.  
Corequisite: ORH 2212.

### ORH 2251
**Florida Horticulture Professional Preparation**

3.00 Credits  
This course will offer a broad perspective of the nursery industry. Topics will include but not limited to, business management, nursery organization and development, marketing, inventory control, cultural practices, pest management, employer/employee relations, and industry requirements.

### OST 1100
**Beginning PC Typing**

3.00 Credits  
Introduces the techniques of touch typing and speed development on the personal computer, with an emphasis on business letter styles, centering, and manuscript formatting. A minimum of one hour per week in the lab is required.

### OST 1110
**Intermediate PC Typing**

3.00 Credits  
Covers advanced letter writing, tabulation and manuscript typing with an emphasis on developing speed and skills. A minimum of one hour per week in the laboratory is required.  
Prerequisite: OST 1100.

### OST 1142
**Keyboarding I**

1.00 Credit  
Provides instruction in the touch system of typing on the personal computer.

### OST 1143
**Keyboarding II**

1.00 Credits  
Provides instruction in the touch system of keyboarding with an emphasis on speed and accuracy.  
Prerequisite: OST 1142.

### OST 1330
**Skills for Transcription**

3.00 Credits  
Provides an in-depth review of grammar, punctuation and spelling with an emphasis on proofreading and editing. Topics include numbers usage, word division, possessives, grammatical context, use of secretarial reference books, formatting, and transcription procedures.

### OST 1335
**Business Communications**

3.00 Credits  
Presents an overview of business communications, including international considerations, and focuses on constructing proper business letters, with an emphasis on various styles, such as sales, claims, credit reference, collection, requests, order and refusal. Preparation for and formatting of proposals and business reports is also included.

### OST 1345
**Forms Design & Management**

2.00 Credits  
Focuses on the creation of business forms, emphasizing design of both paper and electronic forms. Various software programs may be used to design forms. Also focuses on management of forms in a business organization. Emphasis is placed on the procedures for establishing and maintaining a forms management program.

### OST 1355
**Records Information**

3.00 Credits  
Provides a general overview of records management, focusing on manual and electronic filing systems and procedures, the creation and organization of files, scheduling, maintaining, storing and retrieving of records, and the scope and employment potential in the field.

### OST 1382
**International Office Protocol**

1.00 Credit  
Focuses on the tasks required of office personnel employed by organizations doing business internationally.

### OST 1374
**Word Processing I**

1.00 Credits  
Provides hands-on experience in a specific word processing software. Students may select more than one software by repeating the course three times for credit. However, only one credit hour will apply toward meeting program graduation requirements.  
Prerequisite: OST 1100.

### OST 1813
**Desktop Publishing**

3.00 Credits  
Uses a page layout software program to cover the basic skills required for the preparation of flyers, brochures, and newsletters in camera ready form, with an emphasis on composition, type styles, and layout. Students must take noted prerequisite or obtain permission of instructor.  
Prerequisite: CGS 1000.
OST 1825
Desktop Design
3.00 Credits
Using a variety of popular computer software, this course focuses on preparing professional quality, camera ready designs and layouts for newsletters, brochures and print advertisements. Topics include printing terms and requirements and selecting paper stock. Students must noted prerequisite or obtain permission of instructor.
Prerequisite: OST 1813.

OST 1831
Introduction to Windows I
1.00 Credits
Covers basic commands of Windows software.

OST 1832
Introduction to Windows II
1.00 Credits
Intermediate course covering Windows commands. Student must recommended prerequisite or obtain permission of instructor.
Prerequisite: OST 1831.

OST 1941
OST Internship
3.00 Credits
On the job training related to the coursework completed at HCC in the Office Systems Technology Department. Involves a "learning by doing" educational approach. Paid or unpaid internships will be provided at HCC and Tampa area businesses.

OST 2135
Medical Document Production on the PC
3.00 Credits
Uses a medical software program to input patient information, schedule appointments, and process insurance claims and billing. A minimum of one hour per week in the laboratory is required.
Prerequisite: OST 1741.

OST 2145
Data Entry Applications
3.00 Credits
Covers data entry skills, with an emphasis on dexterity and accuracy. Topics include point of sale, sale invoices, questionnaires, auto insurance applications, auto registration and inventory.

OST 2357
Electronic Records Management
3.00 Credits
Develops managerial and decision making techniques for the records manager. Involves the study of systems analysis, forms development, archival administration, personnel development, and the establishment of a records management program.

OST 2402
Office Procedures
3.00 Credits
Provides a comprehensive review of office skills and procedures, with an emphasis on problem solving, decision making, and work habits. May use personal information management software.
Prerequisite: OST 1741.

OST 2501
Office Administration
3.00 Credits
Focuses on organizing, planning and controlling office operations with an emphasis on motivation and productivity. Topics include human resources, work environment and information systems.

OST 2611
Medical Transcription I
3.00 Credits
Provides a working knowledge of the transcription of medical reports based on individual case studies.
Prerequisite: OST 1330, OST 1741, CGS 1500.

OST 2612
Medical Transcription II
3.00 Credits
Presents advanced transcription of medical reports, with an emphasis on speed and accuracy.
Prerequisite: OST 2611.

OST 2722
Advanced Word Processing
3.00 Credits
Focuses on advanced work processing functions such as macros, math calculations, equation editor, tables, column formats, importing and exporting files, text imaging and formatting, integrating graphics, generating tables of contents, indexes, and lists. Topics include design techniques for production of multi page documents such as newsletters, brochures, reports, and flyers.
Prerequisite: OST 2743.

OST 2742
Word Processing II
1.00 Credits
Focuses on more complex technical procedures on the software studied in Word Processing I. Students may select more than one software application by repeating the course three times for credit. However, only one credit hour will apply toward meeting program graduation requirements.
Prerequisite: OST 1741.

OST 2743
Word Processing III
1.00 Credits
Continues with more complex technical procedures on the software studied in Word Processing II. Students may select more than one software application by repeating the course three times for credit. However, only one credit hour will apply toward meeting program graduation requirements.
Prerequisite: OST 2742.

PCB 1730
Human Reproduction and Inheritance
3.00 Credits
Intended for those not majoring in the biological sciences or in allied health. Focuses on the various aspects of human reproduction. Topics include the male and female reproductive systems, embryology, birth control, sexually transmitted diseases and heredity. Prerequisite: College reading, writing and math skills are required. Corequisite: PCB 1730L.