

## **ASSOCIATE IN SCIENCE/ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS and Technical Certificates/ Applied Technology Diplomas/Advanced Technical Certificates**

### **ACCOUNTING TECHNOLOGY**

Accounting Applications Certificate

### **AGRICULTURAL PRODUCTION TECHNOLOGY**

Aquaculture Technology Certificate

### **AIR CONDITIONING, REFRIGERATION & HEATING SYSTEMS TECHNOLOGY**

Air Conditioning, Refrigeration &  
Heating Systems Technology Certificate

### **ARCHITECTURAL DESIGN & CONSTRUCTION TECHNOLOGY**

### **AUTOMOTIVE SERVICE MANAGEMENT TECHNOLOGY**

### **BUILDING CONSTRUCTION TECHNOLOGY BUSINESS ADMINISTRATION**

Business Management Certificate

### **CIVIL ENGINEERING TECHNOLOGY**

### **COMPUTER INFORMATION TECHNOLOGY**

Cisco Certified Network Associate  
Certificate

Information Technology Support Specialist  
Certificate

Computer Programming Specialist  
Certificate

Web Production Certificate  
Office Specialist Certificate

### **CRIMINAL JUSTICE TECHNOLOGY A.S.**

### **CRIMINAL JUSTICE TECHNOLOGY A.A.S.**

### **DENTAL ASSISTING TECHNOLOGY & MANAGEMENT**

Dental Assisting Technology & Mgmt  
Applied Technology Diploma

### **DENTAL HYGIENE**

### **DENTAL LABORATORY TECHNOLOGY & MANAGEMENT**

### **DRAFTING & DESIGN TECHNOLOGY**

AutoCad Foundations Certificate  
Drafting Certificate

### **EARLY CHILDHOOD EDUCATION**

Child Development & Early Intervention  
Certificate

### **ELECTRONICS ENGINEERING TECHNOLOGY**

Lasers & Photonics Certificate  
Basic Electronics Certificate

Electronic Technology Certificate

### **EMERGENCY ADMINISTRATION & MANAGEMENT**

Emergency Management Certificate

Homeland Security Emergency Manager  
Certificate

### **EMERGENCY MEDICAL SERVICES**

Emergency Medical Technology  
Applied Technology Diploma

Paramedic Certificate

### **FIRE SCIENCE TECHNOLOGY**

### **GOLF COURSE OPERATIONS**

Turf Equipment

Applied Technology Diploma

Pest Control Operations

Applied Technology Diploma

### **GRAPHIC DESIGN TECHNOLOGY**

Graphic Design Support Certificate

Graphic Design Production Certificate

Digital Media Support Certificate

Digital Media Production Certificate

### **HEALTH INFORMATION MANAGEMENT**

Medical Information Coder/Biller Certificate

### **HEALTH SERVICES MANAGEMENT**

### **HUMAN SERVICES**

### **INTERIOR DESIGN TECHNOLOGY**

Kitchen & Bath Certificate

### **LANDSCAPE & HORTICULTURE TECHNOLOGY**

Landscape & Horticulture Specialist Certificate

Landscape & Horticulture Professional Certificate

Landscape & Horticulture Technician Certificate

### **MARKETING MANAGEMENT**

Marketing Operations Certificate

### **MEDICAL LABORATORY TECHNOLOGY**

### **NURSING, A.S. DEGREE - R.N.**

Advanced Technical Certificate in  
Perioperative Nursing

### **PARALEGAL STUDIES/LEGAL ASSISTING**

### **PHYSICAL THERAPIST ASSISTANT**

Advanced Technical Certificate in  
Manual Techniques for the PTA

### **RADIOGRAPHY**

Nuclear Medicine Technology Specialist  
Certificate

### **RESPIRATORY CARE**

Advanced Technical Certificate in  
Advanced Respiratory Care Practice

### **RESTAURANT MANAGEMENT**

### **THEATRE & ENTERTAINMENT TECHNOLOGY**

**A.S. & A.A.S. DEGREES  
Technical Certificates/ATDs/ATCs**

## **ASSOCIATE IN SCIENCE/ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS and Technical Certificate/Applied Technology Diploma**

The **Associate in Science and Associate in Applied Science** Degree programs are designed for students wishing to develop technical skills with emphasis on middle-management employment opportunities. This two-year college degree program focuses on high technology careers, prepares students to compete effectively in the contemporary job market and transfers into the IRSC Baccalaureate Degree programs.

The **Technical Certificate** is awarded to a student who has completed the required number of college credit hours that are part of the two-year A.S. or A.A.S. Degree program. Students must complete at least twenty-five (25%) of the certificate course requirements at IRSC with a cumulative GPA of 2.0 or higher in the coursework for the Certificate.

The **Applied Technology Diploma (ATD)** consists of a course of study that is part of an Associate in Science (A.S.) or an Associate in Applied Science (A.A.S.) Degree and leads to employment. Student must have a high school diploma, submit required placement scores on the TABE test, and complete at least twenty-five (25%) of the ATD requirements at IRSC with a cumulative GPA of 2.0 or higher.

The Applied Technology Diploma and the Technical Certificate are designed to prepare the student to obtain employment as a skilled/paraprofessional worker. Students may then complete the remaining requirements for the Associate in Science or Associate in Applied Science Degree programs while employed.

The A.S. and A.A.S. Degrees include a cluster of General Education courses in the areas of Humanities/Fine Arts, Natural Science/Mathematics, and Social/Behavioral Science. Students also complete credits in an area of specialty, and additional credits are earned in technical support classes.

The **Advanced Technical Certificate (ATC)** is a specialized certification in a technical area beyond the award of the A.S./A.A.S. Degrees.

Effective Fall Term 2000, a statewide articulation agreement between the State University System and the Community Colleges of Florida provides for the articulation of selected Associate in Science Degrees to selected Baccalaureate Degrees (State Board of Education Rule 6A-10.024). The programs available at IRSC are Nursing-Associate Degree, Radiography and Criminal Justice. Consult Educational Services to determine specific requirements.

Other A.S. Degree programs not included in this agreement may also be accepted by public and private upper division institutions. This determination is made by the receiving university or college and not by IRSC. Consult Educational Services to determine specific requirements.

## ASSOCIATE IN SCIENCE/ASSOCIATE IN APPLIED SCIENCE DEGREE REQUIREMENTS

To meet the requirements for the Associate in Science and Associate in Applied Science Degrees, the student must complete the required General Education courses and program specialty requirements as specified in this catalog. In addition, the student must:

1. Submit the required placement scores (ACTE, SATR, CPT) to IRSC. Students who test into college preparatory instruction must successfully complete the required college preparatory courses in English, math, and reading.
2. Achieve a cumulative grade point average of not less than 2.0 in all courses attempted (including transfer hours, but, excluding college preparatory courses) and in all courses taken at Indian River State College.
3. Demonstrate competency in the basic use of computers by passing a computer competency examination, by successfully completing an approved computer course (grade of "S" or "C" or better), or by completing an approved program of study that includes the basic use of computers.
  - A. The computer competency examination may be taken at any of the IRSC Assessment Services Department.

Demonstration of competency in the basic use of computers includes:

    - 1) running a Windows-based (or equivalent) program;
    - 2) using a word processing program to create, save, retrieve, edit, and print a file;
    - 3) using the Internet to send e-mail and to locate and to print specific reference materials.
  - B. Courses approved to meet the computer competency requirement for the Associate in Science or Associate in Applied Science Degree are: CGS 1060; CGS 1100; CIS 1000; EME 2040; OST 1713.
  - C. Completion of the Information Systems & Computer Applications CLEP examination with a minimum score of 50.
  - D. Programs approved to meet the computer competency requirement for the Associate in Science/Associate in Applied Science Degree are:
    - Accounting Technology
    - Agricultural Production Technology
    - Architectural Design and Construction Technology
    - Business Administration
    - Civil Engineering Technology
    - Computer Information Technology
    - Drafting and Design Technology
    - Electronics Engineering Technology
    - Golf Course Operations
    - Graphic Design Technology
    - Health Information Management
    - Health Services Management
    - Interior Design Technology
    - Landscape and Horticulture Technology

- Marketing Management
  - Office Administration
  - Physical Therapist Assistant
  - Radiography
  - Theatre and Entertainment Technology
4. Students must complete at least twenty-five (25%) of the program requirements at IRSC (see page 132).
  5. Students earning the Associate in Science Degree must earn a grade of “C” or higher in math and English courses selected that are designated as Gordon Rule courses.
  6. Apply for graduation by the published deadline date of the semester in which the student plans to graduate. This application must include the payment of the Commencement fee. See Academic Calendars near the front of this catalog for deadline dates.
  7. Participate in the Commencement Ceremony if graduating Spring Semester. Graduates from other semesters are welcome to take part in the Spring Commencement Ceremony.
  8. Be recommended by the faculty to the President of the College for the confirmation of the degree.

It is the responsibility of the student, not the College, to check his or her records to be sure that all of the above graduation requirements are met. An Educational Services Advisor/Counselor will assist at any time with course selections and in determining status toward meeting the graduation requirements.

## **SPECIAL REQUIREMENTS**

Applicants to the Health Science programs at IRSC are subject to special admission requirements and dates. Therefore, it is imperative that applicants who wish to enroll in the Associate Degree Nursing, Dental Lab Technology, Dental Hygiene, Emergency Medical Services Technology, Medical Lab Technology, Physical Therapist Assistant, Radiography, and Respiratory Care Programs consult with an IRSC advisor/counselor well before the term of enrollment. Special application deadlines are noted in the Academic Calendar near the front of this catalog. Additional General Education credits may be required for specialized programs.

## **ASSOCIATE IN SCIENCE/ASSOCIATE IN APPLIED SCIENCE DEGREE COURSES REQUIRED FOR GRADUATION**

GENERAL EDUCATION - A minimum of 15 credits of General Education courses are required. See Program Guides for specific requirements. At least one course from each of the following areas must be included:

### *HUMANITIES/FINE ARTS*

\*AML 2010, \*AML 2020, \*ARH 1000, \*ARH 2050, \*ARH 2051, ART 1300C, ART 1301C, ART 2500C, CHI 1120, CHI1121, CHI 2220, CHI 2221, CRW 2001, CRW 2002, \*ENC 1101, \*ENC 1102, \*ENC 1107, \*ENC 2210, \*ENC 2133, \*ENG 1123, \*ENG 1124, \*ENL 2012, \*ENL 2022, FRE 1120, FRE 1121, FRE 2220, FRE 2221, GER 1120, GER 1121, \*HUM 1233, \*HUM 1533, \*HUM 1541, \*HUM 2395, \*HUM 2512, \*IDS 1110, \*IDS 1955, \*JOU 2702, \*LIT 2110, \*LIT 2120, LIT 2330, \*MUL

2010, \*MUL 2012, \*MUY 2100, \*ORI 1001, \*PHH 2060, \*PHH 2403, \*PHH 2603, \*PHI 1002, \*PHI 1010, \*PHI 1103, PHI 1450, \*PHI 1635, \*PHI 1801, \*PHI 2630, REA 1205, \*REL 1300, SPC 1300, \*SPC 1608, SPN 1120, SPN 1121, SPN 2220, SPN 2221, \*THE 1000, \*THE 2300, \*TPP 1110

**\*Gordon Rule Course**

#### *NATURAL SCIENCE/MATHEMATICS*

Natural Science: AST 1002, AST 1002L, BOT 2010, BOT 2010L, BSC 1005, BSC 1005L, BSC 1009, BSC 1084, BSC 1254, BSC 1254L, BSC 1421, BSC 1421L, BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, BSC 2093, BSC 2093L, BSC 2094, BSC 2094L, BSC 2426, BSC 2426L, BSC 2427, BSC 2427L, CHM 1020, CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, CHM 1083, CHM 2210, CHM 2210L, CHM 2211, CHM 2211L, CHS 1510, ESC 1000, MCB 2010, MCB 2010L, MET 1001, OCB 1000, OCB 1000L, OCB 1630, OCB 1630L, OCB 1951C, OCE 2001, OCE 2001L, PCB 1030, PHY 1020, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L, PHY 2053, PHY 2053L, PHY 2054, PHY 2054L, PSC 1341, PSC 1341L

\*Mathematics: MAC 1105, MAC 1140, MGF 2106, MGF 2107, MAC 1114, MAC 2311, MAC 2312, MAC 2313, MAC 2233, MAC 2234, MAD 2104, MAP 2302, MAS 2103, MTG 2204, STA 2023, PHI 2100, (MAT 1033 and MTB 1321 may be used for A.A.S. programs, not Gordon Rule)

**\*Gordon Rule** – must achieve a grade of “C” or higher for the Associate in Science Degree.

Regardless of degree requirements, a series of college preparatory math courses will be required of all students who test into college preparatory level math.

#### *SOCIAL/BEHAVIORAL SCIENCE*

AFH 1000, AMH 2010, AMH 2020, ANT 1000, ANT 2010, ANT 2402, ANT 2410, ANT 2140, ASH 2041, ASN 1010, CPO 2002, DEP 2004, ECO 2000, ECO 2013, ECO 2023, EUH 2000, EUH 2001, EUH 2002, GEA 2000, INR 2002, INR 2500, POS 1041, POS 2112, PSY 2012, SYG 2000, SYG 2010, WOH 2012, WOH 2022, WOH 2040

When college level exams are successfully passed for Advanced Placement (AP), International Baccalaureate (IB), and the College Level Examination Program (CLEP), the following courses can be awarded for General Education Requirements:

**HUMANITIES** – AML X000 (CLEP), ENL X000 (CLEP)

**MATHEMATICS** – STA 2014 (AP), MAC X147 (CLEP), MHF X202 (IB), MHF X209 (IB)

**SCIENCE** – CHM X020 (AP and CLEP), ISC X050 (IB), ISC X051 (AP), PHY X020 (IB)

**SOCIAL SCIENCE** – EUH X009 (AP), GEO X400 (AP), AMH X000 (AP)

#### **ADDITIONAL REQUIREMENTS**

##### *READING*

Regardless of degree requirements, a series of college preparatory reading courses will be required of all students who test into college preparatory level reading.

##### *ELECTIVES*

Additional credits may be required in specific technical fields to complete the degree program. Refer to Program Guides on the following pages for specific program requirements.

*COMPUTER COMPETENCY* – see page 132

## PROGRAM GUIDES

To earn the Associate in Science or Associate in Applied Science Degree, certain General Education requirements and courses for the major must be satisfactorily completed. The following programs meet the requirements for the Associate in Science or Associate in Applied Science Degree and include the required and elective courses generally recommended for job preparedness.

In planning a program of study at Indian River State College, the student is urged to consult an Educational Services Advisor/Counselor. The student is advised to review the overall requirements of the degree program before making course selections.

Final responsibility for choice of program and courses selected rests with the student. Please note, the Planned Major required for the IRSC Application for Admission is the five digit number following the Program Title.

## PRACTICAL TRAINING

An important component of many of the Associate in Science and Associate in Applied Science Degree programs is the practical training experience. This experience is designed to complement and enhance the theoretical program requirements and is closely supervised by IRSC instructors. Specific training activities and assignments are included in course requirements and students in these classes meet at least weekly with instructors to discuss progress, goals, and activities. The credit-hour assignment and grading systems used for these classes is consistent with all other resident college courses. Specific descriptions for these courses are included in the Course Description section of this catalog. Students are encouraged to contact the department chairperson if they have questions regarding any of these classes.

### ACCOUNTING TECHNOLOGY

#### 20450 - 64 CREDITS

#### ACCOUNTING APPLICATIONS CERTIFICATE - 60010

This degree program prepares graduates for intermediate-level accounting positions within the wide range of industries prominent on the Treasure Coast. While providing a strong theoretical foundation, this program emphasizes the development of marketable skills required to succeed in today's highly competitive business world. Traditional classroom instruction is supplemented by "hands-on" micro-computer programming experience to mirror today's accounting services climate.

#### GENERAL EDUCATION

Humanities/Fine Arts

ENC 1101 and ENC 1102 or SPC 1608..... 6 credits

Natural Science/Mathematics

STA 2023..... 3 credits

Social/Behavioral Science

ECO 2013, ECO 2023 ..... 6 credits

#### MAJOR FIELD REQUIRED COURSES - 33 credits

CGS 1060 College Computing ..... 3 credits

or

CGS 1100 Intro to Computer Applications for Business ..... 3 credits

CTS	1205	Excel I.....	3 credits
ENC	2200	Business Communications.....	3 credits
or			
ENC	2210	Technical Communications.....	3 credits
MNA	2100	Interpersonal Relations in Business.....	3 credits
or			
SLS	1261	Essentials of Contemporary Leadership.....	3 credits
ACG	2001	Financial Accounting I.....	3 credits
ACG	2011	Financial Accounting II.....	3 credits
ACG	2071	Managerial Accounting.....	3 credits
ACG	2100	Intermediate Accounting.....	3 credits
BUL	2241	Business Law I.....	3 credits
MAT	1033	Intermediate Algebra.....	3 credits
TAX	2000	Income Tax.....	3 credits

### MAJOR FIELD ELECTIVES - Select 16 credits

GEB	1011	Introduction to Business.....	3 credits
or			
GEB	1931	Introduction to Business Technology.....	3 credits
ACG	2949	Accounting Seminar and Supervised Internship.....	3 credits
APA	1152	Orientation to QuickBooks.....	1 credit
APA	1153	QuickBooks II.....	1 credit
BUL	2242	Business Law II.....	3 credits
CGS	1555	Orientation to Internet.....	1 credit
CIS	1000	Introduction to Information Technology.....	3 credits
COP	2701	Database Programming.....	3 credits
ETI	1932	Introduction to Technology.....	3 credits
FIN	2001	Introduction to Finance.....	3 credits
MAN	2021	Principles of Management.....	3 credits
MAR	2011	Principles of Marketing.....	3 credits
PSY	2012	Introduction to Psychology.....	3 credits

Students may enhance their career success by first completing the 27 credits outlined on the following page which comprise the **Accounting Applications** certificate. Attaining the A.S. Degree is then simply a matter of completing the General Education required courses and the remaining credits of **Major Field** and **Elective** courses.

### ACCOUNTING APPLICATIONS CERTIFICATE - 60010 - 27 CREDITS

#### MAJOR FIELD REQUIRED COURSES - 18 credits

CGS	1100	Intro to Computer Applications for Business.....	3 credits
or			
CTS	1205	Excel I.....	3 credits
ACG	2001	Financial Accounting I.....	3 credits
ACG	2011	Financial Accounting II.....	3 credits
ACG	2071	Managerial Accounting.....	3 credits
ACG	2100	Intermediate Accounting.....	3 credits
TAX	2000	Income Tax.....	3 credits

**MAJOR FIELD ELECTIVES - Select 9 credits**

CGS	1060	College Computing.....	3 credits
ECO	2013	Principles of Economics Macro.....	3 credits
or			
ECO	2023	Principles of Economics Micro.....	3 credits
ENC	2200	Business Communications.....	3 credits
or			
ENC	2210	Technical Communications.....	3 credits
MNA	2100	Interpersonal Relations in Business.....	3 credits
or			
SLS	1261	Essentials of Contemporary Leadership.....	3 credits
APA	1152	Orientation to QuickBooks.....	1 credit
BUL	2241	Business Law I.....	3 credits
COP	2701	Database Programming.....	3 credits

**AGRICULTURAL PRODUCTION TECHNOLOGY  
A0010 - 60 CREDITS  
ASSOCIATE IN APPLIED SCIENCE DEGREE  
AQUACULTURE TECHNOLOGY CERTIFICATE - 60170**

Agriculture, one of the Treasure Coast’s leading industries, offers unmatched career opportunities. Today, all phases of agriculture, from research to production to marketing, demand skilled employees who have the educational background and technical training to develop and apply new technological advances in the field. The A.A.S. Degree in Agricultural Production Technology is designed for students who wish to enter the industry at a mid-management level after two years of college. The Degree offers four areas of specialization: Animal Science, Aquaculture, Citrus, and Environmental Horticulture.

**GENERAL EDUCATION**

Humanities/Fine Arts			
	ENC 1101.....		3 credits
Natural Science/Mathematics			
	see page 134.....		3 credits
Social/Behavioral Science			
	see page 134.....		3 credits
Humanities/Fine Arts or Natural Science/Mathematics or Social/Behavioral Science			
	OCE 2001, OCB 1000 or CHM 1020 recommended.....		6 credits

**MAJOR FIELD REQUIRED COURSES - 19 credits**

AEB	2104	Principles of Agricultural Economics.....	4 credits
AEB	1132	Farm Management.....	3 credits
CGS	1060	College Computing.....	3 credits
MAN	2021	Principles of Management.....	3 credits
MAR	2011	Principles of Marketing.....	3 credits
SBM	1000	Entrepreneurship.....	3 credits

**SUGGESTED SPECIALIZATION ELECTIVES** – Select 26 credits**ANIMAL SCIENCE**

AEB	1135	Florida Cow-Calf Management .....	3 credits
ANS	1003	Introduction to Animal Science .....	3 credits
ANS	1310	Animal Reproduction.....	3 credits
HOS	1010	Fundamentals of Horticulture .....	4 credits
SWS	2102	Soils & Fertilizers.....	3 credits
VME	1104	Animal Health .....	3 credits

**AQUACULTURE**

FAS	1010	Introduction to Aquaculture .....	3 credits
FAS	2020	Principles of Fish Aquaculture.....	4 credits
FAS	2150	Principles of Crustacean Aquaculture.....	4 credits
FAS	2151	Principles of Molluscan Aquaculture .....	4 credits
FAS	2252	Aquatic Animal Health Management .....	4 credits
FAS	2412	Water Quality, Systems & Operations .....	4 credits

**ENVIRONMENTAL HORTICULTURE**

HOS	1010	Fundamentals of Horticulture .....	4 credits
HOS	1060	Compost & Recycling .....	3 credits
ORH	1231	Lawn Care Maintenance .....	3 credits
ORH	1510	Plant Identification .....	3 credits
ORH	2841	Landscape Installation.....	3 credits
ORH	2859	Landscape Design & Maintenance .....	3 credits
PMA	2211	Insects & Diseases of Ornamental Plants.....	3 credits
SWS	2102	Soils & Fertilizers.....	3 credits

**MAJOR FIELD ELECTIVES**

AEB	1943	Agribusiness Work Experience .....	1 - 3 credits
AGR	1540C	Fundamental Principles of Aboriculture .....	3 credits
BUL	2241	Business Law I.....	3 credits
BUL	2242	Business Law II.....	3 credits
CGS	1000	Introduction to Computer Usage .....	3 credits
CGS	1100	Intro to Computer Applications for Business.....	3 credits
DIM	1001	Introduction to Diesel Engines .....	4 credits
ENY	1002	Fundamentals of Entomology.....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
ETD	2568C	CAD-Landscape .....	3 credits
ETI	1932	Introduction to Technology.....	3 credits
FAS	2930	Special Topics in Aquaculture.....	1 - 4 credits
HOS	1930	Special Topics in Horticulture.....	1 - 4 credits
MAN	2300	Human Resource Management .....	3 credits
MAR	2011	Principles of Marketing.....	3 credits
ORH	1511	Plant Identification II .....	3 credits
ORH	1710	Environmental Landscape Management.....	1 credit
ORH	2601	Retail Nursery Operations.....	3 credits
PMT	1100	Welding Certification Prep .....	½ credit
PMT	1120	Electrical Welding I.....	4 credits

PMT	1125	Electrical Welding II.....	4 credits
PMT	1128	Combination Welding.....	4 credits
PMT	2930	Welding Fabrication Techniques .....	3 credits
PMT	2931	Welding Design & Fabrication .....	4 credits
SWS	1102	Irrigation Systems I.....	3 credits
SWS	2304	Irrigation Systems II.....	3 credits
SPN	1000	Spanish for Daily Use I.....	2 credits

**AQUACULTURE TECHNOLOGY CERTIFICATE - 60170 - 26 credits**

**Select 26 credits from the following:**

FAS	1010	Introduction to Aquaculture .....	3 credits
FAS	2020	Principles of Fish Aquaculture.....	4 credits
FAS	2150	Principles of Crustacean Aquaculture.....	4 credits
FAS	2151	Principles of Molluscan Aquaculture .....	4 credits
FAS	2252	Aquatic Animal Health Management .....	4 credits
FAS	2412	Water Quality, Systems & Operations .....	4 credits
FAS	2930	Special Topics in Aquaculture.....	1 - 4 credits
AEB	1943	Agribusiness Work Experience .....	1 - 3 credits
AEB	1132	Farm Management.....	3 credits
SBM	1000	Entrepreneurship .....	3 credits

**AIR CONDITIONING, REFRIGERATION, & HEATING SYSTEMS TECHNOLOGY**

**A0020 - 64 CREDITS**

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

**AIR CONDITIONING, REFRIGERATION, & HEATING SYSTEMS TECHNOLOGY CERTIFICATE - 60250**

As a result of the warm weather, South Florida has one of the nation's most active air conditioning industries. Today, all phases of the air conditioning, heating, and refrigeration industry require skilled employees who have the educational background and technical training to develop and apply new technological advances in the field. At the completion of the Associate in Applied Science Degree in Air Conditioning, Refrigeration, and Heating Systems Technology, graduates are prepared for employment opportunities in residential, commercial, and industrial air conditioning, and refrigeration.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101..... 3 credits

Natural Science/Mathematics

MAT 1033 or higher..... 3 credits

Social/Behavioral Science

see page 134..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 37 credits**

ACR	1008	Principles of A/C & Refrigeration .....	3 credits
ACR	1112	Basic Electricity for A/C & Refrigeration .....	3 credits
ACR	1101	Applied Electricity I .....	3 credits
ACR	1113	Applied Electricity II .....	3 credits
ACR	1103	HVAC Control Systems.....	3 credits
ACR	1208	Refrigerant Recovery & Reclaim .....	1 credit
ACR	1611	Heat.....	3 credits
ACR	1612	Heat Pump Systems.....	3 credits
ACR	1740	Components of Refrigeration .....	3 credits
ACR	2067	Heating & Cooling Load Calculations.....	3 credits
ACR	2071	A/C & Heating Service Management.....	3 credits
ACR	2421	Duct Systems.....	3 credits
ACR	2745	Light Commercial Refrigeration & A/C.....	3 credits

**MAJOR FIELD ELECTIVES - Select 12 credits**

ACR	1931	Special Topics in HVAC.....	½ - 4 credits
ACR	1730	R-410A Certification .....	1 credit
ACR	1731	Green Mechanical Awareness Certification.....	1 credit
ACR	1402	Indoor Air Quality & the EPA .....	1 credit
ACR	1946	A/C Cooperative Work Experience I .....	4 credits
ACR	1947	A/C Cooperative Work Experience II .....	4 credits
ACR	1948	A/C Cooperative Work Experience III .....	4 credits
ACR	1949	A/C Cooperative Work Experience IV .....	4 credits
AER	2758	Automotive A/C & Heating.....	4 credits
ETI	1932	Introduction to Technology.....	3 credits
ETM	1111	Energy in Building Design .....	3 credits
GEB	1931	Introduction to Business Technology .....	3 credits
PMT	1128	Combination Welding I.....	4 credits

**AIR CONDITIONING, REFRIGERATION, & HEATING SYSTEMS TECHNOLOGY****CERTIFICATE - 60250 - 25 CREDITS**

ACR	1008	Principles of A/C & Refrigeration .....	3 credits
ACR	1112	Basic Electricity for A/C & Refrigeration .....	3 credits
ACR	1101	Applied Electricity I .....	3 credits
ACR	1113	Applied Electricity II .....	3 credits
ACR	1208	Refrigerant Recovery & Reclaim .....	1 credit
ACR	1611	Heat.....	3 credits
ACR	1612	Heat Pump Systems.....	3 credits
ACR	2067	Heating & Cooling Load Calculations.....	3 credits
ACR	2071	A/C & Heating Service Management.....	3 credits

**ARCHITECTURAL DESIGN & CONSTRUCTION TECHNOLOGY****20460 - 66 CREDITS**

This degree trains students in the latest methods of producing drawings for a variety of business applications. Most courses combine classroom instruction with lab practice, where real life activities are emphasized. The professional architectural draftsman

prepares construction plans for projects related to the building construction industry. Architectural offices, design/development firms, general contractors, and truss manufacturing plants are just a few of the businesses that engage architectural drafting services.

### GENERAL EDUCATION

#### Humanities/Fine Arts

ENC 1101 ..... 3 credits

#### Natural Science/Mathematics

PHY 1020 ..... 3 credits

#### Social/Behavioral Science

see page 134 ..... 3 credits

#### Humanities/Fine Arts or Natural Science/Mathematics

#### or Social/Behavioral Science

see pages 133 - 134 ..... 6 credits

### MAJOR FIELD REQUIRED COURSES - 33 credits

BCN 1214 Materials & Methods-Basic Structure ..... 3 credits

BCN 1215 Materials & Methods-Finishes & Systems ..... 3 credits

BCN 1250 Architectural Drafting Principles ..... 3 credits

BCN 2251 Architectural Drafting-Residential ..... 3 credits

BCT 1760 Building Codes & Specifications ..... 3 credits

ETD 1320 Introduction to AutoCAD ..... 3 credits

ETD 1842 3D Studio VIZ Level I ..... 3 credits

ETD 2340 AutoCAD Level II ..... 3 credits

ETD 2395 CAD - Architectural ..... 3 credits

ETM 1111 Energy in Building Design ..... 3 credits

IND 1019 Commercial Interior Design II ..... 3 credits

### MAJOR FIELD ELECTIVES - Select 18 credits

BCT 1940 Professional Practice ..... 3 credits

BCT 2770 Construction Est.-Foundation to Structure ..... 3 credits

BCT 2772 Construction Est.-Finishes & Systems ..... 3 credits

ETD 2568C CAD - Landscape ..... 3 credits

ETD 2377 3D Digital Animation I ..... 3 credits

ETD 2378C 3D Digital Animation II ..... 3 credits

ETD 2551 CAD - Civil ..... 3 credits

ETI 1932 Introduction to Technology ..... 3 credits

GIS 1060 Geographic Information Systems with ArcView ..... 3 credits

IND 1462 Introduction to Architectural CAD ..... 3 credits

ORH 2859 Landscape Design & Maintenance ..... 3 credits

## AUTOMOTIVE SERVICE MANAGEMENT TECHNOLOGY

### A0030 - 68 CREDITS

### ASSOCIATE IN APPLIED SCIENCE DEGREE

In the Automotive Service Technology Program students receive a thorough foundation in all aspects of automotive services and maintenance. IRSC's program is certified in all eight categories by the National Institute of Automotive Service Excellence (ASE),

and provides essential training in both the theory and service of today’s automotive systems and components.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101 ..... 3 credits

Natural Science/Mathematics

see page 134 (Recommend PHY 1020) ..... 3 credits

Social/Behavioral Science

see page 134 (Recommend PSY 2012) ..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134 (Recommend SPC 1300) ..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 46 credits**

AER	1081C	Introduction to Automotive Technology.....	3 credits
AER	1198	Engine Overhaul, Repair & Testing.....	4 credits
AER	1498	Suspension, Steering & Alignment.....	4 credits
AER	1598	Automotive Brake Systems.....	4 credits
AER	1694C	Introduction to Automotive Electrical Systems.....	3 credits
AER	2200	Automatic Transmissions & Transaxles .....	4 credits
AER	2398	Manual Drive Train & Axles.....	4 credits
AER	2895C	Advanced Engine Performance .....	4 credits
AER	2898C	Engine Performance.....	4 credits
AER	2695C	Advanced Automotive Electrical Systems .....	4 credits
AER	2758	Automotive A/C & Heating.....	4 credits
DIM	1001	Introduction to Diesel Engines .....	4 credits

**MAJOR FIELD ELECTIVES - Select 7 credits**

AER	1020C	Orientation to Vehicle Maintenance.....	1 - 3 credits
AER	1810	Automotive Work Experience .....	1 - 4 credits
AER	1937	Special Topics in Automotive .....	½ - 4 credits
AER	2139	A1 Engine Repair ASE Test Prep.....	1 credit
AER	2200	A2 Automatic Transmissions/Transaxle ASE Test Prep .....	1 credit
AER	2302	A3 Manual Drive Train & Axles & ASE Test Prep .....	1 credit
AER	2409	A4 Suspension & Steering ASE Test Prep.....	1 credit
AER	2519	A5 Brakes ASE Test Prep .....	1 credit
AER	2696	A6 Electrical/Electronic Systems ASE Test Prep .....	1 credit
AER	2796C	A7 Heating & Air Conditioning ASE Test Prep .....	1 credit
AER	2894	A8 Engine Performance ASE Test Prep.....	1 credit
AER	2890	L1 Auto Advanced Engine Performance Specialty ASE Test Prep .....	1 credit
ARR	1002	Automotive Body I.....	3 credits
CGS	1060	College Computing .....	3 credits
CGS	1100	Intro to Computer Applications for Business.....	3 credits
EGS	1110	Engineering Graphics.....	3 credits
GEB	1011	Introduction to Business.....	3 credits
MNA	2100	Interpersonal Relations in Business .....	3 credits

PMT	1128	Combination Welding I.....	4 credits
SBM	1000	Entrepreneurship .....	3 credits

**BUILDING CONSTRUCTION TECHNOLOGY  
20470 - 64 CREDITS**

Florida is projected as one of the fastest growing areas in the United States for new homes and commercial building construction. This strong growth provides many promising career opportunities for students involved in the building construction field. The Building Construction Technology program emphasizes practical application of management competencies needed by estimators, construction planners, field supervisors, project managers, sales managers, facility directors and managers, builders, and various entrepreneurs.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101..... 3 credits

Natural Science/Mathematics

PHY 1020 and see page 134 ..... 6 credits

Social/Behavioral Science

see page 134..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics  
or Social/Behavioral Science

see pages 133 - 134 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 48 credits**

BCN	1214	Materials & Methods of Construction -Basic Structure .....	3 credits
BCN	1215	Materials & Methods of Construction -Finishes & Systems .....	3 credits
BCN	1272	Plans Interpretation - Residential.....	3 credits
BCN	1721	Construction Accounting & Cost Control.....	3 credits
BCN	1765	Codes & Regulations.....	3 credits
BCN	2440	Concrete Construction Methods.....	3 credits
BCN	2275	Plans Interpretation - Commercial .....	3 credits
BCN	2614	Computer Estimating Construction Costs.....	3 credits
BCT	1562	Plumbing & Electrical Systems.....	3 credits
BCT	1700	Construction Office Practices .....	3 credits
BCT	1703	Principles of Construction Management .....	3 credits
BCT	1760	Building Codes & Specifications.....	3 credits
BCT	2705	Construction Supervision.....	3 credits
BCT	2770	Construction Estimating -Foundation through Basic Structure.....	3 credits
BCT	2772	Construction Estimating- Finishes & Systems.....	3 credits
ETM	1111	Energy in Building Design .....	3 credits

**MAJOR FIELD ELECTIVES - Select 1 credit**

ACR	1008	Principles of A/C & Refrigeration .....	3 credits
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BCN	1779	Construction Process & Procurement.....	1 credit
BCT	1180	Drywall & Insulation Installation/Repair.....	1 credit
BCT	1181	Shingle Roofing Basics -Homeowners and New Roofers .....	1 credit
BCT	1780	Computer Skills-Construction Industry .....	1½ credit
BCT	1785	OSHA Documentation with Electronic Access .....	½ credit
BCT	1931	Special Topics in Building Construction.....	½ - 3 credits
BCT	1940	Professional Practice .....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits

**BUSINESS ADMINISTRATION**  
**A0040 - 64 CREDITS**  
**ASSOCIATE IN APPLIED SCIENCE DEGREE**  
**BUSINESS MANAGEMENT CERTIFICATE – 60030**

This degree prepares students for careers as supervisors and middle managers within both profit-making and governmental sector organizations. Specialized areas include Retail Marketing, Hospitality Management, Insurance, Real Estate and Customer Service, as well as others. While providing students with a sound theoretical foundation, this degree program emphasizes the development of marketable skills in planning, organizing, interpersonal dynamics, and technology.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101..... 3 credits

Natural Science/Mathematics

see page 134 or (\*MAT 1033) ..... 3 credits

Social/Behavioral Science

ECO 2000, \*ECO 2013 or ECO 2023 ..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134 or (\*HUM 1533 and \*BSC 1005) ..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 35 credits**

APA 1111 Introduction to Accounting..... 3 credits  
 or

\*ACG 2001 Financial Accounting I..... 3 credits

CGS 1060 College Computing..... 3 credits  
 or

\*CGS 1100 Intro to Computer Applications for Business..... 3 credits  
 or

CIS 1000 Introduction to Information Technology..... 3 credits

\*ENC 2200 Business Communications..... 3 credits  
 or

ENC 2210 Technical Communications..... 3 credits

\*GEB 1011 Introduction to Business..... 3 credits  
 or

GEB 1931 Introduction to Business Technology..... 3 credits

*MAN	2021	Principles of Management.....	3 credits
or			
MNA	2345	Supervision.....	3 credits
*MNA	2100	Interpersonal Relations in Business.....	3 credits
or			
SLS	1261	Essentials of Contemporary Leadership.....	3 credits
QMB	1001	Mathematics of Business.....	3 credits
or			
*ACG	2011	Financial Accounting II.....	3 credits
BUL	2241	Business Law I.....	3 credits
FIN	2001	Introduction to Finance.....	3 credits
MKA	1303	Mid-Management Seminar I.....	4 credits
MKA	1313	Mid-Management Seminar II.....	4 credits
or			
*MNA	2932	Professional Development.....	4 credits

**SUGGESTED SPECIALIZATION ELECTIVES – Select 14 credits**

**RETAIL MARKETING**

MKA	2041	Retail Management.....	3 credits
MKA	2104	Principles of Visual Merchandising.....	3 credits

**HOSPITALITY MANAGEMENT**

FOS	2201	Sanitation & Safety.....	3 credits
FSS	2263	Food Merchandising & Service.....	3 credits
HFT	1000	Introduction to Hospitality & Tourism.....	3 credits
HFT	2002	Management of the Hospitality Industry.....	3 credits
MKA	2323	Mid-Management Seminar & Supervised Exp. III.....	4 credits

**INSURANCE MARKETING**

RMI	1090	Customer Service Representative.....	3 credits
RMI	2500	Individual Life & Health Insurance.....	3 credits
RMI	2600	Property & Casualty Insurance.....	15 credits

**REAL ESTATE MARKETING**

REE	1040	Real Estate Principles & Practices I.....	4 credits
REE	1180	Real Estate Residential Appraisal ABI.....	6½ credits
REE	1271	Mortgage Broker License Course.....	2 credits
REE	2041	Real Estate Principles & Practices II.....	5 credits
REE	2080	Real Estate Sales Review.....	1 credit
REE	2541	Community Association Management.....	1 credit

**CUSTOMER SERVICE**

*MAR	2011	Principles of Marketing.....	3 credits
MKA	2021	Salesmanship.....	3 credits
MKA	2161	Customer Relations.....	1 credit
MKA	2323	Mid-Management Seminar III.....	4 credits
MNA	1162	Customer Service Technology.....	3 credits

**FINANCE**

FIN	1100	Personal Finance.....	3 credits
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MKA	2021	Salesmanship.....	3 credits
MKA	2161	Customer Relations.....	1 credit
MNA	1162	Customer Service Technology .....	3 credits
MNA	2761	Strategic Planning.....	1 - 3 credits
MNA	2772	Human Relations in the Workplace .....	1 credit
MNA	2781	Communications in the Workplace .....	1 - 3 credits

#### **GOLF SHOP AND GOLF SERVICES MANAGEMENT**

GCO	2632	Golf Course Organization & Administration.....	3 credits
MKA	2041	Retail Management.....	3 credits
MKA	2161	Customer Relations.....	1 credit
MAR	2011	Principles of Marketing.....	3 credits
MKA	2323	Mid-Management Seminar III.....	4 credits

#### **GOLF FACILITIES ADMINISTRATION AND MANAGEMENT**

GCO	2632	Golf Course Organization & Administration.....	3 credits
MAN	2300	Human Resource Management .....	3 credits
MNA	2761	Strategic Planning.....	1 - 3 credits
MKA	2323	Mid-Management Seminar III.....	4 credits

#### **GOLF FACILITIES FOOD AND BEVERAGE MANAGEMENT**

GCO	2632	Golf Course Organization & Administration.....	3 credits
FOS	2201	Sanitation & Safety .....	3 credits
FSS	2263	Food Merchandising & Service .....	3 credits
MKA	2161	Customer Relations.....	1 credit
MKA	2323	Mid-Management Seminar III.....	4 credits

#### **AVIATION**

ATT	1941	Professional Development in Aviation I .....	3 - 6 credits
ATF	1941	Professional Development in Aviation II .....	2 - 9 credits

#### **MAJOR FIELD ELECTIVES**

*AMH	2010	American History Discovery-Reconstruction.....	3 credits
*AMH	2020	American History Reconstruction-Present.....	3 credits
BUL	2242	Business Law II.....	3 credits
*ECO	2023	Principles of Economics Micro .....	3 credits
ETI	1091	Introduction to Emerging Technologies .....	3 credits
FIN	1100	Personal Finance.....	3 credits
GEB	1350	Introduction to International Business .....	3 credits
*MAN	2300	Human Resource Management .....	3 credits
*MAR	2011	Principles of Marketing.....	3 credits
MKA	2323	Mid-Management Seminar III.....	4 credits
MNA	1821	Electronic Commerce.....	3 credits
MNA	2761	Strategic Planning.....	1 - 3 credits
MNA	2781	Communication in the Workplace .....	1 - 3 credits
RMI	1631	Accredited Claims Adjuster (ACA).....	3 credits
RMI	1930	4-40 to 2-20 Conversion Course.....	3 credits
SBM	1000	Entrepreneurship .....	3 credits

Maximum of three courses with CGS, MAN, MKA, MNA, or SLS Prefix

Any one course from the following areas: courses with FRE, GER, ASL, or SPN Prefix

**Please Note:** Classes with asterisks (\*) are required of any student who intends to use the Specialized Articulation Agreement between Indian River State College A.A.S. Degree in Business Administration and Florida Atlantic University B.A. in Social Science with a minor in Business Administration.

Students may enhance their career success by first attaining a **Certificate in Business Management (60030)** by completing 24 credits from the **Major Field Required** or the **Major Field Electives** sections listed in the degree. Attaining the A.A.S. Degree is then simply a matter of completing the General Education required courses and the remaining 25 credits of major field and elective courses.

**BUSINESS MANAGEMENT CERTIFICATE - 60190 - 24 CREDITS  
(CAREER DEVELOPMENT PROGRAM)**

The Professional Career Program is a joint effort of the Career Development Program and the Business Management Department of IRSC. It is designed to enhance the job skills and education of women and men, in order to improve their potential for job satisfaction and promotion. Participants completing the 24 college credit hour curriculum are awarded a Technical Certificate in Business Management which may transfer toward the A.A.S. Degree in Business. Three sections of a Management Seminar permit participants to achieve 12 credits for work experience during their course of study.

CGS	1060	College Computing.....	3 credits
or			
*CGS	1100	Intro to Computer Applications for Business.....	3 credits
or			
*CGS	1000	Introduction to Computer Usage .....	3 credits
GEB	1011	Introduction to Business.....	3 credits
MKA	1303	Mid-Management Seminar & Work Experience I .....	4 credits
MKA	1313	Mid-Management Seminar & Work Experience II .....	4 credits
MKA	2323	Mid-Management Seminar & Work Experience III .....	4 credits
MNA	2100	Interpersonal Relations in Business .....	3 credits
or			
SLS	1261	Essentials of Contemporary Leadership.....	3 credits
QMB	1001	Mathematics of Business .....	3 credits

**CIVIL ENGINEERING TECHNOLOGY  
20490 - 63 CREDITS**

Civil Engineering Technology is devoted to the application of engineering principles and the implementation of technological advances in the design process. The program provides students with the skills necessary to enter the field of civil engineering as a technician. After the student obtains a sound foundation in fundamentals through general and technical core courses, the individual may pursue studies in a variety of special engineering and scientific courses according to the individual's interests and educational objectives.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101 and ENC 1102 or ENC 1107 .....	6 credits
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Natural Science/Mathematics

MAC 1105 or MAC 1140 or MAC 1114  
and PHY 1020 or CHM 1020 or BSC 2010 ..... 6 credits

Social/Behavioral Science

see page 134 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 18 credits**

EGS 1001 Introduction to Engineering ..... 3 credits  
EGS 1110 Engineering Graphics ..... 3 credits  
ETC 2521 Hydraulics & Hydrology ..... 3 credits  
ETD 1320 Introduction to AutoCAD ..... 3 credits  
STA 2023 Elementary Statistics I ..... 3 credits  
SUR 1101 Basic Surveying & Mapping ..... 3 credits

**CORE SPECIALIZATION ELECTIVES – Select 30 credits**

**CIVIL ENGINEERING CORE COURSES**

ETD 2340 AutoCAD Level II ..... 3 credits  
ETD 2551 CAD-Civil ..... 3 credits  
ETD 2554C CAD-Surveying ..... 3 credits  
GIS 1060 Geographic Information Systems with ArcView ..... 3 credits

**ENVIRONMENTAL STUDIES CORE COURSES**

GIS 1041 Introduction to GIS & GPS Application ..... 3 credits  
GIS 1060 Geographic Information Systems with ArcView ..... 3 credits  
GIS 2081 GIS Creation with ArcCAD ..... 3 credits  
PCB 1030 Introduction to Ecology ..... 3 credits

**GEOGRAPHIC INFORMATION SYSTEM (GIS) CORE COURSES**

GIS 1060 Geographic Information Systems with ArcView ..... 3 credits  
GIS 2080 AutoCAD, ADE & MAP ..... 3 credits  
GIS 2081 GIS Creation with ArcCAD ..... 3 credits  
GIS 2350 GIS & Wetlands/Water Resources ..... 3 credits  
GIS 2410 GIS & Land Planning ..... 3 credits  
GIS 2500 GIS & Business Planning ..... 3 credits

**SURVEYING CORE COURSES**

ETD 2340 AutoCAD Level II ..... 3 credits  
ETD 2554C CAD Surveying ..... 3 credits  
GIS 1041 Introduction to GIS & GPS Application ..... 3 credits  
SUR 2400 Legal Aspects of Land Surveying ..... 3 credits  
SUR 2402 Legal Descriptions ..... 3 credits  
SUR 2600 Intermediate Surveying ..... 3 credits

**MAJOR FIELD ELECTIVES**

BCN 1250 Architectural Drafting Principles ..... 3 credits  
BCN 1272 Plans Interpretation - Residential ..... 3 credits  
BCN 1721 Construction Accounting & Cost Control ..... 3 credits  
BCT 1940 Professional Practice ..... 3 credits  
BSC 2010L General Biology I Lab ..... 1 credit  
BSC 2930 Special Topics in Biological Science ..... 1 - 3 credits

CHM	1020	Introduction to Chemistry .....	3 credits
DIG	1930	Special Topics in Digital Media.....	½ - 3 credits
ENC	2210	Technical Communication .....	3 credits
ETD	2350C	AutoCAD Level III .....	3 credits
ETD	2377	3D Digital Animation I .....	3 credits
ETD	2395	CAD – Architectural .....	3 credits
ETD	2568C	CAD – Landscape.....	3 credits
ETI	1932	Introduction to Technology.....	3 credits
GEB	1931	Introduction to Business Technology .....	3 credits
GIS	1041	Introduction to GIS & GPS Applications .....	3 credits
GIS	1931	Orientation to GIS Applications .....	½ - 3 credits
OCB	1630	Marine Ecology .....	3 credits
OCE	2001	Introduction to Oceanography .....	3 credits
SUR	2500	GPS, Electronic, & Geodetic Surveying.....	4 credits

**COMPUTER INFORMATION TECHNOLOGY**

**20500 - 63 CREDITS**

**CISCO CERTIFIED NETWORK ASSOCIATE CERTIFICATE – 60380**

**INFORMATION TECHNOLOGY SUPPORT SPECIALIST CERTIFICATE – 60390**

**COMPUTER PROGRAMMING SPECIALIST CERTIFICATE – 60400**

**WEB PRODUCTION CERTIFICATE – 60410**

**OFFICE SPECIALIST CERTIFICATE – 60420**

This degree provides excellent preparation for a career in computer information technology including but not limited to: applications specialist, programmer, network specialist, and Internet developer. The curriculum provides the conceptual and technological skills required to analyze business situations and to design and develop computer and network hardware and software.

Students are encouraged to consider an area of specialization to enhance their employability. To see recommended curriculum frameworks focused toward such specializations, refer to the semester-by-semester diagrams posted on the departmental website at: <http://faculty.irsc.edu/dept/advancedTechnology/division/compsci.htm>.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101..... 3 credits

Natural Science/Mathematics

PHI 2100 or STA 2023; and MAC 1105 or higher ..... 6 credits

Social/Behavioral Science

see page 134..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 30 credits**

CET 1178 A+ Certification Training I..... 3 credits

CTS 1650 CCNA1: Networking Basics..... 3 credits

CGS 1700 Introduction to Operating Systems..... 3 credits

CTS	2106	Advanced Operating Systems UNIX/Linux.....	3 credits
CIS	1000	Introduction to Information Technology.....	3 credits
CIS	2321	Computer Systems Design.....	3 credits
COP	1830	Web Programming.....	3 credits
COP	2000	Introduction to Computer Programming I.....	3 credits
CTS	1104	Windows Professional.....	3 credits
COP	1332	Visual Basic Programming.....	3 credits
or			
COP	2334	C++ Programming.....	3 credits

**MAJOR FIELD ELECTIVES** - Select 18 credits with at least 12 credits from the list below and a maximum of 6 credits from any course with CEN, CGS, CIS, CTS, or COP prefixes.

ACG	2001	Financial Accounting I.....	3 credits
CTS	2304	Windows Network Infrastructure.....	3 credits
CTS	2651	CCNA2: Router Technology.....	3 credits
CTS	2652	CCNA3: Advanced Routers.....	3 credits
CTS	2653	CCNA4: WAN Technologies.....	3 credits
CGS	1522	Microsoft PowerPoint.....	3 credits
CGS	1540	Introduction to Access.....	3 credits
CGS	1821	Website Development.....	3 credits
CGS	1843	Introduction to E-Commerce.....	3 credits
CGS	1876	Web Animation.....	3 credits
CGS	2172	E-Commerce Design.....	3 credits
CGS	2878	Multimedia Programming.....	3 credits
CIS	2350	Computer Security Policies & Disaster Preparedness.....	3 credits
CIS	2381	Computer Forensics.....	3 credits
COP	1800	Java Programming.....	3 credits
COP	2001	Computer Programming II.....	3 credits
COP	1332	Visual Basic Programming.....	3 credits
or			
COP	2334	C++ Programming.....	3 credits
COP	2360	C# Programming.....	3 credits
COP	2701	Database Programming.....	3 credits
COP	2841	Advanced Web Programming CGI/Perl.....	3 credits
CTS	1155	Introduction to Help Desk Concepts.....	3 credits
CTS	1205	Excel I.....	3 credits
CTS	1225	Advanced Excel.....	3 credits
CTS	1330	Implementation & Supporting MS-Exchange.....	3 credits
CTS	1334	Windows Server.....	3 credits
CTS	2303	Planning Implementing, and Maintaining a Windows Server Active Directory Infrastructure.....	3 credits
CTS	2304	Planning and Maintaining a Windows Server Network.....	3 credits
CTS	2310	Network Security.....	3 credits
CTS	2437	Administering MS SQL Server.....	3 credits
ETI	1091	Introduction to Emerging Technologies.....	3 credits

ETD	1812	QuarkXpress .....	3 credits
or			
OST	2821	Desktop Publishing .....	3 credits
OST	1713	Microsoft Word .....	3 credits
OST	2601	Transcription Technologies .....	3 credits

**CISCO CERTIFIED NETWORK ASSOCIATE CERTIFICATE - 60380 - 12 CREDITS**

**MAJOR FIELD REQUIRED COURSES - 12 credits**

CTS	1650	CCNA1: Networking Basics .....	3 credits
CTS	2651	CCNA2: Router Technology .....	3 credits
CTS	2652	CCNA3: Advanced Routers.....	3 credits
CTS	2653	CCNA4: WAN Technologies .....	3 credits

**INFORMATION TECHNOLOGY SUPPORT SPECIALIST CERTIFICATE - 60390 - 18 CREDITS**

**MAJOR FIELD ELECTIVES - Select 18 credits**

CET	1178	A+ Certification Training I.....	3 credits
CET	1179C	A+ Certification Training II.....	3 credits
CGS	1100	Computer Applications for Business.....	3 credits
CTS	1650	CCNA1: Networking Basics .....	3 credits
CTS	1104	Windows Professional .....	3 credits
CTS	1334	Windows Server.....	3 credits
CTS	1155	Introduction to Help Desk Concepts .....	3 credits

**COMPUTER PROGRAMMING SPECIALIST CERTIFICATE - 60400 - 18 CREDITS**

**MAJOR FIELD ELECTIVES - Select 18 credits**

COP	1332	Visual Basic Programming.....	3 credits
COP	1800	Java Programming.....	3 credits
COP	1830	Web Programming.....	3 credits
COP	2000	Introduction to Computer Programming I .....	3 credits
COP	2001	Computer Programming II.....	3 credits
COP	2334	C++ Programming .....	3 credits
COP	2360	C# Programming.....	3 credits
COP	2701	Database Programming.....	3 credits
COP	2841	Advanced Web Programming CGS/Perl.....	3 credits
CTS	2245	Visual Basic for Applications .....	3 credits

**WEB PRODUCTION CERTIFICATE - 60410 - 15 CREDITS**

**MAJOR FIELD ELECTIVES - Select 15 credits**

CGS	1821	Website Development.....	3 credits
CGS	1843	Introduction to E-Commerce.....	3 credits
CGS	1876	Web Animation .....	3 credits
CGS	2172	E-Commerce Design.....	3 credits
CGS	2878	Multimedia Programming .....	3 credits
COP	1800	Java Programming.....	3 credits
COP	1830	Web Programming.....	3 credits
COP	2000	Introduction to Computer Programming I .....	3 credits
COP	2841	Advanced Web Programming CGS/Perl.....	3 credits

**OFFICE SPECIALIST CERTIFICATE - 60420 - 18 CREDITS**

**MAJOR FIELD REQUIRED COURSES - 18 credits**

OST	1713	Microsoft Word .....	3 credits
CTS	1205	Excel 1.....	3 credits
CGS	1540	Introduction to Access.....	3 credits
CGS	1522	Microsoft PowerPoint.....	3 credits
ENC	2200	Business Communications.....	3 credits
or			
ENC	2210	Technical Communications.....	3 credits
APA	1111	Introduction to Accounting.....	3 credits

**CRIMINAL JUSTICE TECHNOLOGY  
20520 - 64 CREDITS**

This degree offers the student a broad background in the history, philosophy, organization, management, and operation of the criminal justice system. In law enforcement, an emphasis is placed on the role of the police in the process of social control and in the legal and philosophical issues involved. In corrections, emphasis is placed on the supervision, protection, care, custody, and control of offenders. Opportunities for employment are available in law enforcement agencies, correctional institutions, juvenile courts, social service agencies, crime laboratories, and security agencies.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101, ENC 1102.....	6 credits
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Natural Science/Mathematics

see page 134.....	3 credits
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Social/Behavioral Science

see page 134.....	3 credits
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Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134.....	6 credits
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**MAJOR FIELD REQUIRED COURSES - 18 credits**

CCJ	2020	Introduction to Criminal Justice.....	3 credits
CJC	2000	Introduction to Corrections.....	3 credits
CJL	2500	Introduction to the Courts.....	3 credits
CJL	2062	Constitutional Law.....	3 credits
CJL	2100	Criminal Law .....	3 credits
CCJ	1600	Deviant Behavior .....	3 credits

**MAJOR FIELD ELECTIVES - Select 28 credits**

CGS	1100	Intro to Computer Applications-Business .....	3 credits
or			
CGS	1060	College Computing .....	3 credits
ECO	2000	Introduction to Economics.....	3 credits
or			
ECO	2013	Principles of Economics Macro .....	3 credits

CJJ	2002	The Juvenile & the Law .....	3 credits
CJC	2162	Probation & Parole .....	3 credits
CJE	1002	Police Procedures.....	3 credits
CJD	1940	Internship in Criminal Justice .....	3 - 4 credits
CJE	2580	Investigative Interviews.....	3 credits
CJE	1000	Introduction to Law Enforcement .....	3 credits
CJE	1325	Foundations of Law Enforcement Leadership.....	3 credits
CJE	2300	Police Organization and Administration.....	3 credits
CJL	1000	Fundamentals of Law.....	3 credits
CJL	2130	Rules of Evidence.....	3 credits
CJL	2403	Criminal Procedure.....	3 credits
CJE	2600	Criminal Investigation .....	3 credits
CJE	2640	Introduction to Criminalistics.....	3 credits
DSC	1002	Terrorism & U.S. Security .....	3 credits
ECO	2023	Principles of Economics Micro .....	3 credits
POS	1041	American Government .....	3 credits
SYG	2010	Social Problems.....	3 credits

**CRIMINAL JUSTICE TECHNOLOGY  
A0100 - 64 CREDITS  
ASSOCIATE IN APPLIED SCIENCE DEGREE**

This program is designed to enhance the practical skills of the criminal justice professional. This degree offers the student a broad background in the history, philosophy, organization, management, and operation of the criminal justice system. In law enforcement, an emphasis is placed on the role of the police in the process of social control and in the legal and philosophical issues involved. In corrections, emphasis is placed on the supervision, protection, care, custody, and control of offenders. Opportunities for employment are available in law enforcement agencies, correctional institutions, juvenile courts, social service agencies, crime laboratories, and security agencies.

**GENERAL EDUCATION**

Humanities/Fine Arts	
ENC 1101 .....	3 credits
Natural Science/Mathematics	
see page 134.....	3 credits
Social/Behavioral Science	
see page 134.....	3 credits
Humanities/Fine Arts or Natural Science/Mathematics or Social/Behavioral Science	
see pages 133 - 134 .....	6 credits

**MAJOR FIELD REQUIRED COURSES - 18 credits**

CCJ	2020	Introduction to Criminal Justice.....	3 credits
CJC	2000	Introduction to Corrections.....	3 credits
CJL	2500	Introduction to the Courts.....	3 credits
CJL	2062	Constitutional Law.....	3 credits

CJL	2100	Criminal Law .....	3 credits
CCJ	1600	Deviant Behavior .....	3 credits

**\*MAJOR FIELD ELECTIVES** - Select 31 credits

Select any Criminal Justice college credit course with the following prefixes: CJD, CCJ, CJT, CJL, CJE, CJC, CJJ, CJK

or

any of the other following suggested courses:

CGS	1100	Intro to Computer Applications-Business .....	3 credits
or			
CGS	1060	College Computing .....	3 credits
ECO	2000	Introduction to Economics.....	3 credits
or			
ECO	2013	Principles of Economics Macro .....	3 credits
DSC	1002	Terrorism & U.S. Security .....	3 credits
DSC	1860	Introduction to Public Safety Careers .....	3 credits
DSC	1930	Current Topics in Public Safety.....	3 credits
DSC	1557	Florida Personal Radiation Detector .....	1 credit
DSC	1558	Detection Equipment for Law Enforcement.....	1 credit
ECO	2023	Principles of Economics Micro .....	3 credits
POS	1041	American Government .....	3 credits
SYG	2010	Social Problems.....	3 credits

Certain Criminal Justice courses have a prerequisite of Law Enforcement, Corrections, or Correctional Probation Florida Certification. For additional information, please contact (772) 462-7676.

**SUGGESTED ELECTIVES FOR SPECIALIZED TRAINING FOR PRIVATE INVESTIGATORS**

CJE	1330	Ethics for the Justice System.....	3 credits
CJD	1940	Internship in Criminal Justice .....	3 - 4 credits
CJE	2580	Investigative Interviews.....	3 credits
CJE	2635	Injury & Death Investigations .....	3 credits
CJL	1000	Fundamentals of Law.....	3 credits

\*Certified Officers may substitute a maximum of 20 credits of Basic or Advanced Training Courses for Major Field Electives. Contact the Criminal Justice Department for details regarding articulation of Academy training to the A.A.S. Degree.

**DENTAL ASSISTING TECHNOLOGY AND MANAGEMENT**

**20750 - 70 CREDITS (SELECTIVE ADMISSION)**

**DENTAL ASSISTING TECHNOLOGY AND MANAGEMENT**

**APPLIED TECHNOLOGY DIPLOMA - B0050 (SELECTIVE ADMISSION)**

This program prepares graduates for a professional career as a Dental Assistant as well as related dental fields such as marketing, management, and education. Students receive a well rounded general education along with online instruction and traditional labs with clinical experience specific to Dental Assisting Technology and Management.

**GENERAL EDUCATION** - \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

*Humanities/Fine Arts		
ENC 1101	.....	3 credits
*Natural Science/Mathematics		
see page 134	.....	3 credits
*Social/Behavioral Science		
see page 134	.....	3 credits
*Humanities/Fine Arts or Natural Science/Mathematics or Social/Behavioral Science		
see pages 133 - 134	.....	6 credits

**MAJOR FIELD REQUIRED COURSES - 50 credits**

DEA	1025	Preclinical Orientation.....	6 credits
DEA	1025L	Preclinical Orientation Lab .....	2 credits
DES	1800	Introduction to Clinical Procedures .....	2 credits
DES	1800L	Introduction to Clinical Procedures Lab.....	2 credits
DES	1100	Elements of Dental Materials.....	2 credits
DES	1100L	Elements of Dental Materials Lab.....	1 credit
DES	1840	Preventive Dentistry .....	1 credit
DES	1840L	Preventive Dentistry Lab.....	1 credit
DES	1200L	Dental Radiography Lab .....	1 credit
DES	1020	Head Neck and Dental Anatomy .....	3 credits
DEA	1800	Clinical Practice I.....	2 credits
DEA	1800L	Clinical Practice I Lab.....	4 credits
DES	1830	Expanded Functions I.....	2 credits
DES	1830L	Expanded Functions I Lab .....	1 credit
DES	1831	Expanded Functions II.....	2 credits
DES	1831L	Expanded Functions II Lab .....	1 credit
DES	2502	Dental Office Management.....	1 credit
DES	2502L	Dental Office Management Lab .....	1 credit
DEA	1130	Related Dental Theory .....	4 credits
DEA	1931	Orthodontics Expanded Functions .....	1 credit
DES	1053	Nitrous Oxide Monitoring .....	1 credit
DES	1600	Office Emergencies .....	2 credits
DES	1200	Dental Radiography.....	2 credits
DEA	1850	Clinical Practice II.....	1 credit
DEA	1850L	Clinical Practice II Lab.....	4 credits

**SPECIALIZATION ELECTIVES\*\* - 5 credits**

**EDUCATIONAL METHODOLOGIES AND STRATEGIES**

EDF	1081	Introduction to Multicultural Education .....	1/2 - 3 credits
SLS	1101	Student Success .....	3 credits
EME	2040	Introduction to Technology for Educators .....	3 credits
EDF	2085	Introduction to Diversity & Exceptionalities for Educators ...	3 credits
HSC	1242	Instructing Health Professionals .....	1 - 3 credits
CGS	1060	College Computing .....	3 credits
or			
CGS	1100	Introduction to Computer Application for Business .....	3 credits

**MARKETING**

GEB	1011	Introduction to Business.....	3 credits
ECO	2013	Principles of Economics (Macro).....	3 credits
ECO	2023	Principles of Economics (Micro).....	3 credits
MAR	2011	Principles of Marketing.....	3 credits
MKA	2021	Salesmanship.....	3 credits
MKA	1303	Mid-Management Seminar I.....	4 credits
CGS	1060	College Computing.....	3 credits
or			
CGS	1100	Introduction to Computer Application for Business .....	3 credits

**PRACTICE MANAGEMENT**

APA	1111	Introduction to Accounting.....	3 credits
MAN	2021	Principles of Management.....	3 credits
MAN	2300	Human Resource Management .....	3 credits
MKA	2161	Customer Relations.....	1 credit
MNA	2100	Interpersonal Relations in Business .....	3 credits
MNA	2345	Supervision.....	3 credits
HSC	2632	Overview of Healthcare Delivery .....	4 credits
HSA	2182	Health Services Management Concepts .....	4 credits
CGS	1060	College Computing.....	3 credits
or			
CGS	1100	Introduction to Computer Application for Business .....	3 credits

All core curriculum courses require a grade of “C” or higher.

\*\*Students may choose to specialize in an area for career opportunities by taking five credits from one of the **Specialization Electives** listed above.

**DENTAL ASSISTING TECHNOLOGY AND MANAGEMENT**

**APPLIED TECHNOLOGY DIPLOMA B0050 - 50 CREDITS (SELECTIVE ADMISSION)**

Students may enhance their career success by first completing the 50 credit hour Applied Technology Diploma which is designed to prepare students for a career as an Expanded Functions Dental Assistant. Attaining the A.S. Degree is then simply a matter of completing the General Education required courses and specialty elective courses.

DEA	1025	Preclinical Orientation.....	6 credits
DEA	1025L	Preclinical Orientation Lab .....	2 credits
DES	1800	Introduction to Clinical Procedures.....	2 credits
DES	1800L	Introduction to Clinical Procedures Lab.....	2 credits
DES	1100	Elements of Dental Materials.....	2 credits
DES	1100L	Elements of Dental Materials Lab.....	1 credit
DES	1840	Preventive Dentistry.....	1 credit
DES	1840L	Preventive Dentistry Lab.....	1 credit
DES	1200L	Dental Radiography Lab .....	1 credit
DES	1020	Head Neck and Dental Anatomy .....	3 credits
DEA	1800	Clinical Practice I.....	2 credits
DEA	1800L	Clinical Practice I Lab.....	4 credits
DES	1830	Expanded Functions I.....	2 credits
DES	1830L	Expanded Functions I Lab .....	1 credit

DES	1831	Expanded Functions II.....	2 credits
DES	1831L	Expanded Functions II Lab .....	1 credit
DES	2502	Dental Office Management.....	1 credit
DES	2502L	Dental Office Management Lab .....	1 credit
DEA	1130	Related Dental Theory .....	4 credits
DEA	1931	Orthodontics Expanded Functions.....	1 credit
DES	1053	Nitrous Oxide Monitoring.....	1 credit
DES	1600	Office Emergencies .....	2 credits
DES	1200	Dental Radiography.....	2 credits
DEA	1850	Clinical Practice II.....	1 credit
DEA	1850L	Clinical Practice II Lab.....	4 credits

All core curriculum courses require a grade of “C” or higher.

**DENTAL HYGIENE**  
**20530 - 88 CREDITS (SELECTIVE ADMISSION)**

IRSC’s Dental Hygiene Program prepares students to take the Dental Hygiene National and State Licensure Board examinations. Students accepted into the program receive a well-rounded General Education with a strong emphasis on dental hygiene skills.

Dental Hygiene students must also complete the following General Education and Major Field Required Courses:

**GENERAL EDUCATION** – \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

- \*Humanities/Fine Arts  
 ENC 1101, SPC 1608..... 6 credits
- \*Natural Science/Mathematics  
 CHM 1020, BSC 2093, BSC 2093L, BSC 2094,  
 BSC 2094L, MCB 2010, MCB 2010L.....15 credits
- \*Social/Behavioral Science  
 PSY 2012, SYG 2000 .....

**MAJOR FIELD REQUIRED COURSES - 61 credits**

DEH	1003	Pre-Clinical Dental Hygiene .....	1 credit
DEH	1003L	Pre-Clinical Dental Hygiene Lab .....	2 credits
DEH	1130	Oral Embryology & Histology.....	2 credits
DEH	1300	Pharmacology.....	2 credits
DEH	1800	Clinical Dental Hygiene I.....	2 credits
DEH	1800L	Clinical Dental Hygiene I Lab.....	3 credits
DEH	1802	Clinical Dental Hygiene II.....	2 credits
DEH	1802L	Clinical Dental Hygiene II Lab.....	2 credits
DEH	2602	Periodontology.....	2 credits
DEH	2602L	Periodontology Lab.....	1 credit
DEH	2702	Community Dental Health.....	2 credits
DEH	2702L	Community Dental Health Lab .....	1 credit
DEH	2804	Clinical Dental Hygiene III.....	2 credits
DEH	2804L	Clinical Dental Hygiene III Lab.....	4 credits
DEH	2806	Clinical Dental Hygiene IV.....	2 credits

DEH	2806L	Clinical Dental Hygiene IV Lab.....	5 credits
DEH	2400	General Oral Pathology.....	2 credits
DES	1020	Head, Neck & Dental Anatomy.....	3 credits
DES	1100	Elements of Dental Materials.....	2 credits
DES	1100L	Elements of Dental Materials Lab.....	1 credit
DES	1600	Health Office Emergencies.....	2 credits
DES	1800	Introduction to Clinical Procedures.....	2 credits
DES	1800L	Introduction to Clinical Procedures Lab.....	1 credit
DES	1840	Preventive Dentistry.....	1 credit
DES	1840L	Preventive Dentistry Lab.....	1 credit
DES	2830C	Expanded Functions for Dental Hygienists.....	2 credits
DES	1200	Dental Radiography.....	2 credits
DES	1200L	Dental Radiography Lab.....	1 credit
DES	2502	Dental Office Management.....	1 credit
DES	1053	Nitrous Oxide Monitoring.....	1 credit
DES	2051	Pain Control & Anesthesia.....	1 credit
DIE	2201	Nutrition & Diet Therapy.....	3 credits

All core curriculum and natural science courses require a grade of "C" or higher. Anatomy and Physiology I and corequisite lab must be completed by the end of the Fall semester, first year. Anatomy and Physiology II and corequisite lab must be completed by the end of the Spring semester, first year.

## **DENTAL LABORATORY TECHNOLOGY AND MANAGEMENT**

**A0050 - 68 CREDITS (SELECTIVE ADMISSION)**

### **ASSOCIATE IN APPLIED SCIENCE DEGREE**

The Dental Lab Technology (DLT) Program leads to eligibility to take the National Certification Exam for Dental Lab Technologists. Students accepted into the program receive a strong General Education with an emphasis on dental lab skills which enables them to construct dentures, crowns, bridges, and orthodontic appliances from dentists' prescriptions. The program consists of one-third classroom instruction and two-thirds "hands-on" lab practice.

**GENERAL EDUCATION** - \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

\*Humanities/Fine Arts

ENC 1101..... 3 credits

\*Natural Science/Mathematics

CHM 1020 or higher, PHY 1020 or higher..... 6 credits

\*Social/Behavioral Science

see page 134..... 3 credits

\*Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134..... 3 credits

### **MAJOR FIELD REQUIRED COURSES - 53 credits**

DTE	1050	Dental Materials I.....	2 credits
DTE	1010	Oral Anatomy.....	2 credits
DTE	1020	Tooth Physiology & Anatomy Theory.....	2 credits

DTE	1020L	Tooth Physiology & Anatomy Lab.....	3 credits
DTE	1103	Complete Denture Theory.....	2 credits
DTE	1103L	Complete Denture Lab.....	4 credits
DTE	1132	Orthodontic & Pedodontic Theory.....	1 credit
DTE	1132L	Orthodontic & Pedodontic Lab.....	2 credits
DTE	2030	Occlusal Topography Theory.....	1 credit
DTE	2030L	Occlusal Topography Lab.....	2 credits
DTE	2107	Partial Denture Theory.....	2 credits
DTE	2107L	Partial Denture Lab.....	4 credits
DTE	2141	Ceramic Theory.....	2 credits
DTE	2141L	Ceramic Lab.....	4 credits
DTE	2150	Crown & Bridge Theory.....	2 credits
DTE	2150L	Crown & Bridge Lab.....	4 credits
DTE	2151	Advanced Prosthodontics Theory.....	2 credits
DTE	2151L	Advanced Prosthodontics Lab.....	4 credits
DTE	2180	Dental Laboratory Operations.....	2 credits
DTE	2191	Assimilation of Dental Technology.....	2 credits
DTE	2200	Ethics & Jurisprudence.....	1 credit
SBM	1000	Entrepreneurship.....	3 credits

**DRAFTING AND DESIGN TECHNOLOGY**

**20540 - 62 CREDITS**

**AUTOCAD FOUNDATIONS CERTIFICATE – 60320**

**DRAFTING CERTIFICATE – 60330**

This program prepares students for a career as a professional CAD technician. The disciplines covered include architecture, civil engineering, surveying, mechanical engineering, and landscape design, with emphasis in the latest technologies used for rendering, architectural “walk-throughs,” three-dimensional computer animation, and solid and surface modeling. Surveying, architectural, civil and mechanical engineering firms, as well as county offices and manufacturing plants are among the potential employers of this program’s graduates.

**GENERAL EDUCATION**

\*Humanities/Fine Arts

ENC 1101..... 3 credits

\*Natural Science/Mathematics

PHY 1020..... 3 credits

\*Social/Behavioral Science

see page 134..... 3 credits

\*Humanities/Fine Arts or Social/Behavioral Science

or Natural Science/Mathematics

see pages 133 - 134..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 36 credits**

BCN 1250 Architectural Drafting Principles..... 3 credits

CGS 1821 Website Development..... 3 credits

EGS 1110 Engineering Graphics..... 3 credits

ETD	1320	Introduction to AutoCAD.....	3 credits
DIG	1115	Digital Imaging Fundamentals.....	3 credits
ETD	1842	3D Studio VIZ Level I.....	3 credits
ETD	2340	AutoCAD Level II.....	3 credits
ETD	2355	3D Modeling & Surface Generation.....	3 credits
ETD	2365	CAD – Mechanical.....	3 credits
ETD	2395	CAD – Architectural.....	3 credits
ETD	2551	CAD – Civil.....	3 credits
ETD	2568C	CAD – Landscape.....	3 credits

**MAJOR FIELD ELECTIVES – Select 11 credits**

BCT	1940	Professional Practice.....	3 credits
CGS	1871	Introduction to Multimedia.....	3 credits
DIG	1930	Special Topics in Digital Media.....	½ - 3 credits
ENC	2210	Technical Communications.....	3 credits
ETD	1315	Orientation to AutoCAD.....	3 credits
ETD	1316	Orientation to AutoCAD Applications.....	½ credit
ETD	1812	QuarkXpress.....	3 credits
ETD	1817	Adobe Illustrator.....	3 credits
ETD	2350C	AutoCAD Level III.....	3 credits
ETD	2377	3D Digital Animation I.....	3 credits
ETD	2378C	3D Digital Animation II.....	3 credits
ETD	2554C	CAD - Surveying.....	3 credits
ETD	2816C	Digital Video Post Production.....	3 credits
ETD	2819	Adobe Illustrator 2.....	3 credits
ETD	2930	Special Topics in Drafting.....	1 - 3 credits
ETI	1932	Introduction to Technology.....	3 credits
GIS	1060	Geographic Information Systems with ArcView.....	3 credits
GIS	2080	AutoCAD, ADE, & MAP.....	3 credits
GIS	2081	GIS Creation with ArcCAD.....	3 credits
GRA	2111C	Graphics.....	3 credits

**AUTOCAD FOUNDATIONS CERTIFICATE – 60320 - 15 CREDITS**

The AutoCAD Foundations Certificate offers excellent preparation for a career as an entry-level CAD technician. Students are trained in the basic operations in AutoCAD’s two major disciplines as well as technical drawing, dimensioning, and sketching techniques.

**MAJOR FIELD REQUIRED COURSES – 15 credits**

BCN	1250	Architectural Drafting Principles.....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
ETD	2340	AutoCAD Level II.....	3 credits
ETD	2365	CAD – Mechanical.....	3 credits
ETD	2395	CAD – Architectural.....	3 credits

**DRAFTING CERTIFICATE – 60330 - 24 CREDITS**

The Drafting Certificate offers outstanding preparation for a career as a superior CAD technician. Students are trained in the advanced operations in AutoCAD’s three major

disciplines as well as technical drawing, dimensioning, sketching, and advanced 3D modeling techniques.

**MAJOR FIELD REQUIRED COURSES – 24 credits**

BCN	1250	Architectural Drafting Principles.....	3 credits
EGS	1110	Engineering Graphics.....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
ETD	2340	AutoCAD Level II .....	3 credits
ETD	2355	3D Modeling & Surface Generation.....	3 credits
ETD	2365	CAD – Mechanical.....	3 credits
ETD	2395	CAD – Architectural .....	3 credits
ETD	2551	CAD – Civil .....	3 credits

**EARLY CHILDHOOD EDUCATION**

**20480 - 63 CREDITS**

**CHILD DEVELOPMENT & EARLY INTERVENTION CERTIFICATE - 60040**

This program is designed for students pursuing a career in the child care industry. Career goals include teaching in the private sector or teacher’s aide in public and private programs.

**GENERAL EDUCATION**

Humanities/Fine Arts			
	ENC 1101.....		3 credits
Natural Science/Mathematics			
	see page 134 (*BSC 1005).....		3 credits
Social/Behavioral Science			
	see page 134 (*PSY 2012) .....		3 credits
Humanities/Fine Arts or Natural Science/Mathematics or Social/Behavioral Science			
	see pages 133 - 134 (*SYG 2000, *PHI 1103).....		6 credits

**MAJOR FIELD REQUIRED COURSES - 33 credits**

CHD	1104	Introduction to Early Childhood Education .....	2 credits
CHD	1220	Introduction to Child Development .....	3 credits
CHD	1332	Creative Experiences for Children .....	3 credits
CHD	2800	Administering a Child Care Center .....	3 credits
EDF	1021	Social Elements in Early Childhood Education.....	3 credits
EEC	1202	Principles of Early Childhood Curriculum .....	3 credits
EEC	1601	Observing & Recording Behavior.....	3 credits
EEC	1946	Early Childhood Practicum I.....	4 credits
EEX	1013	Special Needs in Early Childhood Education.....	3 credits
HUN	1410	Basic Childhood Nutrition .....	3 credits
SLS	1421	Personal & Career Development.....	3 credits

**MAJOR FIELD ELECTIVES - Select 15 credits**

*CGS	1060	College Computing.....	3 credits
CHD	2334	Early Childhood Language Arts & Reading.....	3 credits
EEC	1520	Early Childhood Organizational Leadership & Mgmt. ....	3 credits

EEC	1947	Early Childhood Practicum II.....	4 credits
EEC	2948	Early Childhood Practicum III.....	4 credits
EEC	2949	Early Childhood Practicum IV .....	4 credits
*ENC	1102	English Composition II.....	3 credits
ETI	1932	Introduction to Technology.....	3 credits
GEB	1931	Introduction to Business Technology .....	3 credits
*MGF	2106	Mathematics for Liberals Arts, or higher .....	3 credits
*PPE	2001	Person & Personality Development.....	3 credits
*SYG	1430	Family Relations .....	3 credits

**Please Note:** Classes with asterisks (\*) are required of any student who intends to use the Specialized Articulation Agreement between Indian River State College A.S. Degree in Early Childhood Education and Florida Atlantic University B.A. in Social Work.

Students may enhance their career success by first attaining a **Certificate in Child Development and Early Intervention (60040)** by completing 36 credits from the **Major Field Required** and **Major Field Electives** sections above. Attaining the A.S. Degree is then simply a matter of completing the General Education required courses and the remaining 12 credits of major field and elective courses.

**ELECTRONICS ENGINEERING TECHNOLOGY  
A0060 - 68 CREDITS  
ASSOCIATE IN APPLIED SCIENCE DEGREE  
LASERS AND PHOTONICS CERTIFICATE - 60290  
BASIC ELECTRONICS CERTIFICATE - 60300  
ELECTRONIC TECHNOLOGY CERTIFICATE - 603100**

Lasers, fiber-optics, robotics, automation, wireless networks, biomedical equipment, space exploration, and modern electric power generation are cutting-edge technologies made possible by electronic engineering. The demand for technicians in these fields is at an all time high. Starting salaries for entry-level technicians in any of these fields are higher than the national average. The Electronics Engineering Technology degree offers specialization options in lasers and photonics, robotics and industrial automation, power plant technology, computer technology, and telecommunications. Industry classes are taught at the Kight Center for Emerging Technologies, with state-of-the-art equipment and instrumentation.

**GENERAL EDUCATION**

Humanities/Fine Arts	
ENC 1101 .....	3 credits
Natural Science/Mathematics	
MTB 1321, PHY 1020 .....	6 credits
Social/Behavioral Science	
see page 134 (ECO 2000 recommended).....	3 credits
Humanities/Fine Arts or Natural Science/Mathematics or Social/Behavioral Science	
see pages 133 - 134 (POS 1041 recommended).....	3 credits

**MAJOR FIELD REQUIRED COURSES - 27 credits**

EET	1724C	Electronic Design Software Tools .....	3 credits
EET	1015C	DC Circuits .....	3 credits
EET	1025C	AC Circuits.....	3 credits
EET	1180C	Troubleshooting & Repair Techniques .....	3 credits
EET	1215C	Introduction to Electronics.....	3 credits
EET	2141C	Electronic Devices I.....	3 credits
EST	2542	Programmable Logic Controllers I.....	3 credits
EST	2544	Programmable Logic Controllers II.....	3 credits
MTB	1322	Technical Mathematics II.....	3 credits

**SUGGESTED SPECIALIZATION ELECTIVES - Select 26 credits**

**BIOMEDICAL ELECTRONICS**

CET	1112C	Logic Circuits I .....	3 credits
CET	1113C	Logic Circuits II .....	3 credits
EET	2142C	Electronic Devices II .....	3 credits
EST	2408	Biomedical Seminar .....	3 credits
EST	2424	Biomedical Electronics.....	3 credits
EST	2427	Advanced Biomedical Electronics .....	3 credits
HSC	2531	Medical Terminology I .....	3 credits

**COMPUTER TECHNOLOGY**

CET	1112C	Logic Circuits I .....	3 credits
CET	1113C	Logic Circuits II .....	3 credits
CET	1178	A+ Certification Training I.....	3 credits
CET	1179C	A+ Certification Training II.....	3 credits
CET	1588	Network + Certification .....	3 credits
CET	1854	Introduction to Wireless Technology .....	3 credits
EET	2142C	Electronic Devices II .....	3 credits

**POWER PLANT Instrumentation Option**

EET	1560	Power Plant Systems.....	3 credits
EET	1580	Power Plant Science.....	3 credits
EST	1572	Power Plant Fundamentals.....	3 credits
EST	2520	Process Measurement Fundamentals.....	3 credits
EST	2530	Process Control Technology.....	3 credits
EST	2700	Fluid & Pneumatic Instruments.....	3 credits
EST	2941	Electronics Internship I .....	2 credits
ETI	1000	Industrial Plant Tools & Equipment.....	3 credits
ETI	1701	Industrial Safety .....	3 credits

**POWER PLANT Electrical Option**

EET	1560	Power Plant Systems.....	3 credits
EET	1580	Power Plant Science.....	3 credits
EET	2515C	Motors & Generators.....	3 credits
EET	2527C	Motor Starters, Controllers, & Breakers .....	3 credits
EET	2547C	Transformers & Power Distribution .....	3 credits
EST	1572	Power Plant Fundamentals.....	3 credits
EST	2941	Electronics Internship I .....	2 credits
ETI	1000	Industrial Plant Tools & Equipment.....	3 credits

ETI 1701 Industrial Safety ..... 3 credits

### **POWER PLANT Mechanical Option**

EET 1560 Power Plant Systems..... 3 credits

EET 1580 Power Plant Science..... 3 credits

EST 1572 Power Plant Fundamentals..... 3 credits

EST 2941 Electronics Internship I ..... 2 credits

ETI 1000 Industrial Plant Tools & Equipment..... 3 credits

ETI 1701 Industrial Safety ..... 3 credits

ETI 1805C Introduction to Rigging & Lifting..... 3 credits

ETI 2315C Pneumatic & Hydraulic Principles..... 3 credits

ETI 2408C Welding Processes ..... 3 credits

ETI 2416C Power Plant Machines & Components I ..... 3 credits

ETI 2417C Power Plant Machines & Components II ..... 3 credits

ETI 2425C Metallurgical Properties & Dynamics..... 3 credits

ETI 2451C Mechanical Maintenance for Power Plants..... 3 credits

### **LASER-PHOTONICS**

CET 1112C Logic Circuits I ..... 3 credits

CET 1113C Logic Circuits II ..... 3 credits

EET 2142C Electronic Devices II ..... 3 credits

EST 2210 Introduction to Photonics..... 3 credits

EST 2215 Geometrical Optics..... 3 credits

EST 2220 Fiber Optics & Data Communications..... 3 credits

EST 2230 Laser Technologies..... 3 credits

### **ROBOTICS-MANUFACTURING**

CET 1112C Logic Circuits I ..... 3 credits

CET 1113C Logic Circuits II ..... 3 credits

EET 2142C Electronic Devices II ..... 3 credits

EST 2630 Manufacturing Processes..... 3 credits

EST 2631 Advanced Manufacturing Processes..... 3 credits

EST 2676 Introduction to Robotics..... 3 credits

EST 2678 Industrial Robotics ..... 3 credits

### **TELECOMMUNICATIONS**

CET 1112C Logic Circuits I ..... 3 credits

CET 1113C Logic Circuits II ..... 3 credits

CET 1854 Introduction to Wireless Technologies ..... 3 credits

EET 2142C Electronic Devices II ..... 3 credits

EET 2325C Telecommunication Circuits I ..... 3 credits

EET 2335C Telecommunication Circuits II ..... 3 credits

EST 2220 Fiber Optics & Data Communications..... 3 credits

### **MAJOR FIELD ELECTIVES**

EST 1041C HTI+ Certification..... 3 credits

CET 1178 A+ Certification Training I..... 3 credits

CET 1179C A+ Certification Training II..... 3 credits

CET 1588 Network + Certification ..... 3 credits

CET 1854 Introduction to Wireless Technology..... 3 credits

CET 2123C Microprocessors I..... 3 credits

CET	2127C	Microprocessors II .....	3 credits
EET	1181C	Electronic Engineering Technology.....	3 credits
EET	2142C	Electronic Devices II.....	3 credits
EET	2325C	Telecommunication Circuits I .....	3 credits
EET	2335C	Telecommunication Circuits II .....	3 credits
EET	2550	Solar Photovoltaic Systems .....	3 credits
EET	2930	Special Topics in Electronic Engineering .....	1/2 - 3 credits
EST	1800	Solar Thermal Systems .....	3 credits
EST	1931	Special Topics in Manufacturing .....	1/2 - 3 credits
EST	2210	Introduction to Photonics.....	3 credits
EST	2215	Geometrical Optics.....	3 credits
EST	2220	Fiber Optics & Data Communications.....	3 credits
EST	2230	Laser Technologies.....	3 credits
EST	2408	Biomedical Seminar .....	3 credits
EST	2424	Biomedical Electronics.....	3 credits
EST	2427	Advanced Biomedical Electronics .....	3 credits
EST	2630	Manufacturing Processes.....	3 credits
EST	2631	Advanced Manufacturing Processes.....	3 credits
EST	2676	Introduction to Robotics.....	3 credits
EST	2678	Industrial Robotics .....	3 credits
EST	2930	Electronic Project Engineering.....	3 credits
EST	2941	Electronics Internship I .....	1 - 2 credits
EST	2942	Electronics Internship II .....	4 credits
ETI	1932	Introduction to Technology.....	3 credits
HSC	2531	Medical Terminology I .....	3 credits

**LASERS AND PHOTONICS CERTIFICATE - 60290 - 12 CREDITS**

**MAJOR FIELD REQUIRED COURSES - 12 credits**

EET	1015C	DC Circuits .....	3 credits
EET	1025C	AC Circuits.....	3 credits
EST	2210	Introduction to Photonics.....	3 credits
EST	2215	Geometrical Optics.....	3 credits

**BASIC ELECTRONICS CERTIFICATE - 60300 - 14 CREDITS**

**MAJOR FIELD REQUIRED COURSES - 14 credits**

EET	1724C	Electronic Design Software Tools .....	3 credits
EET	1015C	DC Circuits.....	3 credits
EET	1025C	AC Circuits .....	3 credits
EET	1215C	Introduction to Electronics .....	3 credits
EET	2930	Special Topics in Electronic Engineering.....	2 credits

**ELECTRONIC TECHNOLOGY CERTIFICATE - 60310 - 31 CREDITS**

**MAJOR FIELD REQUIRED COURSES - 31 credits**

CET	1112C	Logic Circuits I .....	3 credits
CET	1113C	Logic Circuits II .....	3 credits
EET	1724C	Electronic Design Software Tools.....	3 credits
EET	1015C	DC Circuits .....	3 credits

EET	1025C	AC Circuits.....	3 credits
EET	1215C	Introduction to Electronics.....	3 credits
EET	2141C	Electronic Devices I.....	3 credits
EET	2142C	Electronic Devices II.....	3 credits
EET	2930	Special Topics in Electronic Engineering.....	1/2 - 3 credits
EST	2542	Programmable Logic Controllers I.....	3 credits
EST	2544	Programmable Logic Controllers II.....	3 credits

## EMERGENCY ADMINISTRATION AND MANAGEMENT 20730 - 60 CREDITS

### EMERGENCY MANAGEMENT CERTIFICATE - 60260

### HOMELAND SECURITY EMERGENCY MANAGER CERTIFICATE - 60270

This degree prepares students for careers in Emergency Management and Homeland Security. The degree is also for all professional or volunteer agency personnel interested in enhancing technical competencies and preparing themselves for advanced work in disaster relief and humanitarian operations. The curriculum is based on an all-hazards approach to emergency management and emphasizes effective operating procedures under all emergency conditions. Graduates of the program typically find employment as aid agency operators, emergency managers and planners, and homeland security specialists.

#### GENERAL EDUCATION

Humanities/Fine Arts

ENC 1101..... 3 credits

Natural Science/Mathematics

see page 134..... 3 credits

Social/Behavioral Science

see page 134..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134..... 6 credits

#### MAJOR FIELD REQUIRED COURSES - 18 credits

FFP	2820	Principles of Emergency Management.....	3 credits
FFP	2801	Incident Command System.....	3 credits
FFP	2840	Disaster Operations.....	3 credits
DSC	1222	Psychological Management of Disasters.....	3 credits
DSC	1641	Exercise Design & Evaluation.....	3 credits
DSC	2949	Internship in Emergency Management.....	3 credits

#### MAJOR FIELD ELECTIVES - Select 27 credits

CGS	1060	College Computing.....	3 credits
or			
CGS	1100	Intro to Computer Applications in Business.....	3 credits
AER	1020C	Orientation to Vehicle Maintenance.....	1 - 3 credits
DSC	1002	Terrorism & U.S. Security.....	3 credits
DSC	1033	Weapons of Mass Destruction.....	3 credits
DSC	1041	CERT: Basic Training.....	1 credit

DSC	1080	CERT: Refresher Training .....	½ - 1 credit
DSC	1081	CERT: Advanced Training.....	½ - 1 credit
DSC	1552	Critical Infrastructure & Disaster Engineering.....	3 credits
DSC	1557	Florida Personal Radiation Detector .....	1 credit
DSC	1558	Detection Equipment for Law Enforcement.....	1 credit
DSC	1632	Summer Institute in International Disaster Relief.....	3 credits
DSC	1642	Field Training Exercise.....	1 - 3 credits
DSC	1930	Current Topics in Public Safety .....	3 credits
FSS	2206	Quantity Food Production .....	3 credits
GIS	1060	GIS with ArcView .....	3 credits
GIS	1041	Introduction to GIS & GPS Applications .....	3 credits
HUN	1201	Nutrition .....	3 credits
MAN	2021	Principles of Management.....	3 credits
MAN	2300	Human Resource Management .....	3 credits

**EMERGENCY MANAGEMENT CERTIFICATE - 60260 - 24 CREDITS**

**MAJOR FIELD REQUIRED COURSES – 12 credits**

DSC	1641	Exercise Design & Evaluation .....	3 credits
DSC	1930	Current Topics in Public Safety .....	3 credits
FFP	2820	Principles of Emergency Management .....	3 credits
FFP	2840	Disaster Operations .....	3 credits

**MAJOR FIELD ELECTIVES – Select 12 credits**

AER	1020C	Orientation to Vehicle Maintenance.....	3 credits
DSC	1002	Terrorism & U.S. Security .....	3 credits
DSC	1033	Weapons of Mass Destruction .....	3 credits
DSC	1222	Psychological Management of Disasters.....	3 credits
DSC	1552	Critical Infrastructure .....	3 credits
DSC	1632	Summer Institute.....	3 credits
DSC	1642	Field Training Exercise.....	1 - 3 credits
DSC	2949	Internship I Emergency Management.....	3 credits
FSS	2206	Quantity Food Production .....	3 credits
GIS	1041	Introduction to GIS & GPS Applications .....	3 credits
GIS	1060	GIS with ArcView .....	3 credits
HUN	1201	Nutrition .....	3 credits

**HOMELAND SECURITY CERTIFICATE - 60270 - 24 CREDITS**

**MAJOR FIELD REQUIRED COURSES – 12 credits**

DSC	1002	Terrorism & U.S. Security .....	3 credits
DSC	1033	Weapons of Mass Destruction .....	3 credits
DSC	1641	Exercise Design & Evaluation .....	3 credits
FFP	2820	Principles of Emergency Management .....	3 credits

**MAJOR FIELD ELECTIVES – Select 12 credits**

FFP	2840	Disaster Operations .....	3 credits
FFP	2801	Incident Command System.....	3 credits
GIS	1041	Introduction to GIS & GPS Applications .....	3 credits
GIS	1060	GIS with ArcView .....	3 credits

DSC	1552	Critical Infrastructure .....	3 credits
DSC	1632	Summer Institute.....	3 credits
DSC	1642	Field Training Exercise.....	1 - 3 credits
DSC	1930	Current Topics I Public Safety.....	3 credits
DSC	2949	Internship I Emergency Management.....	3 credits

**EMERGENCY MEDICAL SERVICES  
20550 - 73 CREDITS (SELECTIVE ADMISSION)**

**EMERGENCY MEDICAL TECHNOLOGY - APPLIED TECHNOLOGY DIPLOMA**

**B0010 (SELECTIVE ADMISSION)**

**PARAMEDIC CERTIFICATE - 60130 (SELECTIVE ADMISSION)**

The Paramedic Certificate program uses the 1998 National Standard Curriculum from the Department of Transportation, National Highway Safety Administration, to fulfill requirements to practice, under medical direction, the art and science of out-of-hospital medicine. The goal of the program is to provide the graduate with the knowledge, skill, and professional attributes associated with an entry-level Paramedic. Paramedic graduates will be trained to prevent and reduce mortality and morbidity due to illness and injury.

The Emergency Medical Technician Applied Technology Diploma and Paramedic Certificate programs lead to an A.S. Degree in Emergency Medical Services Technology. The A.S. Degree in Emergency Medical Services provides the graduate with a strong general education and science background to enhance and expand the technical knowledge in the EMT and Paramedic Certificate programs.

**GENERAL EDUCATION** - \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

\*Humanities/Fine Arts

ENC 1101 and ENC 1102 or ENC 2210..... 6 credits

\*Natural Science/Mathematics

BSC 1084 or BSC 2094 and BSC 2094L

and

Select any 8 credits from Natural Science/Mathematics

see page 134..... 12 credits

\*Social/Behavioral Science

PSY 2012 or SYG 2000 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 49 credits**

EMS 1119C Emergency Medical Technology ..... 8 credits

EMS 1431 EMT Clinical/Field Experience..... 3 credits

EMS 2601C Paramedic I..... 11 credits

EMS 2602C Paramedic II..... 11 credits

EMS 2664 Paramedic Clinical/Field Experience I ..... 6 credits

EMS 2665 Paramedic Clinical/Field Experience II ..... 6 credits

EMS 2659 Paramedic Field Internship..... 4 credits

**MAJOR FIELD ELECTIVES - Select 3 credits**

any EMS course(s) ..... 3 credits

**EMERGENCY MEDICAL TECHNOLOGY – APPLIED TECHNOLOGY DIPLOMA  
B0010 - 11 CREDITS (SELECTIVE ADMISSION)**

EMS	1119C	Emergency Medical Technology .....	8 credits
EMS	1431	EMT Clinical/Field Experience.....	3 credits

**PARAMEDIC CERTIFICATE - 60130 - 42 CREDITS (SELECTIVE ADMISSION)**

BSC or	1084	Survey of Human Body.....	4 credits
BSC and	2094	Anatomy & Physiology II.....	3 credits
BSC	2094L	Anatomy & Physiology II Lab.....	1 credit
EMS	2601C	Paramedic I.....	11 credits
EMS	2664	Paramedic Clinical/Field Experience I .....	6 credits
EMS	2602C	Paramedic II.....	11 credits
EMS	2665	Paramedic Clinical/Field Experience II .....	6 credits
EMS	2659	Paramedic Field Internship.....	4 credits

All core curriculum and natural science courses require a grade of “C” or higher.

**FIRE SCIENCE TECHNOLOGY  
20570 - 60 CREDITS**

This degree prepares students for careers in the Fire Services and for the fire service or fire protection related professional to enhance technical competencies, and prepare them for career advancement. While providing a scientific understanding of fire hazards and their control, this degree will place emphasis on effective operating procedures at fires and other emergencies. Graduates of the program typically find employment as firefighters, investigators, fire protection and detection specialists, fire engineers, and safety inspectors.

**GENERAL EDUCATION**

Humanities/Fine Arts			
	ENC 1101 .....		3 credits
Natural Science/Mathematics			
	see page 134.....		3 credits
Social/Behavioral Science			
	see page 134.....		3 credits
Humanities/Fine Arts or Natural Science/Mathematics or Social/Behavioral Science			
	see pages 133 - 134 .....		6 credits

**MAJOR FIELD REQUIRED COURSES - 12 credits**

FFP	1000	Introduction & Orientation to Firefighting .....	3 credits
FFP	1505	Fire Inspection Practices .....	3 credits
FFP	1812	Engine & Truck Company Fireground Operations .....	3 credits
FFP	2810	Firefighting Tactics & Strategy I .....	3 credits

**MAJOR FIELD ELECTIVES - Select 33 credits**

CGS or	1000	Introduction to Computer Usage .....	3 credits
CGS	1060	College Computing .....	3 credits
CJE	2600	Criminal Investigation .....	3 credits

DSC	1860	Introduction to Public Safety Careers .....	3 credits
DSC	1930	Current Topics in Public Safety .....	3 credits
EMS	1119C	Emergency Medical Technology .....	8 credits
EMS	1431	EMT Clinical/Field Experience .....	3 credits
EMS	1335	Ambulance Emergency Vehicle Operator Course .....	1 credit
FFP	1040	Private Fire Brigade .....	3 credits
FFP	1102	Physical Conditioning for Firefighters .....	1 credit
FFP	1106	Multiple Alarm Operations .....	3 credits
FFP	1109	Occupational Safety & Health for the Fire Service .....	3 credits
FFP	1120	Characteristics of Building Construction .....	3 credits
FFP	1212	Confined Space Rescue I .....	3 credits
FFP	1302	Fire Department Pumping Apparatus .....	3 credits
FFP	1521	Plans Examination & Blueprint Reading .....	3 credits
FFP	1540	Fire Protection & Detection Systems .....	3 credits
FFP	1610	Fire Behavior & Combustion .....	3 credits
FFP	1710	Fire Supervision .....	3 credits
FFP	1792	Officer Leadership: Reinventing the Leader .....	1 credit
FFP	1793	Fire & Life Safety Educator I .....	3 credits
FFP	1930	Contemporary Issues in the Fire Service .....	3 credits
FFP	2111	Fire Chemistry .....	3 credits
FFP	2201	Rope Rescue Practices I .....	3 credits
FFP	2301	Fire Hydraulics .....	3 credits
FFP	2401	Hazardous Materials Technician Module I .....	3 credits
FFP	2402	Hazardous Materials Technician Module II .....	3 credits
FFP	2421	Hazardous Materials Technician Module III .....	3 credits
FFP	2510	Building & Fire Codes I .....	3 credits
FFP	2541	Private Fire Protection Systems II .....	3 credits
FFP	2604	Fire & Arson Investigation .....	3 credits
FFP	2706	Public Information Officer (PIO) .....	3 credits
FFP	2720	Company Officer Leadership .....	3 credits
FFP	2740	Fire Service Course Delivery .....	3 credits
FFP	2741	Fire Service Course Design .....	3 credits
FFP	2770	Legal Issues for the Fire Service .....	3 credits
FFP	2781	Fire Department Organization & Administration .....	3 credits
FFP	2801	Incident Command System .....	3 credits
FFP	2811	Firefighting Tactics & Strategy II .....	3 credits
FFP	2820	Principles of Emergency Management .....	3 credits
FFP	2840	Disaster Operations .....	3 credits
FFP	2949	Internship in Fire Science .....	1 - 4 credits

Successful completion of the state certification exam (license) for this program may entitle a student to receive credit towards the A.S. Degree based on demonstrated competencies.

The following courses satisfy the curriculum required for the Bureau of Fire Standards and Training for the Fire Officer I Certificate Examination: FFP 1120, FFP 1505, FFP 1540, FFP 2720, FFP 2740, FFP 2801, and FFP 2810, FFP 2811.

The following courses satisfy the curriculum required by the Bureau of Fire Standards and Training for the Fire Safety Inspector I Certification Examination: FFP 1540, FFP 1505, FFP 1120, FFP 1521, and FFP 2510.

**GOLF COURSE OPERATIONS**  
**A0070 - 69 CREDITS**  
**ASSOCIATE IN APPLIED SCIENCE**

**TURF EQUIPMENT - APPLIED TECHNOLOGY DIPLOMA - B0030**  
**PEST CONTROL OPERATIONS - APPLIED TECHNOLOGY DIPLOMA - B0020**

Golf Course and Recreational Turf Operations expands and enhances job opportunities for students in one of the fastest growing job markets on the Treasure Coast. The degree and/or applied technology diplomas prepares students for employment and licensure in the areas of installation, design and maintenance of irrigation systems, application and calibration of pesticides for pest prevention, and landscape design and maintenance.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101 and see pages 133, 134 ..... 6 credits

Natural Science/Mathematics

see page 134 ..... 3 credits

Social/Behavioral Science

see page 134 ..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 25 credits**

CGS	1100	Intro to Computer Applications for Business.....	3 credits
GCO	1400	Turfgrass for Golf & Landscaping.....	3 credits
GCO	1402	Turfgrass Science.....	3 credits
GCO	2632	Golf Course Organization/Administration.....	3 credits
HOS	1010	Fundamentals of Horticulture .....	4 credits
MNA	2932	Professional Development.....	3 credits
PMA	2211	Insects & Diseases of Ornamental Plants.....	3 credits
or			
GCO	1450	Integrated Pest Management for Golf Courses.....	3 credits
SWS	2102	Soils & Fertilizers.....	3 credits

**MAJOR FIELD ELECTIVES - Select 29 credits**

DIM	1001	Introduction to Diesel Engines .....	4 credits
ENC	2200	Business Communications .....	3 credits
ENY	1002	Fundamentals of Entomology.....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
ETD	2568C	CAD-Landscape .....	3 credits
GCO	1201C	Golf Course Mechanics I.....	3 credits
GCO	1202C	Golf Course Mechanics II.....	3 credits
GCO	1204	Hydraulics & Electronics .....	3 credits
GCO	1213	Small Engine Repair.....	3 credits
GCO	1214	Preventative Maintenance.....	3 credits
GCO	1930	Special Topics in Golf Course Operations.....	1/2 - 3 credits
GCO	1942	Field Training in Turf Equipment Management.....	3 credits
GCO	1947	Golf Course Design Concepts.....	3 credits
GCO	1611	Golf Course Shop Management.....	3 credits

GCO	2601	Materials Calculations .....	3 credits
GCO	2944	Golf Course Internship .....	3 - 6 credits
GCO	2945	Supervised Work Experience.....	1 - 4 credits
GIS	1931	Orientation to GIS Applications .....	½ - 3 credits
IPM	1323	Application of Pesticides.....	3 credits
ORH	1510	Plant Identification .....	3 credits
ORH	2859	Landscape Design & Maintenance .....	3 credits
PMT	1120	Electric Welding I.....	4 credits
PMT	1128	Combination Welding I.....	4 credits
SWS	1102	Irrigation System I .....	3 credits
SWS	2304	Irrigation System II .....	3 credits
SPN	1000	Spanish for Daily Use .....	2 credits

### **TURF EQUIPMENT – APPLIED TECHNOLOGY DIPLOMA**

#### **BO030 - 38 CREDITS**

The Applied Technology Diploma in Turf Equipment Management provides excellent preparation for a career dedicated to the repair and maintenance of highly specialized equipment. Students are trained to repair and maintain all types of equipment and to organize and manage maintenance facilities.

#### **Select 38 credits from the following:**

CGS	1100	Intro to Computer Applications for Business.....	3 credits
DIM	1001	Introduction to Diesel Engine .....	4 credits
GCO	1201C	Golf Course Mechanics I.....	3 credits
GCO	1202C	Golf Course Mechanics II.....	3 credits
GCO	1204	Hydraulics & Electronics .....	3 credits
GCO	1213	Small Engine Repair.....	3 credits
GCO	1214	Preventive Maintenance .....	3 credits
GCO	1400	Turfgrass for Golf & Landscaping.....	3 credits
GCO	1942	Field Training in Turf Equipment Management .....	3 credits
GCO	2632	Golf Course Organization/Administration.....	3 credits
GCO	2945	Supervised Work Experience.....	1 - 4 credits
MNA	2932	Professional Development Seminar I.....	3 credits
PMT	1120	Electric Welding I.....	4 credits
PMT	1128	Combination Welding I.....	4 credits
SPN	1000	Spanish for Daily Use .....	1 credit

### **PEST CONTROL OPERATIONS - APPLIED TECHNOLOGY DIPLOMA**

#### **BO020 - 24 CREDITS**

Students may increase their opportunities for employment by completing the 24 credit Pest Control Operations Applied Technology Diploma. These courses will prepare the student for the licensure exam in \*Restricted Pesticides Applications.

#### **Select 24 credits from the following:**

ENY	1002	Fundamentals of Entomology.....	3 credits
GCO	1400	Turfgrass for Golf & Landscaping.....	3 credits
GCO	1402	Turfgrass Science.....	3 credits
GCO	1450	Integrated Pest Management for Golf Courses.....	3 credits

GCO	2601	Materials Calculations .....	3 credits
HOS	1010	Fundamentals of Horticulture .....	4 credits
IPM	1323	Application of Pesticides.....	3 credits
ORH	1510	Plant Identification .....	3 credits
ORH	1511	Plant Identification II .....	2 credits
PMA	2211	Insects & Diseases of Ornamental Plants.....	3 credits
SWS	2102	Soils & Fertilizers.....	3 credits

\*One year of documented experience in Pest Control is required for those seeking licensure in Restricted Pesticides Application.

**GRAPHIC DESIGN TECHNOLOGY  
20580 - 64 CREDITS**

- GRAPHIC DESIGN SUPPORT CERTIFICATE – 60340  
GRAPHIC DESIGN PRODUCTION CERTIFICATE – 60350  
DIGITAL MEDIA SUPPORT CERTIFICATE – 60360  
DIGITAL MEDIA PRODUCTION CERTIFICATE – 60370**

By providing students with theoretical and classroom experience which closely parallels on-the-job activities, this program prepares students for careers in the graphics, printing, and advertising industries. Graphics Design Technology prepares students for employment as designers, commercial artists, computer graphic designers, layout production, and entry-level multimedia graphics. It requires knowledge of art, communication, and computer skills to be applied with design techniques and knowledge required to enter the field of graphic design as a technical specialist. The structure of the degree program requires the student to obtain a solid foundation in the fundamentals through general education and technical core courses. The specialization can be used to further enhance the expertise.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101 and ENC 1102 or ENC 1107 ..... 6 credits

Natural Science/Mathematics

PHY 1020 or higher ..... 3 credits

Social/Behavioral Science

see page 134..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social Behavioral Science

see pages 133 - 134 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 15 credits**

DIG 1000 Digital Media Principles ..... 3 credits

or

ART 1201C Color & Design I..... 3 credits

ETD 1320 Introduction to AutoCAD..... 3 credits

DIG 1115 Digital Imaging Fundamentals..... 3 credits

ETD 1817 Adobe Illustrator ..... 3 credits

ETD 2377 3D Digital Animation I ..... 3 credits

**CORE SPECIALIZATION ELECTIVES** – Select 34 credits**DIGITAL MEDIA CORE COURSES**

ETD	2378C	3D Digital Animation II .....	3 credits
ETD	2816C	Digital Video Post Production .....	3 credits
GRA	2161	2D Digital Animation .....	3 credits
DIG	2030	Digital Video Fundamentals.....	3 credits
GRA	2714	Digital Video Production II.....	3 credits

**GRAPHIC DESIGN CORE COURSES**

ETD	1812	QuarkXpress .....	3 credits
ETD	2818	PhotoShop Level II.....	3 credits
ETD	2819	Adobe Illustrator 2.....	3 credits
GRA	1206	Typography.....	3 credits

**MULTIMEDIA CORE COURSES**

CGS	1821	Website Development .....	3 credits
CGS	1876	Web Animation .....	3 credits
CGS	2878	Multimedia Programming.....	3 credits
ETD	2816C	Digital Video Post Production .....	3 credits

**MAJOR FIELD ELECTIVES**

ART	1203C	Color & Design II.....	3 credits
ART	1300C	Drawing I .....	3 credits
BCN	1250	Architectural Drafting Principles.....	3 credits
BCT	1940	Professional Practice .....	3 credits
CGS	2874	Advanced Multimedia .....	3 credits
DIG	1930	Special Topics in Digital Media.....	½ - 3 credits
EGS	1110	Engineering Graphics.....	3 credits
ENC	2210	Technical Communications.....	3 credits
ETD	1842	3D Studio VIZ Level I.....	3 credits
ETD	1861	Introduction to Digital Photography.....	1 credit
ETD	2340	AutoCAD Level II .....	3 credits
ETI	1091	Introduction to Emerging Technologies .....	3 credits
ETI	1634	Introduction to Industrial Design.....	3 credits
FIL	1030	History of Film.....	3 credits
GEB	1931	Introduction to Business Technology .....	3 credits
GIS	1060	Geographic Information Systems with ArcView .....	3 credits
GRA	2160	Adobe Animation I – Live Motion .....	3 credits
TPA	1200	Beginning Stagecraft .....	3 credits

Up to two courses with PGY prefix

**GRAPHIC DESIGN SUPPORT CERTIFICATE – 60340 - 15 CREDITS**

This Graphic Design Support Certificate offers basic preparation for a career as an Assistant Graphic Designer. Students are trained in image editing and graphic layout, basic graphic design, photo enhancement, illustrations and publishing techniques.

**MAJOR FIELD REQUIRED COURSES** – 15 credits

DIG	1115	Digital Imaging Fundamentals.....	3 credits
ETD	1817	Adobe Illustrator .....	3 credits

ETD	2818	PhotoShop Level II.....	3 credits
ETD	2819	Adobe Illustrator 2.....	3 credits
DIG	1000	Digital Media Principles.....	3 credits

**GRAPHIC DESIGN PRODUCTION CERTIFICATE – 60350 - 24 CREDITS**

This Graphic Design Production Certificate offers advanced preparation for a career as a Graphic Production Artist or assistant. Students are trained in graphic design techniques, image editing and enhancement, layout, Web design, typography, illustrations and publishing techniques.

**MAJOR FIELD REQUIRED COURSES – 24 credits**

CGS	1821	Website Development.....	3 credits
ETD	1812	QuarkXpress.....	3 credits
DIG	1115	Digital Imaging Fundamentals.....	3 credits
ETD	1817	Adobe Illustrator.....	3 credits
ETD	2818	PhotoShop Level II.....	3 credits
ETD	2819	Adobe Illustrator 2.....	3 credits
DIG	1000	Digital Media Principles.....	3 credits
GRA	1206	Typography.....	3 credits

**DIGITAL MEDIA SUPPORT CERTIFICATE – 60360 - 15 CREDITS**

The Digital Media Support Certificate offers basic preparation for a career as a Digital Media Support Technician or developer. Students are trained in video creation and 2D/3D animation production techniques as well as basic graphic design, photo enhancement, illustrations, layout, and non-linear video editing techniques.

**MAJOR FIELD REQUIRED COURSES – 15 credits**

CGS	1821	Website Development.....	3 credits
DIG	1115	Digital Imaging Fundamentals.....	3 credits
GRA	2161	2D Digital Animation.....	3 credits
DIG	2030	Digital Video Fundamentals.....	3 credits
GRA	2714	Digital Video Production II.....	3 credits

**DIGITAL MEDIA PRODUCTION CERTIFICATE – 60370 - 24 CREDITS**

The Digital Media Production Certificate offers advanced preparation for a career as a Digital Media Production Creator or Web Production Assistant. Students are trained in the advanced operations of digital media creation, Web content design, and animation development as well as complex graphic design, photo enhancement, illustrations, layout, and non-linear video editing and production techniques.

**MAJOR FIELD REQUIRED COURSES – 24 credits**

DIG	1115	Digital Imaging Fundamentals.....	3 credits
ETD	1817	Adobe Illustrator.....	3 credits
ETD	2377	3D Digital Animation I.....	3 credits
CGS	1821	Website Development.....	3 credits
GRA	2160	Adobe Animation I – Live Motion.....	3 credits
GRA	2161	2D Digital Animation.....	3 credits
DIG	2030	Digital Video Fundamentals.....	3 credits
GRA	2714	Digital Video Production II.....	3 credits

**HEALTH INFORMATION MANAGEMENT**  
**20590 - 67 CREDITS (SELECTIVE ADMISSION)**  
**MEDICAL INFORMATION CODER/BILLER CERTIFICATE - 60200**

This degree program prepares the student for employment as a Health Information Technician (HIT) in an exciting variety of healthcare settings. Responsibilities include coding of diagnoses and procedures; and processing, confidentiality, storage and retrieval of health information. Lectures, activities and student projects focus on medical-legal aspects, quality improvement, healthcare data analysis, and supervision of health information employees. Students benefit from classroom lecture, computer laboratory preparation, and internship experience in local healthcare facilities under the supervision of qualified professional personnel.

Graduates are eligible to take the Registered Health Information Technician (RHIT) examination. The American Health Information Management Association (AHIMA) awards the RHIT credential to successful candidates. The Health Information Management program at IRSC is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101 ..... 3 credits

Natural Science/Mathematics

BSC 1084 or BSC 2093 and BSC 2093L, and

Any 6 credits from Natural Science/Mathematics,

see page 134 ..... 10 credits

Social/Behavioral Science

PSY 2012 or SYG 2000 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 47 credits**

CGS	1100	Intro to Computer Applications for Business.....	3 credits
ENC	2210	Technical Communications.....	3 credits
HIM	1000	Intro to Health Information Management.....	3 credits
HIM	1012	Legal Aspects of Health Information.....	2 credits
HIM	1222	Basic ICD-9 Coding.....	3 credits
HIM	1273C	Billing & Reimbursement Methods.....	3 credits
HIM	1282	Basic CPT Coding.....	3 credits
HIM	1442	Pharmacology for HIM.....	2 credits
HIM	1510C	Healthcare Data Analysis.....	3 credits
HIM	2433	Pathophysiology.....	3 credits
HIM	2506	Quality Assessment.....	2 credits
HIM	2825	Health Office Internship.....	3 credits
HIM	2826	Health Office Externship.....	3 credits
HSC	2531	Medical Terminology I.....	3 credits
HSC	2532	Medical Terminology II.....	2 credits
MAN	2021	Principles of Management.....	3 credits
MAT	1033	Intermediate Algebra.....	3 credits

**MAJOR FIELD ELECTIVES** – Select 4 credits

HIM	1223	Introduction to Coding.....	2 credits
HIM	1283	Fundamentals of Medical Science.....	4 credits
HSC	1001	Introduction to Health Professions.....	3 credits
HIM	2232	Intermediate ICD-9 Coding .....	2 credits
HIM	2254	Intermediate CPT Coding .....	2 credits
HSC	1802	Health Science Seminar & Supervised Work Exp. ....	3 credits
LIS	1002	Introduction to Electronic Access to Information .....	1 credit
CGS	1520	Orientation to Business Graphics .....	1 credit

**MEDICAL INFORMATION CODER/BILLER CERTIFICATE - 60200 - 36 CREDITS**

This program prepares students for employment in a variety of healthcare settings as an entry level coder, medical record coder, coding technician, or coding clerk. The content includes: medical terminology, anatomy and physiology, coding systems, fundamentals of disease process including pharmacology, health care delivery systems, basics of medical records services, ethical and legal responsibilities, safety/security procedures, basic data processing, and employability skills. The program consists of classroom lecture, laboratory and clinicals.

**MAJOR FIELD REQUIRED COURSES** – 36 credits

BSC	1084	Survey of the Human Body .....	4 credits
or			
HIM	1283	Fundamentals of Medical Science.....	4 credits
or			
BSC	2093	Anatomy & Physiology with BSC 2093L.....	4 credits
HIM	1000	Intro to Health Information Management.....	3 credits
HIM	1012	Legal Aspects of Health Information.....	2 credits
HIM	1222	Basic ICD-9 Coding.....	3 credits
HIM	1273C	Billing & Reimbursement Methods .....	3 credits
HIM	1282	Basic CPT Coding .....	3 credits
HIM	1442	Pharmacology for HIM.....	2 credits
HIM	1510C	Healthcare Data Analysis.....	3 credits
HIM	2232	Intermediate ICD9 Coding .....	2 credits
HIM	2254	Intermediate CPT Coding .....	2 credits
HIM	2433	Pathophysiology.....	3 credits
HIM	2825	Health Information Internship .....	3 credits
HSC	2531	Medical Terminology I .....	3 credits

**HEALTH SERVICES MANAGEMENT**  
**20740 - 62 CREDITS (SELECTIVE ADMISSION)**

This degree prepares students for management roles in a healthcare environment. The program is intended for individuals interested in entering the healthcare field and healthcare personnel who have completed a post secondary adult vocational or college certificate from an accredited certificate program in a health science area and have successfully completed licensure/certification exams.

**GENERAL EDUCATION** – \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

Humanities/Fine Arts

ENC 1101 and PHI 1635 or PHI 2630 ..... 6 credits

Natural Science/Mathematics

see page 134 ..... 6 credits

Social/Behavioral Science

PSY 2012, ECO 2000 ..... 6 credits

**MAJOR FIELD REQUIRED COURSES** - 44 credits

ACG 2001 Financial Accounting I ..... 3 credits  
or

APA 1111 Introduction to Accounting..... 3 credits

CGS 1060 College Computing ..... 3 credits  
or

CGS 1100 Intro to Computer Applications-Business ..... 3 credits

BUL 2241 Business Law I ..... 3 credits

GEB 1011 Introduction to Business..... 3 credits

HSA 2182 Health Services Management Concepts ..... 4 credits

HSC 1001 Introduction to Health Professions..... 3 credits

HSC 1802 Health Science Seminar/Work Experience ..... 3 credits

HSC 2531 Medical Terminology I ..... 3 credits

HSC 2632 Overview of Healthcare Delivery ..... 4 credits

HSC 2810 Health Service Management Practicum..... 6 credits

MAN 2300 Human Resource Management ..... 3 credits

MNA 2345 Supervision ..... 3 credits

MAR 2011 Principles of Marketing ..... 3 credits

**COMPETENCY VALIDATION ELIGIBLE COURSES:**

Students who have completed a post secondary adult vocational or college certificate in an Allied Health area from an accredited program and have passed the licensing exam can receive a maximum of 13 competency credits. Before competency validation of credits can occur, the student must submit their state or national license in the respective field to the Health Science Division.

HSC 1001 Introduction to Health Professions..... 3 credits

HSC 1802 Health Science Seminar/Work Experience ..... 3 credits

HSC 2531 Medical Terminology I ..... 3 credits

HSC 2632 Overview of Healthcare Delivery ..... 4 credits

**HUMAN SERVICES  
20600 - 65 CREDITS**

This program prepares beginning Human Services Workers for careers in a wide variety of human services settings including children’s service agencies, state attorneys’ offices, substance abuse facilities, domestic abuse shelters, juvenile intervention programs, social service agencies, and mental health facilities. Students learn techniques and strategies to assist clients in identifying problematic behavior and promoting positive

personal growth. Students will acquire both theoretical as well as practical expertise in the Human Services field.

A specialized articulation agreement between IRSC (A.S. Degree in Human Services) and Florida Atlantic University (Bachelor of Social Work Degree) makes it possible for IRSC Human Services students to make a “seamless” transition to the B.S.W. Degree program at the FAU Campus at St. Lucie West. **Students electing this option must take all classes marked with asterisks (\*).** Both this option as well as the standard Human Services track total 65 credit hours and include the Human Services Internship.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101 ..... 3 credits

Natural Science/Mathematics

see page 134 or \*BSC 2010 or \*BSC 1005 ..... 3 credits

Social/Behavioral Science

see page 134 or \*PSY 2012, \*SYG 2000 ..... 6 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134 or \*PHI 1103 ..... 3 credits

**\*MAJOR FIELD REQUIRED COURSES - 31 credits**

CLP 2140 Abnormal Psychology ..... 3 credits

HUS 1001 Introduction to Human Services..... 3 credits

HUS 1200 Group Dynamics ..... 3 credits

HUS 1400 Introduction to Drugs of Abuse..... 3 credits

HUS 2301 Counseling Techniques ..... 3 credits

HUS 2302 Techniques of Interviewing & Intervention ..... 3 credits

HUS 2401 Substance Abuse & Treatment..... 3 credits

HUS 2500 Introduction to Ethics in Human Services ..... 3 credits

HUS 2820 Internship in Human Services ..... 4 credits

SYG 1430 Family Relations ..... 3 credits

**MAJOR FIELD ELECTIVES - Select 19 credits**

CGS 1000 Introduction to Computer Usage ..... 3 credits

or

\*CGS 1060 College Computing ..... 3 credits

\*BSC 2010L General Biology I Lab ..... 1 credit

or

\*BSC 1005L Life Science Lab ..... 1 credit

CCJ 1600 Deviant Behavior ..... 3 credits

CGS 1061 Orientation to the Computer..... 1 credit

\*DEP 1002 Child & Adolescent Psychology..... 3 credits

\*ENC 1102 English Composition II..... 3 credits

GEY 1000 Issues of the Aging..... 3 credits

HUS 1318 Domestic Abuse & Family Violence..... 3 credits

HSC 2400 First Aid & Safety..... 3 credits

\*HUS 1307 Sexual Abuse of Children..... 3 credits

HUS	2111	Introduction to Interpersonal Behavior.....	3 credits
*MGF	2106	Mathematics for Liberal Arts I or higher.....	3 credits
PHI	1450	Philosophy of Psychology.....	3 credits
*PPE	2001	Person & Personality Development.....	3 credits
SYG	2010	Social Problems.....	3 credits

**INTERIOR DESIGN TECHNOLOGY  
20620 - 75 CREDITS**

**KITCHEN & BATH DESIGN CERTIFICATE - 60280**

**Endorsed by the National Kitchen and Bath Association**

A professional interior designer is qualified by education and experience to identify, research, and creatively solve problems relating to the function and quality of man’s interior environment. The interior designer is a licensed professional in Florida. Education and work experience along with passage of the state examination (NCIDQ) are the requirements to become a licensed interior designer in Florida.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101..... 3 credits

Natural Science/Mathematics

see page 134..... 3 credits

Social/Behavioral Science

see page 134..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics  
or Social/Behavioral Science

see pages 133 - 134..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 56 credits**

BCN	1250	Architectural Drafting Principles.....	3 credits
or			
BCN	2251	Architectural Drafting-Residential.....	3 credits
CTE	1401	Introduction to Textiles.....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
IND	1015	Residential Interior Design.....	3 credits
IND	1020	Principles of Interior Design.....	3 credits
IND	1301	Interior Design Graphics.....	3 credits
IND	1423	Survey of Materials & Resources.....	1 credit
IND	1432	Lighting for Interior Design.....	2 credits
IND	1462	Introduction to Architectural CAD.....	3 credits
IND	1935	Building & Barrier Free Codes.....	3 credits
IND	2016	Commercial Interior Design I.....	3 credits
IND	2100	History of Interiors I.....	3 credits
IND	1134	History of Interiors II.....	3 credits
IND	1019	Commercial Interior Design II.....	3 credits
IND	2420	Materials & Sources of Interior Design.....	3 credits
IND	2500	Interior Design Business Practices.....	3 credits
IND	2910	Kitchen & Bath Design I.....	3 credits

IND	2940	Interior Design Practicum I .....	4 credits
IND	2941	Interior Design Practicum II .....	4 credits

**MAJOR FIELD ELECTIVES - Select 4 credits**

IND	1401	Technical Design I .....	2 credits
IND	2209	Designing for the Aging Client .....	1 credit
IND	2911	Kitchen & Bath Design II.....	2 credits
IND	2931	Special Topics in Interior Design .....	½ - 5 credits
IND	2942	Interior Design Practicum III .....	4 credits

**KITCHEN & BATH DESIGN CERTIFICATE - 60280 - 39 CREDITS**

**MAJOR FIELD REQUIRED COURSES - 36 credits**

BCN	1250	Architectural Drafting Principles.....	3 credits
or			
BCN	2251	Architectural Drafting-Residential .....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
IND	1020	Principles of Interior Design .....	3 credits
IND	1301	Interior Design Graphics .....	3 credits
IND	1423	Survey of Materials & Resources .....	1 credit
IND	1432	Lighting for Interior Design .....	2 credits
IND	1462	Introduction to Architectural CAD.....	3 credits
IND	1935	Building & Barrier Free Codes .....	3 credits
IND	2420	Materials & Sources of Interior Design.....	3 credits
IND	2500	Interior Design Business Practices .....	3 credits
IND	2910	Kitchen & Bath Design I.....	3 credits
IND	2911	Kitchen & Bath Design II.....	2 credits
IND	2940	Interior Design Practicum I .....	4 credits

**MAJOR FIELD ELECTIVES - Select 3 credits**

IND	1401	Technical Design .....	2 credits
IND	2209	Designing for the Aging Client .....	1 credit
IND	2931	Special Topics in Interior Design .....	½ - 5 credits
IND	2941	Interior Design Practicum II .....	4 credits

**LANDSCAPE AND HORTICULTURE TECHNOLOGY**

**A0080 - 64 CREDITS**

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

**LANDSCAPE & HORTICULTURE SPECIALIST CERTIFICATE - 60220**

**LANDSCAPE & HORTICULTURE PROFESSIONAL CERTIFICATE - 60230**

**LANDSCAPE & HORTICULTURE TECHNICIAN CERTIFICATE - 60240**

Horticultural Landscape Design classes are designed to expand and enhance job opportunities for students already in the landscape business. The courses prepare students for employment in the areas of landscape design and maintenance, application of pesticides for pest control and prevention, installation, design and maintenance of irrigation systems, and turf equipment repair and maintenance.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101 and see page 133 - 134 ..... 6 credits

Natural Science/Mathematics

see pages 134 ..... 3 credits

Social/Behavioral Science

see page 134 ..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 28 credits**

CGS	1060	College Computing .....	3 credits
HOS	1010	Fundamentals of Horticulture .....	4 credits
SBM	1000	Entrepreneurship .....	3 credits
ORH	1231	Lawn Care Maintenance .....	3 credits
ORH	1510	Plant Identification .....	3 credits
ORH	2859	Landscape Design & Maintenance .....	3 credits
PMA	2211	Insects & Diseases of Ornamental Plants .....	3 credits
SWS	1102	Irrigation Systems I.....	3 credits
SWS	2102	Soils & Fertilizers.....	3 credits

**MAJOR FIELD ELECTIVES - Select 21 credits**

AEB	1132	Farm Management.....	3 credits
AEB	1943	Agribusiness Work Experience .....	1 - 3 credits
AGR	1540C	Fundamental Principles of Aboriculture .....	3 credits
BCN	1250	Architectural Drafting Principles.....	3 credits
ENY	1002	Fundamentals of Entomology.....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
ETD	2568C	CAD - Landscape .....	3 credits
GCO	1214	Preventative Maintenance.....	3 credits
GCO	1400	Turfgrass for Golf & Landscaping.....	3 credits
GCO	1402	Turfgrass Science .....	3 credits
GCO	2601	Materials Calculations .....	3 credits
GEB	1011	Introduction to Business.....	3 credits
HOS	1060	Compost & Recycling .....	3 credits
HOS	1930	Special Topics in Horticulture.....	1 - 4 credits
IPM	1323	Application of Pesticides.....	3 credits
LDE	2403	Advanced Landscape Design .....	3 credits
MKA	1303	Mid-Management Seminar & Work Experience I .....	4 credits
MNA	2932	Professional Development.....	½ - 5 credits
ORH	1010	Sustainable Landscape Practices.....	3 credits
ORH	1511	Plant Identification II .....	3 credits
ORH	1710	Environmental Landscape Management.....	1 credit
ORH	2601	Retail Nursery Operations.....	3 credits
ORH	2841	Landscape Installation.....	3 credits
ORH	2941	Landscape Field Training.....	3 - 6 credits
SWS	2304	Irrigation Systems II.....	3 credits
SPN	1000	Spanish for Daily Use I .....	2 credits

**LANDSCAPE & HORTICULTURE SPECIALIST CERTIFICATE  
60220 - 12 CREDITS**

HOS	1010	Fundamentals of Horticulture .....	4 credits
ORH	1510	Plant Identification .....	3 credits
ORH	1511	Plant Identification II .....	2 credits
ORH	2859	Landscape Design & Maintenance .....	3 credits

**LANDSCAPE & HORTICULTURE PROFESSIONAL CERTIFICATE  
60230 - 18 CREDITS**

HOS	1010	Fundamentals of Horticulture .....	4 credits
ORH	1510	Plant Identification .....	3 credits
ORH	2859	Landscape Design & Maintenance .....	3 credits
SPN	1000	Spanish for Daily Use I .....	2 credits
SWS	2102	Soils & Fertilizers.....	3 credits
Any HOS, LDE, ORH, PMA, SOS courses .....			3 credits

**LANDSCAPE & HORTICULTURE TECHNICIAN CERTIFICATE  
60240 - 30 CREDITS**

**MAJOR FIELD REQUIRED COURSES - 15 credits**

HOS	1010	Fundamentals of Horticulture .....	4 credits
ORH	1510	Plant Identification .....	3 credits
ORH	2859	Landscape Design & Maintenance .....	3 credits
SWS	2102	Soils & Fertilizers.....	3 credits
SPN	1000	Spanish for Daily Use I .....	2 credits

**With specialization in Horticulture**

ORH	2601	Retail Nursery Operations.....	3 credits
Any HOS, LDE, ORH, PMA, SOS courses .....			12 credits

**With specialization in Landscape Maintenance**

IPM	1323	Application of Pesticides.....	3 credits
ORH	1231	Lawn Care Maintenance .....	3 credits
ORH	2841	Landscape Installation.....	3 credits
PMA	2211	Insects & Diseases of Ornamental Plants .....	3 credits
SWS	1102	Irrigation Systems I.....	3 credits

**With specialization in Landscape Design**

BCN	1250	Architectural Drafting Principles.....	3 credits
CGS	1060	College Computing .....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
ETD	2568C	CAD - Landscape.....	3 credits
LDE	2403	Advanced Landscape Design .....	3 credits

**MARKETING MANAGEMENT  
20650 - 64 CREDITS**

**MARKETING OPERATIONS CERTIFICATE - 60070**

This degree provides excellent preparation for students pursuing careers in sales and marketing within a number of industries prominent on the Research Coast.

While providing a sound theoretical foundation, courses within this degree program emphasize the development of marketable skills essential to career success, including sales techniques, promotional strategies, and prudent management practices.

**GENERAL EDUCATION**

Humanities/Fine Arts  
 ENC 1101 ..... 3 credits

Natural Science/Mathematics  
 see page 134 ..... 3 credits

Social/Behavioral Science  
 ECO 2000, ECO 2013 or ECO 2023 ..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics  
 or Social/Behavioral Science  
 see pages 133 - 134 ..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 35 credits**

APA or	1111	Introduction to Accounting.....	3 credits
ACG	2001	Financial Accounting I.....	3 credits
CGS or	1060	College Computing.....	3 credits
CGS or	1100	Intro to Computer Applications for Business.....	3 credits
CIS	1000	Introduction to Information Technology.....	3 credits
GEB or	1011	Introduction to Business.....	3 credits
GEB	1931	Introduction to Business Technology.....	3 credits
MNA or	2100	Interpersonal Relations in Business.....	3 credits
SLS	1261	Essentials of Contemporary Leadership.....	3 credits
MAN or	2021	Principles of Management.....	3 credits
MNA	2345	Supervision.....	3 credits
ADV	2000	Advertising & Sales Promotion.....	3 credits
MAR	2011	Principles of Marketing.....	3 credits
MKA	1303	Mid-Management Seminar & Supervised Exp. I.....	4 credits
MKA	1313	Mid-Management Seminar & Supervised Exp. II.....	4 credits
MKA	2021	Salesmanship.....	3 credits
QMB	1001	Mathematics of Business.....	3 credits

**MAJOR FIELD ELECTIVES - Select 14 credits**

BUL	2241	Business Law I.....	3 credits
MAN	2300	Human Resource Management.....	3 credits
MKA	2323	Mid-Management Seminar & Supervised Exp. III.....	4 credits
MNA	1821	Electronic Commerce.....	3 credits

Maximum of two courses with CGS, MAN, MKA, MNA, HFT, or SLS prefix

Students may enhance their career success by first attaining a **Certificate in Marketing Operations (60070)** by completing 24 credits from the **Major Field Required** courses and **Major Field Electives** sections above. Attaining the A.S. Degree is then simply a

matter of completing the General Education required courses and the remaining 25 credits of Major Field Required and Elective courses.

**MEDICAL LABORATORY TECHNOLOGY - 20660**  
**76 CREDITS (SELECTIVE ADMISSION)**

Students in the Medical Lab Technology (MLT) program pursue an A.S. Degree and upon completion will be eligible to take the American Society of Clinical Pathologist Medical Laboratory Technician, and American Association of Bioanalysts Medical Technologist certification examinations. Students accepted into the MLT program receive a strong general education with a foundation in medical technology. The program consists of classroom instruction, lab practice, clinical time in a hospital lab, and culminates in a 12-week clinical practicum at a local hospital.

**GENERAL EDUCATION** – \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

\*Humanities/Fine Arts

ENC 1101 ..... 3 credits

\*Natural Science/Mathematics

Any 8 credits of Biological Science with lab: BSC 1421 and BSC 1421L;  
 BSC 2426 and BSC 2426L; BSC 2010 and BSC 2010L; BSC 2011 and BSC  
 2011L; BSC 2093 and BSC 2093L; BSC 2094 and BSC 2094L; MCB 2010  
 and MCB 2010L

Any 8 credits of Chemistry: CHM 1020, CHM 1032,  
 CHM 1045 and CHM 1045L, CHM 1046 and CHM 1046L.....16 credits

\*Social/Behavioral Science

PSY 2012 or SYG 2000 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 54 credits**

*MLT	1000C	Introduction to Biomedical Technology.....	3 credits
MLT	1040C	Introduction to Specimen Processing.....	2 credits
MLT	1230	Urinalysis & Body Fluids.....	2 credits
MLT	1230L	Urinalysis & Body Fluids Laboratory.....	1 credit
MLT	1362	Hematology & Coagulation.....	4 credits
MLT	1362L	Hematology & Coagulation Lab.....	1 credit
MLT	1440C	Parasitology & Mycology.....	2 credits
MLT	1500C	Immunology & Serology.....	4 credits
MLT	1525	Immunohematology (Blood Bank).....	4 credits
MLT	1525L	Immunohematology Lab.....	1 credit
MLT	2033	Medical Lab Career Orientation.....	1 credit
MLT	1199	Introduction to Molecular Diagnostics.....	1 credit
MLT	2400	Medical Microbiology.....	4 credits
MLT	2400L	Medical Microbiology Lab.....	1 credit
MLT	2625	Clinical Chemistry.....	5 credits
MLT	2625L	Clinical Chemistry Lab.....	1 credit
MLT	2807L	Immunohematology Clinical Practicum.....	3 credits
MLT	2809L	Hematology Clinical Practicum.....	3 credits
MLT	2810L	Clinical Chemistry Practicum.....	3 credits

MLT	2811L	Microbiology Clinical Practicum.....	3 credits
MLT	2931	MLT Review for the State Exam.....	2 credits
*MAT	1033	Intermediate Algebra.....	3 credits

All core curriculum and natural science courses require a grade of "C" or higher.

**NURSING ASSOCIATE DEGREE – R.N.  
20670 - 72 CREDITS (SELECTIVE ADMISSION)**

Students accepted into the A.S. Degree Nursing program receive a solid general education as well as a strong foundation in nursing. Students are advised to take as many of the required General Education courses as possible before entering the program. Upon completion of the program, nursing students will be granted an A.S. Degree and will be eligible to apply for National Council Licensure Examinations for Registered Nurses (NCLEX-RN). An advanced placement option is available for qualified Licensed Practical Nurses, Paramedics, and Registered Respiratory Therapists.

**GENERAL EDUCATION** – \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

\*Humanities/Fine Arts

ENC 1101 and ENC 1102 or ENC 1107 .....	6 credits
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\*Natural Science/Mathematics

BSC 2093 and BSC 2093L, BSC 2094 and BSC 2094L, MCB 2010 and MCB 2010L.....	12 credits
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\*Social/Behavioral Science

PSY 2012, SYG 2000 .....	6 credits
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**MAJOR FIELD REQUIRED COURSES - 48 credits**

NUR 1020C	Nursing Fundamentals.....	8 credits
***NUR1006C	Transition to Professional Nursing .....	9 credits
or		
NUR 2264C	Adult Nursing GI & Respiratory.....	4 credits
and		
NUR 2217C	Adult Nursing GU & Endocrine.....	5 credits
NUR 2310C	Pediatric Nursing with Lab.....	5 credits
or		
***NUR1304	Transition Pediatrics.....	4 credits
and		
***NUR1304L	Transition Lab Pediatrics .....	1 credit
NUR 2420C	Maternity Nursing with Lab.....	4 credits
or		
***NUR1404	Transition Maternity .....	3 credits
and		
***NUR1404L	Transition Maternity Lab .....	1 credit
NUR 2242	Advanced Adult Nursing.....	5 credits
NUR 2520C	Psychiatric Mental Health Nursing with Lab.....	5 credits
NUR 1142	Selected Topics in Medication Administration .....	1 credit
NUR 2811L	Nursing Practicum.....	5 credits
**DEP 2004	Human Development .....	3 credits
**DIE 2201	Nutrition & Diet Therapy .....	3 credits

Upon acceptance, a complete health screen, drug screen and Florida Department of Law Enforcement check are required. All core curriculum (NUR prefix) and English, and natural science courses require a grade of "C" or higher. Anatomy and Physiology I and corequisite lab must be completed prior to NUR 1020C. Anatomy and Physiology II and corequisite lab must be completed by the end of the first semester, first year. Microbiology and corequisite lab must be completed by the end of the second semester, first year.

\*General Education classes may be taken prior to acceptance into the program or they must be completed while enrolled in the program. All nursing and General Education courses must be completed prior to the beginning of Nursing Practicum (NUR 2811L).

\*\*These classes may be taken prior to acceptance into the program. DEP 2004 must be completed prior to the beginning of Pediatric Nursing (NUR 2310C). DIE 2201 must be completed prior to the beginning of Maternity Nursing (NUR 2420C).

\*\*\*These courses are selective admission only. Students are required to obtain permission from the Nursing Department to register.

### ADVANCED TECHNICAL CERTIFICATES

The State of Florida has established the Advanced Technical Certificate program. This program of instruction consists of college level courses which may be awarded to students who have already received an Associate in Science Degree and are seeking an advanced specialized planned program of study to supplement their A. S. Degree.

#### PERIOPERATIVE NURSING 40080 - 9 CREDITS

These courses in the Advanced Technical Certificate option provide the registered nurse with current information regarding the role of the perioperative nurse. Clinical experiences utilizing updated equipment and medications in the perioperative setting are included. A minimum of two years working as an R.N. is recommended.

#### MAJOR FIELD REQUIRED COURSES - 9 credits

NUR	2093	Perioperative Nursing.....	6 credits
NUR	2093L	Perioperative Nursing Practicum.....	3 credits

#### PARALEGAL STUDIES/LEGAL ASSISTING 20640 - 64 CREDITS

This program is designed for students seeking a career in a law-related field as a paraprofessional and for legal secretaries presently employed who wish to advance in their work. Upon successful completion, a student will be prepared to work under the supervision of an attorney and perform many vital functions as a legal assistant. A legal assistant may not practice law, give advice, or collect fees. Legal assistants work in law firms, legal departments of major corporations, governmental agencies (local, state, and federal), real estate departments of large businesses, title companies, trust departments of banks, brokerage houses, and insurance companies. Students are eligible to take the National Association of Legal Assistants certification exam upon completion.

#### GENERAL EDUCATION

Humanities/Fine Arts	
ENC 1101 and ENC 1102 or ENC 1107 .....	6 credits
Natural Science/Mathematics	
see page 134.....	3 credits

Social/Behavioral Science see page 134.....	3 credits
Humanities/Fine Arts, Natural Science/Mathematics or Social/Behavioral Science see pages 133 - 134.....	3 credits

**MAJOR FIELD REQUIRED COURSES - 24 credits**

PLA 1104	Legal Research & Writing I.....	3 credits
PLA 1610	Real Estate & Property Law .....	3 credits
PLA 2003	Introduction to Paralegal Studies.....	3 credits
PLA 2058	Survey of Law.....	3 credits
PLA 2114	Legal Research & Writing II.....	3 credits
PLA 2203	Civil Litigation I .....	3 credits
PLA 2223	Civil Litigation II .....	3 credits
PLA 2433	Corporate & Business Law.....	3 credits

**MAJOR FIELD ELECTIVES - Select 25 credits**

OST 1713 or	Microsoft Word .....	3 credits
OST 1766	WordPerfect I.....	3 credits
ACG 2001	Financial Accounting I.....	3 credits
CJL 2062	Constitutional Law.....	3 credits
CJL 2100	Criminal Law .....	3 credits
CGS 1130	Electronic Access to Legal Resources.....	1 credit
CGS 1060	College Computing .....	3 credits
PLA 1763	Law Office Management .....	3 credits
PLA 1931	Special Topics in Law .....	1 credit
PLA 2273	Torts .....	3 credits
PLA 2423	Contracts.....	3 credits
PLA 2460	Bankruptcy Law .....	3 credits
PLA 2483	Administrative Law .....	3 credits
PLA 2600	Estate Planning & Probate Administration .....	3 credits
PLA 2661	Federal Estate & Gift Tax .....	3 credits
PLA 2800	Family Law .....	3 credits
PLA 2949	Internship in Paralegal Studies .....	4 credits

**PHYSICAL THERAPIST ASSISTANT - 20690**

**74 CREDITS (SELECTIVE ADMISSION)**

The Physical Therapist Assistant (PTA) program is an integrated curriculum of class lecture, lab, and clinical education in a variety of health care settings. Completion of the A.S. Degree program prepares the PTA to perform physical therapy procedures and related tasks under the supervision of a Physical Therapist. Graduates are eligible to take the National Physical Therapist Assistant Examination and upon satisfactory achievement, become licensed Physical Therapist Assistants. The Physical Therapist Assistant program at IRSC is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

**GENERAL EDUCATION** – \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

\*Humanities/Fine Arts

ENC 1101 ..... 3 credits

\*\*Natural Science/Mathematics

PHY 1020, BSC 2093,  
BSC 2093L, BSC 2094, BSC 2094L ..... 11 credits

Social/Behavioral Sciences

PSY 2012 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 57 credits**

PHT 1351	General Pharmacology-PTA.....	1 credit
*HSC 2531	Medical Terminology I .....	3 credits
*DIE 2201	Nutrition & Diet Therapy .....	3 credits
*CGS 1060	College Computing .....	3 credits
*MAT 1033	Intermediate Algebra.....	3 credits
PHT 1004	Introduction to Physical Therapy .....	2 credits
PHT 1004L	Introduction to Physical Therapy Lab .....	2 credits
PHT 1121	Functional Anatomy & Kinesiology .....	3 credits
PHT 1121L	Functional Anatomy & Kinesiology Lab.....	2 credits
PHT 1211	Disabilities & Therapeutic Procedures I.....	2 credits
PHT 1211L	Disabilities & Therapeutic Procedures I Lab .....	2 credits
PHT 1300	Survey of Pathological Deficits .....	3 credits
PHT 1801	Clinical Practice I .....	2 credits
PHT 2162	Survey of Neurological Deficits.....	3 credits
PHT 2224	Disabilities & Therapeutic Procedures II.....	2 credits
PHT 2224L	Disabilities & Therapeutic Procedures II Lab .....	1 credit
PHT 2703	Rehabilitative Procedures.....	2 credits
PHT 2703L	Rehabilitative Procedures Lab .....	1 credit
PHT 2810	Clinical Practice II .....	8 credits
PHT 2820	Clinical Practice III .....	7 credits
PHT 2931	Transition Seminar .....	2 credits

All core curriculum and natural science courses require a grade of “C” or higher. Anatomy and Physiology I and corequisite lab must be completed by the end of the Fall semester, first year. Anatomy and Physiology II and corequisite lab must be completed by the end of the Spring semester, first year.

\*\*Students are encouraged to complete natural science and mathematics classes prior to acceptance into the program.

**ADVANCED TECHNICAL CERTIFICATE IN MANUAL TECHNIQUES  
FOR THE PTA - 40050 - 10 CREDITS**

The Advanced Technical Certificate (ATC) in Manual Techniques is a 10-credit certificate program for licensed Physical Therapist Assistants. The program is dedicated to advancing the science and art of soft tissue mobilization in an effort to enhance the quality of therapeutic treatment, promoting patient wellness.

Successful graduates of this curriculum are eligible to take the national certification examination through the National Certification Board for Therapeutic Massage and Bodywork, and upon satisfactory achievement, become licensed Massage Therapists (pending approval process).

The Massage Therapist is a highly trained healthcare provider who performs a variety of manual techniques designed to promote stress relief and relaxation, relieve pain and swelling to various structures, prevent deformity and promote functional activity in a person who has a specific health problem.

**MAJOR FIELD REQUIRED COURSES - 10 credits**

PHT	2203	Manual Techniques I.....	3 credits
PHT	2203L	Clinical Practicum in Manual Techniques I.....	2 credits
PHT	2204	Manual Techniques II.....	3 credits
PHT	2204L	Clinical Practicum in Manual Techniques II.....	2 credits

**RADIOGRAPHY - 20700**

**77 CREDITS (SELECTIVE ADMISSION)**

**NUCLEAR MEDICINE TECHNOLOGY SPECIALIST CERTIFICATE - 60210**

Graduates of this program are eligible to sit for the national certifying examination given by the American Registry of Radiologic Technologists (A.R.R.T.). The program is accredited by the Joint Review Committee on Education in Radiologic Technology. The curriculum includes General Education requirements as well as in-depth instruction in radiographic procedures, pathology, patient care, and radiographic physics. A competency-based clinical education component is conducted at six local hospitals. Program graduates may choose to continue their education at the university level, or to specialize in other imaging modalities such as: Ultrasound, Nuclear Medicine, Radiation Therapy, or Magnetic Resonance Imaging.

**GENERAL EDUCATION** – \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

\*Humanities/Fine Arts

- ENC 1101, and select one from the following:
- AML 2010, AML 2020, ARH 2050, ARH 2051, ENC 1102, ENC 1107,
- ENL 2012, ENL 2022, HUM 1233, HUM 1533, HUM 1541,
- HUM 2512, IDS 1110, IDS 1955, LIT 2110, LIT 2120, MUL 2010,
- PHI 1002, PHI 1010, PHI 1103, PHI 1635, PHI 1801, PHI 2630,
- REL 1300, SPC 1608 or THE 1000..... 6 credits

\*Natural Science/Mathematics

- MAC 1105, BSC 2093, BSC 2093L, BSC 2094, BSC 2094L..... 11 credits

\*Social/Behavioral Science

- PSY 2012 ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 57 credits**

RTE	1000	Introduction to Radiography.....	3 credits
RTE	1418	Radiographic Exposure I.....	3 credits
RTE	1418L	Radiographic Exposure I Lab.....	1 credit
RTE	1457	Radiographic Exposure II.....	2 credits
RTE	1457L	Radiographic Exposure II Lab.....	1 credit
RTE	1503	Radiographic Procedures I.....	3 credits
RTE	1513	Radiographic Procedures II.....	3 credits
RTE	1513L	Radiographic Procedures II Lab.....	1 credit

RTE	1523	Radiographic Procedures III .....	3 credits
RTE	1523L	Radiographic Procedures III Lab .....	1 credit
RTE	1804	Radiographic Clinical Education I.....	1 credit
RTE	1814	Radiographic Clinical Education II.....	1 credit
RTE	1824	Radiographic Clinical Education III.....	3 credits
RTE	1834	Radiographic Clinical Education IV .....	3 credits
RTE	2844	Radiographic Clinical Education V .....	1 credit
RTE	2061	Radiographic Seminar .....	2 credits
RTE	2385	Radiation Safety & Protection .....	2 credits
RTE	2533	Radiographic Procedures IV .....	2 credits
RTE	2533L	Radiographic Procedures IV Lab .....	1 credit
RTE	2553	Radiographic Procedures V .....	2 credits
RTE	2553L	Radiographic Procedures V Lab .....	1 credit
RTE	2563	Advanced Medical Imaging.....	2 credits
RTE	2580	Introduction to Digital Imaging .....	2 credits
RTE	2613	Radiologic Physics.....	3 credits
RTE	2854	Radiographic Clinical Education VI .....	1 credit
RTE	2864	Radiographic Clinical Education VII .....	3 credits
RTE	2874	Radiographic Clinical Education VIII .....	3 credits
CGS	1060	College Computing.....	3 credits

All core curriculum English, math, and natural science courses require a grade of “C” or higher. Anatomy and Physiology I and corequisite lab must be completed by the end of the Fall semester, first year. Anatomy and Physiology II and corequisite lab must be completed by the end of the Spring semester, first year.

### **NUCLEAR MEDICINE TECHNOLOGY SPECIALIST - 60210**

#### **48 CREDITS (SELECTIVE ADMISSION)**

This advanced training program prepares individuals to become certified as Nuclear Medicine Technology Specialists. Program participants must have already earned an A.S. or higher degree in Radiography, Respiratory Therapy, or Nursing.

#### **MAJOR FIELD REQUIRED COURSES – 48 credits**

MAC	1105	College Algebra.....	3 credits
BSC	2093	Anatomy & Physiology I .....	3 credits
BSC	2093L	Anatomy & Physiology I Lab .....	1 credit
BSC	2094	Anatomy & Physiology II.....	3 credits
BSC	2094L	Anatomy & Physiology II Lab.....	1 credit
CHM	1020	Introduction to Chemistry .....	3 credits
NMT	1002	Introduction to Nuclear Medicine.....	3 credits
NMT	1130	Nuclear Medicine Radiopharmacy.....	3 credits
NMT	1312	Nuclear Medicine Radiation Safety.....	3 credits
NMT	1430	Nuclear Medicine Radiobiology & Physics.....	3 credits
NMT	1534	Nuclear Medicine Instrumentation .....	3 credits
NMT	1713	Nuclear Medicine Methodology I.....	4 credits
NMT	1723	Nuclear Medicine Methodology II.....	4 credits
NMT	1804	Nuclear Medicine Clinical Education I .....	3 credits
NMT	1814	Nuclear Medicine Clinical Education II .....	3 credits

NMT	1824	Nuclear Medicine Clinical Education III .....	2 credits
NMT	1932	Nuclear Medicine Seminar .....	3 credits

**RESPIRATORY CARE - 20710**  
**76 CREDITS (SELECTIVE ADMISSION)**

The A.S. Degree program in Respiratory Care trains students in the use of medical gases, medication, aerosols, chest physiotherapy, airway management, mechanical ventilation, and cardiopulmonary resuscitation. The program includes classroom lecture, lab experiences, and clinical experience at local hospitals. The Respiratory Care program at IRSC is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), in collaboration with the Committee on Accreditation for Respiratory Care (CoARC).

**GENERAL EDUCATION** – \*may be taken prior to acceptance into the program or must be completed while enrolled in the program.

\*Humanities/Fine Arts

ENC 1101 .....	3 credits
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\*Natural Science/Mathematics

BSC 2010, PHY 1020, BSC 2093, BSC 2093L, BSC 2094, BSC 2094L.....	14 credits
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\*Social/Behavioral Science

PSY 2012 .....	3 credits
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**MAJOR FIELD REQUIRED COURSES - 56 credits**

MAT	1033	Intermediate Algebra.....	3 credits
RET	1024	Introduction to Respiratory Care .....	3 credits
RET	1007	Cardiopulmonary Pharmacology .....	2 credits
RET	1274	Respiratory Therapy Theory I.....	3 credits
RET	1485	Cardiopulmonary Anatomy & Physiology .....	3 credits
RET	2275	Respiratory Therapy Theory II with Lab.....	3 credits
RET	2503	Cardiopulmonary Diseases.....	2 credits
RET	2832	Respiratory Therapy Clinic I .....	5 credits
RET	2442	Respiratory Therapy Theory III.....	3 credits
RET	2833	Respiratory Therapy Clinic II .....	2 credits
RET	2414C	Pulmonary Function Studies with Lab .....	3 credits
RET	2264	Mechanical Ventilation with Lab .....	3 credits
RET	2834	Respiratory Therapy Clinic III .....	5 credits
RET	2280	Critical Respiratory Care .....	3 credits
RET	2835	Respiratory Therapy Clinic IV.....	7 credits
RET	2714	Pediatric/Neonatal Respiratory Care .....	3 credits
RET	2934	Professional Development in Respiratory Care.....	2 credits
RET	2241	Introduction to ACLS for Respiratory Care .....	1 credit

All core curriculum and natural science courses require a grade of "C" or higher. Anatomy and Physiology I and corequisite lab must be completed by the end of the Fall semester, first year. MAT 1033, Anatomy and Physiology II and corequisite lab must be completed by the end of the Spring semester, first year.

**ADVANCED RESPIRATORY CARE PRACTICE - 40090 - 9 CREDITS**

This program of study assists the student in preparing for the application of advanced respiratory care procedures. Program participants must have already earned an A.S. or higher degree in Respiratory Therapy.

**MAJOR FIELD REQUIRED COURSE – 3 credits**

RET 2405 Diagnostic Procedures in Respiratory Care..... 3 credits

**MAJOR FIELD ELECTIVES – Select 6 credits**

RET 2008 Gen. Pharmacology - Respiratory Care Practitioners..... 2 credits

RET 2225 Conscious Sedation ..... 2 credits

RET 2418 Diagnostic Cardiopulmonary Pathophysiology ..... 3 credits

RET 2490 I.V. Therapy ..... 3 credits

**RESTAURANT MANAGEMENT**

**A0090 - 64 CREDITS**

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

A strong foundation in the foods and nutrition field coupled with a broad base of general academics is provided by this program. This course of study offers students the opportunity to gain field experience and practical knowledge through “hands-on” activities. With this major, one can select many productive employment possibilities from a variety of career fields such as the food processing industry, institutional food service management, and restaurant management. In addition, the **Culinary Institute of the Treasure Coast** curriculum is found within this degree.

**GENERAL EDUCATION**

Humanities/Fine Arts

ENC 1101..... 3 credits

Natural Science/Mathematics

MAT 1033..... 3 credits

Social/Behavioral Science

see page 134..... 3 credits

Humanities/Fine Arts or Natural Science/Mathematics

or Social/Behavioral Science

see pages 133 - 134..... 6 credits

**MAJOR FIELD REQUIRED COURSES - 21 credits**

FOS 2201 Sanitation & Safety ..... 3 credits

FSS 2221C Food Preparation I..... 3 credits

FSS 2222C Food Preparation II..... 3 credits

FSS 2063C Quantity Baking..... 3 credits

FSS 2300 Food Service Supervision & Management ..... 3 credits

FSS 2401 Use & Care of Kitchen Equipment ..... 3 credits

HUN 1201 Nutrition ..... 3 credits

**SUGGESTED SPECIALIZATION ELECTIVES – Select 28 credits**

**COMMERCIAL CULINARY ARTS**

\*FSS 2206 Quantity Food Production ..... 4 credits

*FSS	2248C	Pantry & Gard-Manger I .....	4 credits
*FSS	2500	Food/Beverage Cost Control/Purchasing.....	4 credits

**INSTITUTIONAL FOOD SERVICE**

FSS	2303	Food Service Practicum I .....	4 credits
FSS	2304	Food Service Practicum II .....	4 credits
FSS	2305	Food Service Practicum III .....	4 credits
FSS	2306	Food Service Practicum IV .....	4 credits

**MAJOR FIELD ELECTIVES**

APA	1111	Introduction to Accounting.....	3 credits
CGS	1000	Introduction to Computer Usage .....	3 credits
*CGS	1100	Introduction to Computer Applications-Business.....	3 credits
DIE	2201	Nutrition & Diet Therapy .....	3 credits
FSS	1930	Creative Culinary Cooking.....	1/2 - 3 credits
*FSS	2263	Food Merchandising & Service .....	3 credits
*FSS	2284C	Food Services Special.....	3 credits
*GEB	1011	Introduction to Business.....	3 credits
GEB	1931	Introduction to Business Technology .....	3 credits
HUN	1410	Basic Childhood Nutrition .....	3 credits
MAN	2021	Principles of Management.....	3 credits
MAR	2011	Principles of Marketing.....	3 credits
*MKA	1303	Mid-Mgmt Seminar & Supervised Exp I.....	4 credits
MNA	2100	Interpersonal Relations in Business .....	3 credits
MNA	2345	Supervision.....	3 credits
SLS	1421	Personal & Career Development.....	3 credits

\*In addition to General Education and Major Field Required courses, suggested specialized electives with asterisks are required for the **Culinary Institute of the Treasure Coast**.

**THEATRE AND ENTERTAINMENT TECHNOLOGY  
20720 - 64 CREDITS**

This degree prepares the student for a career in technical theatre and/or technical support for related live entertainment. The curriculum offers the conceptual and technological skills and experience required for jobs such as stage technician, sound technician, lighting technician, costume technician, stage manager, scenic carpenter, stage crew, and theatre maintenance technician. This degree also provides the entry-level skills and experience for technical support positions in the film/television/theme park industries.

**GENERAL EDUCATION**

Humanities/Fine Arts			
	ENC 1101 and THE 1000.....		6 credits
Natural Science/Mathematics			
	see page 134.....		3 credits
Social/Behavioral Science			
	see page 134.....		3 credits

Humanities/Fine Arts or Natural Science/Mathematics  
or Social/Behavioral Science

ARH 2050, HUM 1533, HUM 2512 recommended ..... 3 credits

**MAJOR FIELD REQUIRED COURSES - 42 credits**

CGS	1100	Intro to Computer Applications for Business.....	3 credits
or			
CGS	1060	College Computing.....	3 credits
BCN	1250	Architectural Drafting Principles.....	3 credits
MNA	2345	Supervision.....	3 credits
TPA	1200	Beginning Stagecraft.....	3 credits
TPA	1208	Drafting for the Stage.....	3 credits
TPA	1211	Stagecraft II.....	3 credits
TPA	1230	Theatre Costuming I.....	3 credits
TPA	1248	Stage Makeup.....	3 credits
TPA	2220	Introduction to Stage Lighting.....	3 credits
TPA	2221	Advanced Stage Lighting.....	3 credits
TPA	2252	Introduction to Audio Visual Technology.....	3 credits
TPA	2260	Sound for the Stage.....	3 credits
TPA	2282	Theatre Equipment Maintenance.....	2 credits
TPA	2290	Technical Theatre.....	4 semesters x 1 credit

**MAJOR FIELD ELECTIVES - 7 credits**

ART	1201C	Color & Design I.....	3 credits
DAA	1500	Jazz Dance.....	2 credits
EET	1215C	Introduction to Electronics.....	3 credits
ETD	1320	Introduction to AutoCAD.....	3 credits
ETD	2377	3D Digital Animation I.....	3 credits
FIL	1030	History of Film.....	3 credits
TPA	1272	Beginning Rigging.....	1 credit
TPP	1110	Acting.....	3 credits
TPP	1190	Rehearsal & Performance Lab I.....	1 credit