



Catalog Supplement
2024-2025 Catalog, Volume 17
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Locations and Hours of Operation

PORT CHARLOTTE BRANCH CAMPUS

The campus contains classrooms, electrical labs, HVAC labs, veterinary assisting labs, surgical technician labs, medical assisting labs, and computer labs. The campus also has a dedicated Learning Resource Center, and faculty and administration offices. The average student to faculty ratio for didactic courses is 24:1. The average student to faculty ratio for lab courses is 18:1. The average student to faculty ratio for clinical courses is 12:1. The maximum student to faculty ratio for lab classes is 10:1 for the Surgical Technician degree program. STC Port Charlotte is located at 950 Tamiami Trail, Suite 109, Port Charlotte, Florida 33953. The telephone number for the campus is (941) 391-8888.

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Programs of Study

HVAC
Diploma
Auburndale, Brandon, Orlando, Port Charlotte and Sanford
48 Quarter Credit Hours/40 Weeks

The diploma program in HVAC is designed to prepare students for entry-level employment as HVAC technicians by providing students with a foundation of knowledge and technically oriented experiences in the application of relevant technology systems. The HVAC program curriculum includes learning experiences intended to prepare a successful graduate to install and service residential and light commercial air conditioning, heating and refrigeration systems. (600 clock hours)

Educational Objectives: Install, service, or repair heating, air conditioning and refrigeration systems in residences or commercial establishments.



Course Number	Required Courses	Quarter Credits
CON101	Introduction to Building Construction	6
EIT115	Basic Electricity and Electronics	4.5
EIT250	Motors and Controls	4.5
HAC150	Air Conditioning and Refrigeration Theory	4.5
HAC170	Air Conditioning	4.5
HAC200	Applied Heating	4.5
HAC230	HVAC System Design	4.5
HAC240	Commercial Refrigeration	4.5
HAC250	Commercial Air Conditioning	4.5
SLS110	Career Preparation	6
REQUIRED FOR GRADUATION		48

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Locations and Hours of Operation

TAMPA BRANCH CAMPUS

The campus includes five computer classrooms, a technology lab, ten lecture classrooms, medical labs, electrical labs, surgical technician labs, and welding lab. The campus also has a dedicated Learning Resource Center. The average student to faculty ratio for didactic courses is 24:1. The average student to faculty ratio for lab courses is 18:1. The average student to faculty ratio for clinical courses is 12:1. The maximum student to faculty ratio for lab classes is 10:1 for the Surgical Technician degree program. STC Tampa is located at 3910 Riga Boulevard, Tampa, Florida 33619. The telephone number for the campus is (813) 630-4401.

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Programs of Study

WELDING TECHNOLOGY

Associate of Applied Science

Auburndale, Orlando, Sanford and Tampa

90 Quarter Credit Hours/72 Weeks

The Welding Technology program is designed to fuse the technological, professional and technical skills necessary to ensure that graduates are competent welders and business professionals. This program offers students relevant general education, business and technology courses and a complete series of skills development in welding. Students will develop skills in Fillet (F) and Groove (G) Welding, and Metal Arc Shield Welding. Students will also learn MIG/TIG components

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of more advanced welding techniques for pipe welding. Students may be eligible to sit for certifications in basic and intermediate welding skills. Graduates from this program may seek entry level employment as a welder in a welding shop, ship yard, automotive repair facility, construction and other work settings.

Educational Objectives: Use hand-welding or flame-cutting equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Course Number	Required Courses	Quarter Credits
BUS103	Introduction to Business	6
CON101	Introduction to Building Construction	6
SLS110	Career Preparation	6
WLD100	Introduction to Welding	4.5
WLD102	Fillet Welding	4.5
WLD103	Introduction to Fabrication	4.5
WLD111	Structural Welding	4.5
WLD120	SMAW Groove Welding	4.5
WLD141	Basic Pipe Welding	4.5
WLD145	Introduction to TIG Welding	4.5
WLD251	Pipe Welding I	4.5
WLD261	Pipe Welding II	4.5
WLD280	Non-Ferrous Welding I	4.5
WLD284	Non-Ferrous Welding II	4.5
Total Core Credits		67.5
General Education Courses		
COC100	Computer Concepts	4.5
COM101	Communications	6
ENG101	English Composition	6
MAT105	College Mathematics	6
Total General Education Credits		22.5
REQUIRED FOR GRADUATION		90



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2024-2025 ACADEMIC CALENDAR MODULAR TERMS*

Term ID	Class Start Date	Class End Date	Holidays / Breaks
		WINTER 2024	
Winter A	January 8, 2024	February 1, 2024	January 15, 2024 • MLK Jr. Day, No Classes
Winter B	February 5, 2024	February 29, 2024	
Winter C	March 4, 2024	March 28, 2024	March 31-April 7, 2024 • Spring Break, No Classes
Term ID	Class Start Date	Class End Date	Holidays / Breaks
		FALL 2025	
Fall A	September 29, 2025	October 23, 2025	
Fall B	October 27, 2025	November 20, 2025	
Fall C	November 24, 2025	December 18, 2025	November 27-28, 2025 • Thanksgiving, College Closed December 19, 2025-January 4, 2026 • Winter Break, No Classes December 24, 2025 • Christmas Observed, College Closed

*All dates are subject to change without notice.

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Catalog Pages 62-63 Course Descriptions

SON100 Foundations of Sonography

4.0 credit hours

This course provides an introduction to the field of Diagnostic Medical Sonography and the role of the sonographer in the healthcare industry. In this course students are provided with an overview of related medical terminology, an understanding of medical law and ethics, and general patient care practices, infection control, emergency procedures, blood-borne pathogens, HIV-AIDS, HIPAA, first aid, and CPR. Students also learn ergonomically correct scanning techniques and develop an understanding of the importance of personal fitness, support tools and devices, equipment adjustments, and patient positioning. Prerequisite(s): BSC111.

SON105 Gross Anatomy

4.0 credit hours

This course introduces students to the necessary protocols and procedures of the ultrasound laboratory, including scanning criteria and documentation of images, in preparation for physician review. Presents knowledge of relational anatomy physiology, pathophysiology sonographic appearance, and the associated vasculature structures. Prerequisite(s): SON100 and SON102.

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**SON125 Principles of Ultrasound Instrumentation and Acoustic Physics****6.0 credit hours**

In depth presentation of concepts related to acoustic physics, Doppler and ultrasound principles and the operation and ultrasound instrumentation. Interaction of ultrasound and tissue and quality assurance methods will be included. Prerequisite(s): PHY202 and MAC110.

SON210 Transabdominopelvic Sonography**4.0 credit hours**

Presents the sonographic and Doppler appearance, both normal and abnormal, of the organs of the abdomen and the pelvis as well as the peritoneal spaces and retroperitoneal structures. Recognition of disease processes and correlation of findings to patient history and physical, differential diagnosis and laboratory findings will be emphasized. Prerequisite(s): SON212 and SON215.

SON212 Gynecologic Sonography**4.0 credit hours**

Presents the sonographic and Doppler appearance of normal and abnormal structures of the non-gravid female pelvis with emphasis on the correlation of abnormal findings to the patient's history, physical, differential diagnosis and laboratory findings. Prerequisite(s): SON100 and SON125.

SON218 Embryonic and Fetal Sonography**4.0 credit hours**

Discussion of the sonographic appearance, both normal and abnormal, of fetal and embryonic anatomic structures throughout gestation. Correlation of abnormal findings with maternal history, physical and laboratory findings will be emphasized. Prerequisite(s): SON212 and SON215.

SON272 Sonography Clinical I**3.0 credit hours**

In this course, students will be introduced to the appropriate use of oral and written communications and providing appropriate patient care while following standard procedures for infection control in the health care environment. Students will be introduced in the use of various types of ultrasound equipment and will receive guidance in producing quality sonographic images and the parameters used to evaluate the images. Student will demonstrate knowledge of gross anatomy, interventional and invasive procedures through interaction with ultrasound technology while practicing ergonomically correct scanning techniques. Prerequisite(s): SON105, SON215 and SON218.

SON285 Sonography Externship I**13.0 credit hours**

Provides opportunity to apply theory and training acquired in the classroom and laboratory settings to the performance of sonographic examinations in the clinical setting. Students will perform sonographic examinations of the abdomen, superficial structures, the gravid and non-gravid pelvis and the non-cardiac chest using both transabdominal and endocavitary transducers and Doppler display modes. Prerequisite(s): Completion of all core courses.

Effective November 12, 2024**Catalog Pages 56-62****Course Descriptions**

This section provides descriptions of courses offered at the College. The College reserves the right to revise course descriptions, course offerings, and program curricula at any time. Courses marked with an "O" designation are approved for online delivery. Courses marked with an "H" designation are approved for hybrid delivery, with the lecture portion delivered online.

CON101 Introduction to Building Construction "H" – Orlando only**6.0 credit hours**

This course provides a study of Energy Efficient Building Construction and OSHA regulations. This course also includes an introduction to blueprint reading and the proper use of architectural and engineering symbols, relationship of views, and

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construction measurements. The student will learn basic construction mathematics and principles.

EIT115 Basic Electricity and Electronics “H” – Orlando only

4.5 credit hours

Electrical principles and applications are introduced. Topics include electrical parameters and units, direct and alternating current, series and parallel circuits, resistance, capacitance, inductance, magnetism, and equivalent circuits. Lab included. Prerequisite(s): None.

EIT250 Motors and Controls “H” – Orlando only

4.5 credit hours

This course is intended to assist the student to learn how AC motors operate and how to install them. The course will give the student an understanding of how motor controls are designed and installed to provide control schemes. Efforts will be made to keep the course practical, yet to provide the theory about why a motor and an associated control system works. Lab included. Prerequisite(s): EIT115 or 125.

HAC150 Air Conditioning and Refrigeration Theory “H” – Orlando only

4.5 credit hours

This course introduces the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, refrigerant safety, refrigerants, refrigerant cylinders, and refrigeration components. Lab included.

HAC170 Air Conditioning “H” – Orlando only

4.5 credit hours

This course applies the theories introduced in earlier courses and expands on components, applications and installation of mechanical refrigeration and air conditioning systems. ARI standards are introduced and used in the troubleshooting and repair of air conditioning systems. EPA regulations are studied and used in recovery, charging and evacuation procedures for Type I, Type II, and Type III systems. Coursework includes hands on applications in recovery, evacuation, and charging techniques. Lab included.

HAC200 Applied Heating “H” – Orlando only

4.5 credit hours

Heat pumps will be introduced and a study of the procedures and principles used in serving heating systems to include gas, electric, and hydronic systems. Lab included. Prerequisite(s): HAC150.

HAC230 HVAC System Design “H” – Orlando only

4.5 credit hours

This course provides a study of the properties of air and results of cooling, heating, humidifying, or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system. Heat load calculations will be studied and applied in the design of refrigeration systems. Lab included. Prerequisite(s): HAC170.

HAC240 Commercial Refrigeration “H” – Orlando only

4.5 credit hours

This course introduces practical application in the maintenance of commercial refrigeration: high, medium, and low temperature applications and ice machines. Lab included. Prerequisite(s): EIT115 and HAC150.

HAC250 Commercial Air Conditioning “H” – Orlando only

4.5 credit hours

This course encompasses the study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less. Lab included. Prerequisite(s): HAC150 and EIT115.

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EIT120 Residential Electronic Systems “H” – Orlando only

4.5 credit hours

This course provides instruction in home automation technology, including home security, audio/video, computer networks,

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structured wiring, controls (lighting, HVAC, water), cable/satellite, baseband video, telecommunications and broadband. The student will learn to plan, install, test, troubleshoot and trim-out the various home automation systems. Lab included. Prerequisite(s): None.

EIT125 Alternating Current and Passive Devices “H” – Orlando only **4.5 credit hours**

This course is designed to give students a solid knowledge of alternating current. It introduces the theory and application of varying sine wave voltages and current. Topics include: AC wave generation factors such as peak, peak to peak, average, and RMS values of AC voltage and current; frequency and phase relationship in resistive, RL, RC, and RLC circuits; and impedance, admittance, and conductance power factors calculated from given and/or measured data. Lab included. Prerequisite(s): EIT115.

EIT210 The National Electric Code “H” – Orlando only **6.0 credit hours**

This course will introduce students to the National Electric Code (NEC). It provides an overview of the key chapters, code sections, calculations, definitions and values tables necessary to ensure a safe and professional installation. Instruction related to the NEC is provided for one-family dwellings, multi-family dwellings, commercial locations, and special occupancies. Prerequisite(s): None.

EIT218 Principles and Applied Practices of Residential Wiring “H” – Orlando only **4.5 credit hours**

This course will provide information on conductor ratings, wiring styles, grounding, and practical experience in basic residential electrical wiring. Students will be exposed to advanced practical experience in lighting branch circuits and special purpose circuits. Lab included. Prerequisite(s): EIT115.

EIT220 Advanced Residential Circuit Installation “H” – Orlando only **4.5 credit hours**

This course covers electrical installation, operation, and maintenance for residential wiring. It will focus on general knowledge, safety, tools, print reading, equipment, wiring and the National Electrical Code. Lab included. Prerequisite(s): EIT218.

EIT228 Commercial Wiring “H” – Orlando only **4.5 credit hours**

This course is an introduction to commercial wiring practices and procedures. Topics include National Electrical Code, commercial load calculations, safety, and commercial installations. Lab included. Prerequisite(s): EIT125.

EIT240 Green Technology “H” – Orlando only **4.5 credit hours**

This course provides an overview of the design and installation of energy efficient systems. Instruction is provided on the layout, wiring and equipment necessary for solar and photovoltaic systems. Testing, repairing and replacement of components related to these systems is also covered. Code adherence and safety standards are addressed.

EIT260 Electrical Estimating “H” – Orlando only **6.0 credit hours**

This course introduces students to the fundamentals of electrical estimating. Students will receive instruction in preparing a professional bid, estimating materials, labor values and bid submission. Load calculations and various methods of estimating will be discussed. Students will be exposed to basic electrical estimating software. Prerequisite(s): EIT210.