

Florida Department of Education  
Curriculum Framework

**Program Title:** Air-Conditioning, Refrigeration and Heating Technology 1  
**Program Type:** Career Preparatory  
**Career Cluster:** Architecture and Construction

**PSAV**

Program Number	C400100
CIP Number	0647020107
Grade Level	30, 31
Standard Length	750 Hours
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	SkillsUSA
SOC Codes (all applicable)	49-9021 - Heating, Air Conditioning, and Refrigeration Mechanics and Installers
CTE Program Resources	<a href="http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml">http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml</a>
Basic Skills Level	Mathematics: 10 Language: 9 Reading: 9

**Purpose**

The purpose of this program is to prepare students for employment or advanced training in the heating, air-conditioning, and refrigeration and ventilation industry. The student should obtain EPA certification prior to leaving school in order to be employed in any job that requires work with refrigerants. This program focuses on broad, transferable skills, stresses the understanding of the heating, air-conditioning, refrigeration and ventilation industry and demonstrates elements of the industry such as planning, management, finance, technical and production skills, the underlying principles of technology, and health, safety and environmental issues.

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Architecture and Construction career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Architecture and Construction career cluster.

The content includes but is not limited to designing, testing and repairing heating, ventilation, air-conditioning and cooling (HVAC) systems.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program is a planned sequence of instruction consisting of three occupational completion points.

This program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the postsecondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
A	ACR0041	Air Conditioning, Refrigeration and Heating Helper	AC HEAT ME @7 G REFRG MECH 7 G	250 Hours	49-9021
B	ACR0043	Air Conditioning, Refrigeration and Heating Mechanic Assistant		250 Hours	49-9021
C	ACR0047	Air Conditioning, Refrigeration and Heating Mechanic 1		250 Hours	49-9021

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate the importance of health, safety and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.
- 02.0 Identify, use and maintain the tools and tool accessories used in the heating, air-conditioning and refrigeration industry.
- 03.0 Demonstrate mathematics knowledge and skills.
- 04.0 Demonstrate a practical knowledge of basic electricity and of the electrical components of heating, air-conditioning and refrigeration equipment.
- 05.0 Troubleshoot heating, air-conditioning and refrigeration electrical control systems and their components.
- 06.0 Select and test electrical generation and distribution components for commercial heating and air conditioning systems.
- 07.0 Maintain, test and troubleshoot electrical motors and their components for commercial heating and air-conditioning systems.
- 08.0 Troubleshoot and wire electrical motors and their components.
- 09.0 Operate solid-state electronics as used in heating, air-conditioning and refrigeration systems.
- 10.0 Evaluate single-phase and three-phase power as used in heating, air-conditioning and refrigeration systems.
- 11.0 Explain the function of basic electronics.
- 12.0 Describe the history and concepts of heating, air-conditioning and refrigeration.
- 13.0 Explain the properties of matter and heat behavior.
- 14.0 Analyze fluids, pressures, refrigerants and related codes.
- 15.0 Evaluate heating, air-conditioning and refrigeration system components and accessories.
- 16.0 Select appropriate commercial compressors.
- 17.0 Test and adjust commercial evaporative condensers.
- 18.0 Maintain, test and troubleshoot commercial evaporators.
- 19.0 Fabricate and service the piping, tubing and fittings used in the heating, air-conditioning and refrigeration industry.
- 20.0 Identify basic principles of heating, air conditioning, refrigeration and ventilation piping sizing.
- 21.0 Utilize and operate mechanical refrigeration servicing and testing equipment.
- 22.0 Assist in the installation of a residential heating and air-conditioning system and determine start-up procedures.
- 23.0 Conduct start-up and check-out procedures for mechanical heating and air-conditioning systems.
- 24.0 Demonstrate a working knowledge of refrigerants and oils.
- 25.0 Conduct system startup and shutdown.
- 26.0 Explain the importance of employability and entrepreneurship skills.

Florida Department of Education  
Student Performance Standards

Program Title: Air-Conditioning, Refrigeration and Heating Technology 1  
PSAV Number: C400100

<b>Course Number: ACR0041</b>	
<b>Occupational Completion Point: A</b>	
<b>Air-Conditioning, Refrigeration and Heating Helper – 250 Hours – SOC Code 49-9021</b>	
01.0	Demonstrate the importance of health, safety and environmental management systems in organizations and their importance to organizational performance and regulatory compliance --The student will be able to:
01.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.
01.02	Explain the reasons for regular safety meetings and for company safety policies.
01.03	Explain the need for employee-background checks and medical examinations.
01.04	Identify and use appropriate fire extinguishers and other such safety devices.
01.05	Identify and follow emergency and rescue procedures.
01.06	Identify and use safe-handling practices as they relate to hazardous and volatile fluids, compounds and gases.
01.07	Understand and apply Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), Department of Transportation (DOT) hazardous materials safety requirements, lock-out and tag out, and electrical safety.
01.08	Select and wear proper protective clothing and equipment.
01.09	Describe the purpose and requirements of local, state and federal heating, air-conditioning and refrigeration codes and standards as well as the manufacturer's installation instructions.
01.10	Identify and use OSHA practices when working with heating, air-conditioning and refrigeration systems and equipment.
01.11	Follow safety precautions when using hand and power tools.
01.12	Explain emergency procedures to follow in response to workplace accidents.

01.13	Create a disaster and/or emergency response plan.
02.0	Identify, use and maintain the tools and tool accessories used in the heating, air-conditioning and refrigeration industry--The student will be able to:
02.01	Identify and use basic hand tools and tool accessories; power tools (electric and mechanical); pipe and tube-working tools; and specialized tools of the trade.
02.02	Apply appropriate care and maintenance procedures for tools and tool accessories, following the directions in the tool-equipment manufacturer's manual.
03.0	Demonstrate mathematics knowledge and skills--The student will be able to:
03.01	Demonstrate knowledge of arithmetic operations.
03.02	Analyze and apply data and measurements to solve problems and interpret documents.
04.0	Demonstrate a practical knowledge of basic electricity and of the electrical components of heating, air-conditioning and refrigeration equipment--The student will be able to:
04.01	Explain the principles of electricity.
04.02	Explain single- and three-phase power distribution.
04.03	Define and explain watts, ohms, volts and amps.
04.04	Identify and explain electrical measuring tools and devices.
04.05	Explain the standards for and ways to measure watts, resistance, voltage and amperage, using appropriate instruments or devices.
04.06	Identify and explain appropriate electrical wiring symbols.
04.07	Draw and explain a wiring schematic diagram for a control system.
04.08	Create a wiring schematic for an air conditioner an electric furnace, a heat pump, an oil furnace (optional) and a gas furnace.
04.09	Explain codes and standards and safety requirements for working with the electrical components used in heating, air conditioning and refrigeration.
04.10	Troubleshoot protection devices, such as fuses and breakers.

05.0	Troubleshoot heating, air-conditioning and refrigeration electrical control systems and their components--The student will be able to:
05.01	Identify and explain the operations of electrical control systems and their components (zone damper motors, dual fuel lock out controls, outdoor thermostats/low ambient controls, defrost controls/timers and auxiliary heating controls, contactors, relays, circuit boards, motors, solenoids, and thermostats.).
05.02	Identify, install and troubleshoot controls for heating, air-conditioning and refrigeration systems.
05.03	Explain the operation of different types of electromechanical communicating, humidity control, and Wi-Fi operating thermostats.
05.04	Wire basic heating, air-conditioning and refrigeration systems.
05.05	Troubleshoot operational problems for different types of electromechanical communicating, humidity control, and Wi-Fi operating thermostats.
05.06	Explain the electrical and mechanical operations of the basic heat pump.
06.0	Select and test electrical generation and distribution components for commercial heating and air conditioning systems--The student will be able to:
06.01	Determine wire sizes and voltage drops.
06.02	Describe the operation of various types of transformers.
06.03	Draw and identify various power-transformers.
06.04	Test, size and replace protection devices such as fuses and breakers, motor starters and overloads.
07.0	Maintain, test and troubleshoot electrical motors and their components for commercial heating and air-conditioning systems--The student will be able to:
07.01	Explain how alternating current is developed and draw a sine wave.
07.02	Identify single-phase and three-phase wiring arrangements.
07.03	Explain how phase shift occurs in inductors and capacitors.
07.04	Describe the types of capacitors and their applications.

07.05	Explain the operation of single-phase and three-phase induction motors.
07.06	Identify the various types of single-phase motors and their applications.
07.07	Identify and explain the operations and applications of various types of electrical motors and their components as used in commercial heating and air-conditioning systems.
07.08	Maintain, test and troubleshoot various types of commercial electrical motors and their components as used in commercial heating and air-conditioning systems.
07.09	Demonstrate the proper use of motor testing equipment.
08.0	Troubleshoot and wire electrical motors and their components--The student will be able to:
08.01	Identify and explain the functions of various types of motors and their components.
08.02	Troubleshoot, test and analyze motors, using various methods.
08.03	Identify, troubleshoot and wire various types of electric motors.
08.04	Reverse the rotation of a motor.
09.0	Operate solid-state electronics as used in heating, air-conditioning and refrigeration systems--The student will be able to:
09.01	Explain the basic principles and functions of Direct Digital Control (DDC).
09.02	Explain basic solid-state circuits and boards.
09.03	Identify, test and replace circuits and boards.
09.04	Program a programmable thermostat.
10.0	Evaluate single-phase and three-phase power as used in heating, air-conditioning and refrigeration systems --The student will be able to:
10.01	Explain how the principles of designing an electrical system for residential heating and air-conditioning systems apply to commercial heating and air-conditioning systems.
10.02	Define and compare single- and multiphase voltage and current related to commercial heating and air-conditioning systems.



10.03	Calculate various circuit loads in commercial heating and air-conditioning applications using Ohm's law.
10.04	Troubleshoot electrical circuits for commercial heating and air-conditioning systems
11.0	Explain the function of basic electronics--The student will be able to:
11.01	Explain the basic theory of electronics and semiconductors.
11.02	Explain how various semiconductor devices such as diodes, LEDs and photo diodes work, and how they are used in power and control circuits.
11.03	Identify different types of resistors and explain how their resistance values can be determined.
11.04	Describe the operation and function of thermistors.

**Course Number: ACR0043**  
**Occupational Completion Point: B**  
**Air-Conditioning, Refrigeration and Heating Mechanic Assistant – 250 Hours – SOC Code 49-9021**

12.0	Describe the history and concepts of heating, air-conditioning and refrigeration--The student will be able to:
12.01	Explain the basic principles of heating, ventilation and air-conditioning.
12.02	Identify and explain the four major refrigeration components.
12.03	Identify and explain the characteristics of a compression-cycle refrigerant system.
12.04	Differentiate between air-conditioning and refrigeration.
12.05	Differentiate between split systems and package systems.
12.06	Describe the benefits of conditioned air and environments.
12.07	Identify various professional organizations, associations and societies and explain their purposes.
13.0	Explain the properties of matter and heat behavior--The student will be able to:

13.01	Describe and explain freezing point, critical temperature and absolute zero.
13.02	Explain the gas laws (Dalton, Boyle and Charles) used when dealing with air and its properties.
13.03	Describe matter, heat and heat transfer.
13.04	Differentiate between heat and temperature.
13.05	Explain and distinguish among the characteristics of the three states of matter.
13.06	Explain the relationship between temperature and humidity.
13.07	Differentiate between latent heat and sensible heat.
14.0	Analyze fluids, pressures, refrigerants and related codes--The student will be able to:
14.01	Identify the refrigeration cycle.
14.02	Identify and explain general safety issues and EPA rules and regulations regarding the handling of refrigerants.
14.03	Define and explain pressure, fluid and temperature.
14.04	Explain the standards for and ways to measure and calculate absolute and gauge pressures.
14.05	Identify and explain the classifications, properties and uses of different refrigerants.
14.06	Explain how fluids react and flow in a closed versus an open environment or vessel.
14.07	Define and identify "color-coding" of refrigerant cylinders.
14.08	Compare Pressure and Temperature (P/T) charts.
14.09	Explain the proper methods of transferring, storing and recovering refrigerants.
14.10	Explain the effects of an improper refrigerant and contaminants in a system.

15.0	Evaluate heating, air-conditioning and refrigeration system components and accessories--The student will be able to:
15.01	Explain the types, operation, use and maintenance requirements of
	a. Compressors (such as reciprocating, rotary, screw and scroll)
	b. Condensers and evaporators (such as evaporative condensers, evaporative coils, shell and tube, tube within a tube and fin and tube)
	c. Metering devices (such as adjusting automatic and thermostatic expansion valves, fixed orifices and other devices available on the local market)
15.02	Evaluate metering-device performance.
15.03	Explain the methods of compression, lubrication and compressor loading and unloading.
15.04	Analyze the operating condition of a compressor.
15.05	Test, troubleshoot and correct the causes of mechanical problems in a heating, air-conditioning and refrigeration system.
15.06	Identify the location and explain the uses of refrigerant flow accessories.
15.07	Identify the location and explain the uses of heating, air-conditioning and refrigeration-system accessories (such as receivers, dryers/filters, solenoid valves, heat exchangers, accumulators, suction filter, oil separators, evaporator pressure-regulating valve, crankcase pressure-regulating valves, hot gas bypass valves and check valves).
15.08	Evaluate system performance.
16.0	Select appropriate commercial compressors--The student will be able to:
16.01	Compare commercial-compressor requirements with those for residential and light commercial heating and air-conditioning systems.
16.02	Discuss appropriate commercial compressors for cooling requirements.
16.03	Describe the mechanical operation for each type of compressor.
16.04	Explain compressor lubrication methods.

16.05	Explain methods used to control compressor capacity.
16.06	Describe how compressor protection devices operate.
16.07	Perform the common procedures used when field servicing open and semi-hermetic compressors.
17.0	Test and adjust commercial evaporative condensers--The student will be able to:
17.01	Determine the proper air and fluid flow for commercial evaporative condensers.
17.02	Test and adjust the airflow for proper temperature difference.
17.03	Test and adjust the water flow for proper GPM and temperature difference.
17.04	Check for proper water treatment.
18.0	Maintain, test and troubleshoot commercial evaporators--The student will be able to:
18.01	Determine the operational requirements for evaporators used in commercial heating and air-conditioning applications.
18.02	Discuss appropriate evaporators for commercial heating and air-conditioning systems
18.03	Maintain, test and adjust various commercial heating and air-conditioning accessories.
18.04	Maintain, test and adjust commercial heating and air-conditioning accessories.
18.05	Compare commercial accessories with residential and light- commercial-heating and air-conditioning accessories.
18.06	Select the heating and air-conditioning accessories appropriate for various commercial applications.
19.0	Fabricate and service the piping, tubing and fittings used in the heating, air-conditioning and refrigeration industry--The student will be able to:
19.01	Identify and explain the purpose of the piping, tubing and fittings used in the heating, air-conditioning and refrigeration industry.
19.02	Bend tubing, using tube benders.

19.03	Connect tubing using flared fittings and compression fittings.
19.04	Connect tubing, using solderless connectors.
19.05	Connect tubing, using a swaged-joint connection.
19.06	Identify and use various types of torches.
19.07	Identify, select and use appropriate brazing alloys, materials and skills.
19.08	Explain the purposes and procedures for protecting piping materials and fabrication, such as valves, fittings and products from heat.
19.09	Braze tubing.
19.10	Silver-braze brass, steels and copper.
19.11	Demonstrate an understanding of the procedures for installing pipe and tubing insulation.
19.12	Explain the procedures required for installing heating, air-conditioning, refrigerant and ventilation accessories.
19.13	Fabricate and leak-test the piping, tubing and fittings used in the heating, air-conditioning and refrigeration industry.
19.14	Demonstrate proper safety measures when fabricating and servicing piping, tubing and fittings.

**Course Number: ACR0047**  
**Occupational Completion Point: C**  
**Air-Conditioning, Refrigeration and Heating Mechanic 1 – 250 Hours – SOC Code 49-9021**

20.0	Identify basic principles of heating, air conditioning, refrigeration and ventilation piping sizing--The student will be able to:
20.01	Identify and explain various types of heating, air-conditioning and refrigeration piping.
20.02	Identify basic principles of sizing various heating, air conditioning, refrigeration and ventilation for various tasks.
20.03	Explain pressure and temperature drops.

21.0	Utilize and operate mechanical refrigeration servicing and testing equipment--The student will be able to:
21.01	Identify the effects of superheat and sub-cooling on a system.
21.02	Identify and explain the functions of servicing and testing equipment (such as vacuum pumps, micron gauges, EPA-approved equipment, leak detectors and charging systems).
21.03	Operate a refrigerant recovery system.
21.04	Apply specific safety and recovery practices for refrigerants used in the industry.
21.05	Apply specific safety practices as they relate to handling and storing cylinders and materials.
21.06	Explain the standards for and ways to measure, test, maintain and evacuate a mechanical heating, air-conditioning and refrigeration system.
21.07	Evacuate the refrigerant system with various vacuum methods.
21.08	Demonstrate compliance with Environmental Protection Agency (EPA) rules and regulations and, if possible, take the EPA test.
21.09	Charge various air-conditioning and mechanical refrigeration systems by various methods.
21.10	Demonstrate the effects of superheat and sub-cooling on a system utilizing test equipment (such as thermometers and gages).
22.0	Assist in the installation of a residential heating and air-conditioning system and determine start-up procedures--The student will be able to:
22.01	Read and comply with dispatch orders.
22.02	Explain local codes and ordinances.
22.03	Select and use appropriate tools and safety practices to test equipment.
22.04	Determine the electrical requirements of equipment.
22.05	Assist in the installation of a heating and air-conditioning system to the manufacturer's installation and operation specifications, using a practical knowledge of duct fabrication methods.
22.06	Determine which charging method is appropriate for a given type of system in a residential air-conditioning unit and adjust superheat and/or sub-cooling.

22.07	Determine the temperature split/ difference across the evaporator.
22.08	Determine the temperature split/ difference across the condenser.
22.09	Write a service report.
22.10	Apply good customer-relations skills.
23.0	Conduct start-up and check-out procedures for mechanical heating and air-conditioning systems--The student will be able to:
23.01	Identify and explain the following heat-pump systems air-to-air, water-to-air, water-to-water, air-to-ground (geothermal), open-loop and closed-loop.
23.02	Determine the start-up and checkout procedures recommended by different manufacturers.
23.03	Determine the electrical requirements of equipment.
23.04	Select and use appropriate tools, instruments and test equipment following safety precautions.
23.05	Determine the temperature split/ difference across the outdoor coil on a heat pump.
23.06	Determine the temperature split/ difference across the indoor coil on a heat pump.
23.07	Apply good customer-relations skills.
24.0	Demonstrate a working knowledge of refrigerants and oils--The student will be able to:
24.01	Identify the refrigerants in common use and state the types of applications in which each is used.
24.02	Explain the effects of releasing refrigerants into the atmosphere.
24.03	Explain how refrigerants are classified by their chemical composition.
24.04	Describe the color-coding scheme used to identify refrigerant cylinders.
24.05	Describe how azeotropes and near-azeotropes differ from each other and from so-called pure refrigerants.

24.06	Interpret a P-T chart for pure refrigerants, azeotrope, and near-azeotrope refrigerants and explain the difference between bubble point and dew point.
24.07	Demonstrate refrigerant leak detecting methods.
24.08	Identify the different types of oils used in refrigeration systems and explain their relationships to the various refrigerants.
24.09	Explain how to add and remove oil from a system.
24.10	Describe how to test oil for contamination.
25.0	Conduct system startup and shutdown--The student will be able to:
25.01	Start up and shut down an air handler and related forced-air distribution system.
25.02	Test compressor oil for acid contamination.
25.03	Add or remove oil from a semi-hermetic or open reciprocating compressor.
26.0	Explain the importance of employability and entrepreneurship skills--The student will be able to:
26.01	Identify and demonstrate positive work behaviors needed to be employable.
26.02	Develop personal career plan that includes goals, objectives and strategies.
26.03	Examine licensing, certification and industry credentialing requirements.
26.04	Maintain a career portfolio to document knowledge, skills and experience.
26.05	Evaluate and compare employment opportunities that match career goals.
26.06	Identify and exhibit traits for retaining employment.
26.07	Identify opportunities and research requirements for career advancement.
26.08	Research the benefits of ongoing professional development.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student. Access MyCareerShines by visiting: [www.mycareershines.org](http://www.mycareershines.org).

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Basic Skills (if applicable)**

In PSAV programs offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 9, and Reading 9. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3)(a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.

## **Additional Resources**

For additional information regarding articulation agreements, Bright Futures Scholarships, Fine Arts/Practical Arts Credit and Equivalent Mathematics and Equally Rigorous Science Courses please refer to:

<http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.shtml>