

Florida Department of Education  
INTENDED OUTCOMES**Program Title: Respiratory Care**

PSV

CIP Numbers	0317.081800-AAS 1317.081800-AS
Grade Level	College
Standard Length	Associate Degree/76 credit hours

**MAJOR CONCEPTS/CONTENT:** This program trains students for the occupation of Respiratory Therapist (SOC Code 29-1126) or to provide supplemental training for persons previously or currently employed in these occupations. The respiratory therapist specializes in the application of scientific knowledge and theory to practical, clinical problems of respiratory care.

The respiratory therapist may be required to exercise considerable independent, clinical judgment in the respiratory care of patients under the direct or indirect supervision of a physician. Further, the therapist is capable of serving as a technical resource person to the physician with regard to current practices in respiratory care, and to the hospital staff as to effective and safe methods for administering respiratory therapy.

The respiratory therapist's scope of patient care in an institution or home environment includes, but is not limited to, quality control of all units, intermittent positive pressure breathing (IPPB); humidity/aerosol therapy; medical gas administration; broncho-pulmonary drainage; mechanical ventilation; airway management; emergency care; pulmonary function testing; cardiorespiratory rehabilitation; measurement and reporting of cardiopulmonary sampling, infection control; cardiorespiratory drug administration, physiologic monitoring, and special advanced procedures .

The standard credit hour length for this program is 76 credit hours according to Rule 6A-14.030.

**SPECIAL NOTE:** This program meets the Department of Health HIV/AIDS education requirements and upon completion of this program, the instructor will provide a certificate to the student verifying that the HIV/AIDS requirements have been met.

The Health Occupations Students of America, Inc.(HOSA) is an appropriate career and technical student organization(CSO) for providing leadership training experiences and reinforcing specific vocational skills. CSOs, when provided, shall be an integral part of the vocational instructional program, and the activities of such organizations are defined as part of the curriculum in accordance with Rule 6A-6.065(8), F.A.C.

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Adult students with disabilities must self-identify and request such services. 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.

**INTENDED OUTCOMES:**

Outcomes 01-11 are referred to as the Health Careers Core and do not have to be completed if the student has previously completed the Core in another health science program. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the national internet certification examination (Nocti) with instructor approval and the completion of a portfolio.

After successfully completing the core curriculum of this program, the student will be able to:

**HEALTH CAREERS CORE (01-11) OCP A-Basic Healthcare Worker-Industry  
Title- SOC 31-9099 Healthcare Support Worker, All Other**

- 01.0 Demonstrate knowledge of the health care delivery system and health occupations.
- 02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
- 03.0 Demonstrate legal and ethical responsibilities.
- 04.0 Demonstrate an understanding of and apply wellness and disease concepts.
- 05.0 Recognize and practice safety and security procedures.
- 06.0 Recognize and respond to emergency situations.
- 07.0 Recognize and practice infection control procedures.
- 08.0 Demonstrate computer literacy.
- 09.0 Demonstrate employability skills.
- 10.0 Demonstrate knowledge of blood borne diseases, including AIDS.
- 11.0 Apply basic math and science skills.

**RESPIRATORY CARE (12-21) SOC Code 29-1126 (Respiratory Therapists)**

- 12.0 Select, review, obtain, and interpret patient data.
- 13.0 Select, assemble, and check equipment for proper function, operation, and cleanliness.
- 14.0 Initiate, conduct and modify prescribed therapeutic procedures.
- 15.0 Maintain records and communications.
- 16.0 Demonstrate knowledge of employment requirements as a Respiratory Care Professional.
- 17.0 Adapt appropriate respiratory care procedures to the home care environment.
- 18.0 Perform advanced respiratory care procedures.
- 19.0 Administer cardiorespiratory drugs.
- 20.0 Assist the physician with special respiratory therapy procedures.
- 21.0 Demonstrate leadership and supervisory skills.

**Florida Department of Education  
STUDENT PERFORMANCE STANDARDS**

**PROGRAM TITLE:** Respiratory Care  
**POSTSECONDARY NUMBER:** 0317.081800

**HEALTH CAREERS CORE:** The Health Careers Core is a core of basic knowledge necessary for any health occupations career. Students who have previously completed the Health Careers Core or any other health occupations program do not have to repeat intended outcomes 01-11.

**01.0 DEMONSTRATE KNOWLEDGE OF THE HEALTH CARE DELIVERY SYSTEM AND HEALTH OCCUPATIONS** -- The student will be able to:

- 01.01 Identify the basic components of the health care delivery system.
- 01.02 Describe the various types of health care providers and the range of services available including resources to victims of domestic violence.
- 01.03 Describe the composition and functions of a health care team.
- 01.04 Identify the general roles and responsibilities of the individual members of the health care team.
- 01.05 Develop a basic understanding of human needs throughout the lifespan.
- 01.06 Explain the importance of maintaining professional competence through continuing education.
- 01.07 Describe trends affecting the delivery system of health care.

**02.0 DEMONSTRATE THE ABILITY TO COMMUNICATE AND USE INTERPERSONAL SKILLS EFFECTIVELY** -- The student will be able to:

- 02.01 Develop basic listening skills.
- 02.02 Develop basic observational skills and related documentation strategies in written and oral form.
- 02.03 Identify characteristics of successful and unsuccessful communication including barriers.
- 02.04 Respond to verbal and non-verbal cues.
- 02.05 Compose written communication using correct spelling, grammar, and format.
- 02.06 Use appropriate medical terminology and abbreviations.
- 02.07 Recognize the importance of courtesy and respect for patients and other health care workers and maintain good interpersonal relationships.
- 02.08 Recognize the importance of patient/client education regarding health care.
- 02.09 Adapt communication skills to varied levels of understanding and cultural orientation.
- 02.10 Demonstrate telephone usage including taking messages.
- 02.11 Demonstrate ability to give and follow directions.
- 02.12 Distinguish between factual reports and personal opinion.

**03.0 DEMONSTRATE LEGAL AND ETHICAL RESPONSIBILITIES** -- The student will be able to:

- 03.01 Discuss the legal framework of the health care occupation.
- 03.02 Explain the medical liability of health care workers.

- 03.03 Explain the patients' "Bill of Rights."
  - 03.04 Describe a Code of Ethics consistent with the health care occupation.
  - 03.05 Discuss the importance of maintaining confidentiality of information, including computer information.
  - 03.06 Recognize the limits of authority and responsibility of health care workers.
  - 03.07 Recognize and report illegal and unethical practices of health care workers.
  - 03.08 Recognize and report abuse and neglect.
  - 03.09 Recognize sexual harassment and domestic violence.
- 04.0 DEMONSTRATE AN UNDERSTANDING OF AND APPLY WELLNESS AND DISEASE CONCEPTS -- The student will be able to:
- 04.01 Develop a basic understanding of the structure and function of the body systems.
  - 04.02 Identify personal health practices and environmental factors which affect optimal function of each of the major body systems.
  - 04.03 Identify psychological reactions to illness including defense mechanisms.
  - 04.04 Recognize the steps in the grief process.
  - 04.05 Explain basic concepts of positive self image, wellness and stress.
  - 04.06 Develop a wellness and stress control plan that can be used in personal and professional life.
  - 04.07 Explain the nutrition pyramid.
- 05.0 RECOGNIZE AND PRACTICE SAFETY AND SECURITY PROCEDURES  
-- The student will be able to:
- 05.01 Demonstrate the safe use of medical equipment.
  - 05.02 Recognize and report safety hazards.
  - 05.03 Identify and practice security procedures for medical supplies and equipment.
  - 05.04 Demonstrate proper body mechanics.
  - 05.05 Demonstrate the procedure for properly identifying patients.
  - 05.06 Demonstrate procedures for the safe transport and transfer of patients.
  - 05.07 Describe fire safety and evacuation procedures.
- 06.0 RECOGNIZE AND RESPOND TO EMERGENCY SITUATIONS  
-- The student will be able to:
- 06.01 Monitor and record vital signs.
  - 06.02 Describe legal parameters relating to the administration of emergency care.
  - 06.03 Obtain and maintain BLS skills of basic rescuer or higher.
  - 06.04 Demonstrate basic understanding of first aid and emergency care.
  - 06.05 Recognize adverse drug related emergencies and take appropriate first aid action.
- 07.0 RECOGNIZE AND PRACTICE INFECTION CONTROL PROCEDURES  
-- The student will be able to:
- 07.01 Demonstrate knowledge of medical asepsis and practice procedures such as handwashing and isolation.

- 07.02 Demonstrate knowledge of surgical asepsis as utilized in sterilization.
- 07.03 Describe how to dispose correctly of biohazardous materials, according to appropriate government guidelines such as OSHA.
- 08.0 DEMONSTRATE COMPUTER LITERACY -- The student will be able to:
  - 08.01 Define terms and demonstrate basic computer skills.
  - 08.02 Describe the uses of computers in health care.
- 09.0 DEMONSTRATE EMPLOYABILITY SKILLS -- The student will be able to:
  - 09.01 Conduct a job search.
  - 09.02 Secure information about a job.
  - 09.03 Identify documents that may be required when applying for a job.
  - 09.04 Complete a job application form correctly.
  - 09.05 Demonstrate competence in job interview techniques.
  - 09.06 Identify or demonstrate appropriate responses to criticism from employer, supervisor, or other persons.
  - 09.07 Identify acceptable work habits.
  - 09.08 Demonstrate knowledge of how to make job changes appropriately.
  - 09.09 Demonstrate desirable health habits.
  - 09.10 Recognize appropriate affective/professional behavior.
  - 09.11 Write an appropriate resume.
- 10.0 DEMONSTRATE KNOWLEDGE OF BLOOD BORNE DISEASES, INCLUDING AIDS -- The student will be able to:
  - 10.01 Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens including Hepatitis B.
  - 10.02 Identify community resources and services available to the individuals with diseases caused by blood borne pathogens.
  - 10.03 Identify "at risk" behaviors which promote the spread of diseases caused by blood borne pathogens and the public education necessary to combat the spread of these diseases.
  - 10.04 Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following Centers for Disease Control (CDC) guidelines.
  - 10.05 Demonstrate knowledge of the legal aspects of AIDS, including testing.
- 11.0 APPLY BASIC MATH AND SCIENCE SKILLS -- The student will be able to:
  - 11.01 Draw, read, and report on graphs, charts and tables.
  - 11.02 Measure time, temperature, distance, capacity, and mass/weight.
  - 11.03 Make and use measurements in both traditional and metric units.
  - 11.04 Make estimates and approximations and judge the reasonableness of the result.
  - 11.05 Convert from regular to 24 hour time.
  - 11.06 Demonstrate ability to evaluate and draw conclusions.

- 11.07 Organize and communicate the results obtained by observation and experimentation.
- 11.08 Ask appropriate scientific questions and recognize what is involved in experimental approaches to the solution of such questions.
- 11.09 Calculate ratios.

RESPIRATORY CARE (12-21)

Completers are eligible to take the NBRC examination and become licensed with Agency for Health Care Administration (AHCA).

12.0 SELECT, REVIEW, OBTAIN AND INTERPRET DATA--The student will be able to:

- 12.01 Review existing data in patient record, and recommend diagnostic procedures based on all available patient information.
  - 12.01.01 Review existing data in patient record.
  - 12.01.02 Recommend procedures to obtain additional data.
- 12.02 Collect and evaluate additional pertinent clinical information.
  - 12.02.01 Assess patient's overall cardiorespiratory status by inspection.
  - 12.02.02 Assess patient's overall cardiopulmonary status by palpation.
  - 12.02.03 Assess the patient's overall cardiopulmonary status by auscultation.
  - 12.02.04 Interview patient.
  - 12.02.05 Inspect chest x-ray to determine position of endotracheal or tracheostomy tube.
- 12.03 Perform procedures and interpret results.
  - 12.03.01 Perform and/or interpret results of bedside procedures.
  - 12.03.02 Perform and interpret results.
  - 12.03.03 Interpret co-oximetry results.
- 12.04 Determine the appropriateness of the prescribed respiratory care plan, recommend modifications where indicated, and participate in the development of the respiratory care plan.
  - 12.04.01 Review planned therapy to establish therapeutic goals.
  - 12.04.02 Determine appropriateness of prescribed therapy and goals for identified pathophysiological state.
  - 12.04.03 Recommend changes in therapeutic plan (based on data) if indicated.
  - 12.04.04 Participate in development of respiratory care plan.

13.0 SELECT, ASSEMBLE, AND CHECK EQUIPMENT FOR PROPER FUNCTION, OPERATION AND CLEANLINESS--The student will be able to:

- 13.01 Select and obtain equipment, and assure cleanliness of equipment appropriate to the respiratory care plan which includes the following:

- a. Oxygen administration devices.
  - b. Humidifiers.
  - c. Aerosol generators.
  - d. Ventilators.
  - e. Artificial airways.
  - f. Suctioning devices.
  - g. Gas delivery, metering, and clinical analyzing devices.
  - h. Manometers and gauges.
  - I. Resuscitation devices.
  - j. Incentive breathing devices.
  - k. Patient breathing circuits.
  - l. Percussors and vibrators.
  - m. Environmental devices - aerosol (mist) tents.
  - n. Metered dose inhalers (MDI) and spacers.
  - o. Assure selected equipment cleanliness.
- 13.02 Assemble, check for proper function, identify malfunctions of equipment, and take action to correct malfunctions of equipment which includes the following:
- a. Oxygen administration devices.
  - b. Humidifiers.
  - c. Aerosol generators.
  - d. Resuscitation devices.
  - e. Ventilators.
  - f. Artificial airways.
  - g. Gas delivery, metering and clinical analyzing devices.
  - h. Suctioning devices.
  - I. Patient breathing circuits.
  - j. Incentive breathing devices.
  - k. Environmental devices - aerosol (mist) tents.
  - l. Percussors and vibrators.
  - m. Metered dose inhalers (MDI) and spacers.
  - n. Manometers and gauges.
- 14.0 INITIATE, CONDUCT, AND MODIFY PRESCRIBED THERAPEUTIC PROCEDURES--  
The student will be able to:
- 14.01 Explain planned therapy and goals to patients; maintain records and communication; and protect patient from nosocomial infection.
    - 14.01.01 Explain planned therapy and goals to patient in understandable terms to achieve optimal therapeutic outcome.
    - 14.01.02 Maintain records and communication.
    - 14.01.03 Protect patient from nosocomial infection by adherence to infection control policies and procedures (universal precautions, blood and body fluid precautions, etc.).
  - 14.02 Conduct therapeutic procedures to achieve maintenance of patent airway, including the care of artificial airways; and to achieve removal of bronchopulmonary secretions.
    - 14.02.01 Achieve maintenance of patient airway.
    - 14.02.02 Achieve removal of bronchopulmonary secretions.
  - 14.03 Conduct therapeutic procedures to achieve adequate spontaneous and artificial ventilation.
    - 14.03.01 Instruct in proper breathing techniques.
    - 14.03.02 Encourage deep breathing.
    - 14.03.03 Instruct and monitor techniques of incentive spirometry.
    - 14.03.04 Administer prescribed bronchodilators.

- 14.03.05 Initiate and adjust IPPB therapy.
- 14.03.06 Select appropriate ventilator.
- 14.03.07 Select appropriate tidal volume, rate, and/or minute ventilation for mechanical ventilation.
- 14.03.08 Institute and modify weaning procedures.
- 14.03.09 Initiate and adjust continuous mechanical ventilation when settings are specified.
- 14.03.10 Initiate and adjust IMV, SIMV, pressure support ventilation (PSV).
- 14.04 Conduct therapeutic procedures to achieve adequate arterial and tissue oxygenation.
  - 14.04.01 Position patient to minimize hypoxia.
  - 14.04.02 Administer oxygen (on or off ventilator).
  - 14.04.03 Prevent procedure-associated hypoxia (e.g. oxygenated before and after suctioning and equipment change, etc.).
  - 14.04.04 Initiate and adjust CPAP.
  - 14.04.05 Initiate and adjust PEEP therapy.
- 14.05 Evaluate and monitor patient's response to respiratory care.
  - 14.05.01 Measure and record vital signs.
  - 14.05.02 Monitor cardiac rhythm.
  - 14.05.03 Perform pulse oximetry.
  - 14.05.04 Auscultate chest and record changes.
  - 14.05.05 Observe changes in sputum production and consistency.
  - 14.05.06 Note patient's subjective response to therapy.
  - 14.05.07 Measure  $F_{I}O_2$  and or liter flow.
  - 14.05.08 Perform spirometry/determine vital capacity.
  - 14.05.09 Perform arterial puncture.
  - 14.05.10 Interpret results of arterial blood gas analysis.
  - 14.05.11 Adjust and check alarm systems.
  - 14.05.12 Note patient's response to mechanical ventilation.
  - 14.05.13 Measure tidal volume, respiratory rate, airway pressures, I:E ratio, and maximum inspiratory pressure.
  - 14.05.14 Monitor endotracheal or tracheostomy tube cuff pressure.
- 14.06 Make necessary modifications in therapeutic procedures and recommend respiratory care plan modifications based on patient response.
  - 14.06.01 Terminate treatment based on patient's adverse reaction to therapy being administered.
  - 14.06.02 Modify bronchial hygiene.
  - 14.06.03 Modify management of artificial airways.
  - 14.06.04 Modify incentive breathing devices.
  - 14.06.05 Modify aerosol therapy.
  - 14.06.06 Modify oxygen therapy.
  - 14.06.07 Modify suctioning.
  - 14.06.08 Modify mechanical ventilation.
  - 14.06.09 Recommend modifications in the respiratory care plan based on the patient's response.
- 14.07 Initiate, conduct, or modify respiratory care techniques in an emergency setting.
  - 14.07.01 Recognize the need for emergency resuscitation.
  - 14.07.02 Call for help.
  - 14.07.03 Establish a patent airway.

- 14.07.04 Use mouth-to-mouth, bag-mask ventilation, and/or mouth-to-valve mask ventilation.
- 14.07.05 Perform external cardiac compression.
- 14.07.06 Check pulse.
- 14.07.07 Provide supplemental oxygen.
- 14.07.08 Observe chest excursion.
- 14.07.09 Recommend obtaining arterial blood gas sample.

15.0 MAINTAIN RECORDS AND COMMUNICATIONS--The student will be able to:

- 15.01 Use computer system to access and input patient data, when appropriate.
- 15.02 Chart on medical record; record therapy and results using conventional terminology as required by hospital policy and regulatory agencies.
- 15.03 Be familiar with and use departmental policy and procedure manual; actively participate in recommending updates.
- 15.04 Consistently display a professional and positive attitude in all communications.
- 15.05 Display respect for patients regardless of race, religion, color, creed, sex, age, or diagnosis.
- 15.06 Maintain confidentiality of all patient records and information.

16.0 DEMONSTRATE KNOWLEDGE OF EMPLOYMENT REQUIREMENTS AS A RESPIRATORY CARE PROFESSIONAL--The student will be able to:

- 16.01 Identify state licensure and continuing education requirements.
- 16.02 Discuss the Respiratory Care Act.
- 16.03 List the minimum competency requirements to practice in the state.

RESPIRATORY CARE (17-21)

Completers are eligible to take the NBRC examination and become licensed with Agency for Health Care Administration (AHCA).

17.0 ADAPT APPROPRIATE RESPIRATORY CARE PROCEDURES TO THE HOME CARE ENVIRONMENT--The student will be able to:

- 17.01 Provide for O<sub>2</sub> administration, aerosol and bronchial hygiene therapy and lung expansion therapy in the home.
- 17.02 Arrange for life support and monitoring (i.e. mechanical ventilation, apnea monitoring, nasal CPAP) in the home.
- 17.03 Instruct patient, family and other health care workers on the appropriate use, operation, cleaning and maintenance of respiratory care equipment.
- 17.04 Perform patient monitoring and assessment in the home.
- 17.05 Recognize and report symptoms of abuse and neglect.

18.0 PERFORM ADVANCED RESPIRATORY CARE PROCEDURES--The student will be able to:

- 18.01 Assume primary clinical responsibility for all respiratory care modalities.
- 18.02 Check physicians orders or consult with physician.
- 18.03 Design and implement respiratory care plan as appropriate.

- 18.04 Perform pulmonary artery sampling.
  - 18.05 Perform cardiac output procedures.
  - 18.06 Perform arterial line set up and monitoring.
  - 18.07 Perform transcutaneous gas monitoring.
  - 18.08 Perform non invasive monitoring techniques as appropriate.
  - 18.09 Perform pulseoximetry monitoring.
  - 18.10 Perform various advanced procedures, based on local practice.
  - 18.11 Remove, clean and replace inner canula tube and/or replace tracheostomy tube, as ordered.
  - 18.12 Perform various mathematical computations dealing with cardiopulmonary assessment.
  - 18.13 Intubate infant.
  - 18.14 Initiate infant mechanical ventilation with appropriate ventilator and parameter including CPAP and PEEP.
  - 18.15 Extubate infant, within recommended criteria.
  - 18.16 Monitor return to normal physiology; reventilate if necessary.
  - 18.17 Add positive end expiratory pressure (PEEP) to ventilator circuit.
  - 18.18 Perform extubation of adult patient.
  - 18.19 Monitor return to normal physiology, reintubate if necessary.
- 19.0 ADMINISTER CARDIORESPIRATORY DRUGS--The student will be able to:
- 19.01 Demonstrate knowledge of drug classifications, actions and uses, route of administration and usual adult doses, mathematics needed to calculate divided or children's dosage, contraindications, drug interactions, adverse reactions, how supplied, mixing instructions, storage, laboratory test interferences.
  - 19.02 Recognize the critical importance of this activity and follow directions.
  - 19.03 Verify physicians orders.
  - 19.04 Prepare medication for administration.
  - 19.05 Identify patient, introduce self.
  - 19.06 Administer drug.
  - 19.07 Document administering of drug in all appropriate records.
  - 19.08 Recognize the symptoms of drug idiosyncracies.
  - 19.09 Identify adverse drug reactions and take appropriate action.
  - 19.10 Recognize anaphylactic shock.
- 20.0 ASSIST THE PHYSICIAN WITH SPECIAL RESPIRATORY THERAPY PROCEDURES--  
The student will be able to:
- 20.01 Assist with insertion and maintenance of an umbilical arterial and/or venous catheter.
  - 20.02 Assist with bronchoscopy, chest tubes, cardiac catheterizations.
  - 20.03 Assist with Swan-Ganz catherization and other invasive monitoring.
  - 20.04 Assist with thoracentesis and tracheostomy.
- 21.0 DEMONSTRATE LEADERSHIP AND SUPERVISORY SKILLS--The student will be able to:

- 21.01 Perform evaluations of subordinate personnel, maintaining objectivity.
- 21.02 Make assignments to appropriate personnel within the department.
- 21.03 Observe employee behavior and counsel re attitudes, demeanor, appearance, protocol, interaction.
- 21.04 Encourage/provide continuing education activities.
- 21.05 Observe subordinate performing procedures, correct discrepancies.
- 21.06 Instruct subordinates in new procedures/new equipment.
- 21.07 Demonstrate knowledge of productivity and control of resources, using budgeting, inventory control, and ordering of supplies.
- 21.08 Recognize state-required licensure and documentation (i.e., experiential and public display).