

## RESPIRATORY CARE

**Faculty: Jacque Sullivan, chair; Michael Samp, director of clinical education; Dr. John Bray, medical director; Dr. Gregory Theodore, associate medical director.**

Odessa College offers an intensive program, which prepares the student to become an integral part of the allied health team. The program graduates a student with an associate of applied science degree and qualifies them to apply for the Certified Respiratory Therapist (CRT) examination and the Registered Respiratory Therapist (RRT) examination administered by the National Board for Respiratory Care.

The curriculum balances general educational and technical courses with supervised clinical practice in conjunction with area medical affiliates. These combined experiences provide students with an opportunity for educational development as well as occupational competence during the 22-month program.

Students are admitted on a selected basis due to limited space in the clinical area of study. To be considered for admission to the program, a prospective student must be a high school graduate or equivalent, achieve a satisfactory score on selected entrance exams, complete a hospital observation, and be approved by the admissions committee. After acceptance into the program, all students are required to maintain a grade of "C" or better in all respiratory care courses and must maintain a "C" average or better in all other courses. Students failing to meet these scholastic requirements will be dropped from the program. All respiratory care courses must be taken in the proper sequence as described in the catalog. Prior to entering the clinical portion of the program, students are required to complete a physical examination, including drug screening, background check, and provide records of current immunization status.

**Note: All respiratory care students are required to have health and accident insurance. Liability insurance is also required and is part of the regular college fee schedule.**

The Odessa College respiratory care program is accredited by the Committee on Accreditation of Allied Health Programs through the recommendations of the Committee on Accreditation of Respiratory Care.

Students wishing to apply or seeking additional information should contact the department chair or the Student Development Center. Prospective students are to submit their applications for admissions prior to March 31.

### COURSE OF STUDY FOR ASSOCIATE IN APPLIED SCIENCE DEGREE RESPIRATORY THERAPY

#### First Year

	Semester Hrs
<b>Summer Session I</b>	
BIOL 2401 Anatomy and Physiology I .....	4
MATH 1332 Structures of College Mathematics I <u>or</u> higher level math .....	3
<b>Summer Session II</b>	
BIOL 2402 Anatomy and Physiology II .....	4
<b>Fall Semester</b>	
Humanities/Fine Arts: At least three hours from art, Bible, mass communication (COMM 1316, COMM 1318 or COMM 1319), English (except ENGL 1301, ENGL 1312 or ENGL 2311), history, any foreign language (except SPAN 1300), music, philosophy or photography .....	3
PHED 1166 CPR for Allied Health .....	1
RSPT 1103 Medical Terminology .....	1
RSPT 1160 Clinical Practice I .....	1
RSPT 1325 Respiratory Care Sciences .....	3
RSPT 1410 Respiratory Care Procedures I .....	4
<b>Spring Semester</b>	
RSPT 1213 Basic Respiratory Care Pharmacology .....	2
RSPT 1360 Clinical Practice II .....	3
RSPT 1411 Respiratory Care Procedures II .....	4

RSPT 2310	Cardiopulmonary Disease .....	3
SPCH 1321	Business and Professional Speech .....	3

**Summer Sessions I & II**

RSPT 2314	Mechanical Ventilation .....	3
RSPT 2360	Clinical Practice III .....	3

**Second Year**

**Fall Semester**

BIOL 2420	Microbiology .....	4
RSPT 2325	Cardiopulmonary Diagnostics .....	3
RSPT 2353	Neonatal/Pediatric Cardiopulmonary .....	3
RSPT 2361	Clinical Practice IV .....	3

**Spring Semester**

ENGL 1301	Composition and Rhetoric .....	3
GOVT 2305	Federal Government <b>or</b> GOVT 2306 Texas Government .....	3
RSPT 2133	Respiratory Care Case Management .....	1
RSPT 2231	(Clinical) Simulations in Respiratory Care .....	2
RSPT 2247	Specialties in Respiratory Care .....	2
RSPT 2363	Clinical Practice V .....	3

<b>Total Hours</b> .....		<b>72</b>
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**RESPIRATORY CARE COURSES**

**RSPT 1103 Medical Terminology**

(1-0) 1 hour  
An introduction to medical terms which will provide the student with the written and verbal skills necessary to communicate with health care personnel. (SCANS 1)  
Prerequisite: Admission to respiratory care program. Corequisites: RSPT 1160, RSPT 1325 and RSPT 1410.

**RSPT 1160 Clinical - Respiratory Therapy Technician - Clinical Practice I** (0-6) 1 hour

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Provides the initial exposure to the hospital environment. Strengthens communication and decision-making skills by observation and administration of respiratory care modalities. Requires application of patient assessment techniques, utilizing medical terminology, documentation, interpretation of medical records, and provides opportunity to apply sterilization

techniques. (SCANS 1, 5, 6, 8, 9, 11)  
Prerequisite: Admission to respiratory care program. Corequisites: RSPT 1103, RSPT 1325 and RSPT 1410.

**RSPT 1213 Basic Respiratory Care Pharmacology** (2-0) 2 hours

A study of basic pharmacological principles/practices of respiratory care drugs. Emphasis on classification, routes of administration, dosages/calculations, and physiological interaction. (SCANS 3, 6, 7, 8, 9, 11) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1360, RSPT 1411 and RSPT 2310.

**RSPT 1325 Respiratory Care Sciences** (2-4) 3 hours

A study of cardiopulmonary sciences including physics, math, chemistry, and statistics. Lab fee required. (SCANS 2, 3, 6, 8, 9, 11) Prerequisites: Admission to respiratory care program. Corequisites: RSPT 1103, RSPT 1160 and RSPT 1410.

**RSPT 1360 Clinical - Respiratory Therapy Technician - Clinical Practice II** (0-16) 3 hours

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Allows students to participate as a member of the health care team in a clinical setting, including decision-making and troubleshooting skills. Enforces the personal qualities for success such as workplace ethics, time-management and organizational skills, responsibility, and sociability. (SCANS 4, 5, 8, 9, 10) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1213, RSPT 1411 and RSPT 2310.

**RSPT 1410 Respiratory Care Procedures I** (3-4) 4 hours

Provides students with the essential knowledge of the equipment and techniques used in the treatment of pulmonary disease and their clinical application. The following areas are

discussed in-depth: oxygen therapy, humidity and aerosol therapy, hyperinflation therapy, chest physiotherapy, pulse oximetry, arterial puncture, and interpretation. Lab fee required. (SCANS 3, 8) Prerequisite: Admission to respiratory care program. Corequisites: RSPT 1103, RSPT 1160 and RSPT 1325.

**RSPT 1411 Respiratory**

**Care Procedures II** (3-4) 4 hours

Provides student with essential knowledge of airway care and mechanical ventilation. Airway care includes indication, techniques, equipment, and hazards and complications. Mechanical ventilation includes indications, initiation, modes, clinical application, management, complications, and weaning. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1213, RSPT 1360 and RSPT 2310.

**RSPT 2133 Respiratory**

**Care Case Management** (1-0) 1 hour

Preparation and presentation of the case study. Instruction in the investigation, organization, and presentation of the material, including preparation of questions for group discussion. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2231, RSPT 2247 and RSPT 2363.

**RSPT 2231 Clinical - Simulations in Respiratory**

**Care** (2-0) 2 hours

The theory and history of clinical simulation examinations. Topics include the construction types, scoring, and mechanics of taking the exam along with practice in taking both written and computerized simulations, and basic concepts of computer usage. (SCANS 6) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2133, RSPT 2247 and RSPT 2363.

**RSPT 2247 Specialties**

**in Respiratory Care** (1-2) 2 hours

An introduction to areas of interest in which the respiratory therapist may find application and/or employment.

The depth of instruction will provide the indications, expected outcomes, hazards and methods for hyperbaric oxygen (HBO), extracorporeal membrane oxygenation (ECMO), nitric oxide (NO), sleep studies, nutritional assessment, metabolic monitoring, exercise/stress testing, and electroencephalograms. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2133, RSPT 2231 and RSPT 2363.

**RSPT 2310 Cardiopulmonary Disease** (2-4) 3 hours

A discussion of pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Lab fee required. (SCANS 1, 3, 6, 8) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1213, RSPT 1360 and RSPT 1411.

**RSPT 2314 Mechanical**

**Ventilation** (2-3) 3 hours

Preparation to conduct the therapeutic procedures to achieve adequate, spontaneous, and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Also included are the indications, complications, and physiologic effects/principles of mechanical ventilation. Lab fee required. (SCANS 3, 6, 8, 9) Prerequisites: RSPT 1213, RSPT 1360, RSPT 1411 and RSPT 2310. Corequisite: RSPT 2360.

**RSPT 2325 Cardiopulmonary Diagnostics** (2-4) 3 hours

A study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2314 and RSPT 2360. Corequisites: RSPT 2353 and RSPT 2361.

**RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care** (2-4) 3 hours

A study of acute care, monitoring, and management as applied to the neonatal

and pediatric patient. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2314 and RSPT 2360. Corequisites: RSPT 2325 and RSPT 2361.

**RSPT 2360 Clinical - Respiratory Therapy Technician - Clinical**

**Practice III** (0-12) 3 hours

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Provides the student opportunities to demonstrate responsibility, creative thinking, and decision-making skills in critical area. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: RSPT 1213, RSPT 1360, RSPT 1411 and RSPT 2310. Corequisite: RSPT 2314.

**RSPT 2361 Clinical - Respiratory Therapy Technician - Clinical**

**Practice IV** (0-16) 3 hours

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prepares the student for advanced respiratory techniques including radiologic techniques, operating room rotations, neonatal care, cardiac catheterization, and adult and pediatric critical care. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisites: RSPT 2314 and RSPT 2360. Corequisites: RSPT 2325 and RSPT 2353.

**RSPT 2363 Clinical - Respiratory Therapy Technician - Clinical**

**Practice V** (0-16) 3 hours

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Completion of the clinical experience prepares the student to perform as a respiratory therapist. (SCANS 2, 4, 5, 6, 7, 8, 9) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2133, RSPT 2231 and RSPT 2247.