

# Respiratory Therapy

## Degree

- Respiratory Therapy (HSC.RSP.AAS) (<http://catalog.oaklandcc.edu/programs/respiratory-therapy/respiratory-therapy-aas/>)

## Respiratory Therapy Courses

### RSP 1220 Introduction to Respiratory Care ..... 4 Credit Hours

**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.

**Prerequisite:** Admission to the Respiratory Therapy Program.

**Corequisite:** RSP 2230 RSP 2240

**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

The course will provide an overview of the historical development and current practice of Respiratory Care. The student will be familiarized with common abnormalities of the cardiopulmonary system and with the respiratory care modalities used to manage these problems. A brief review of the goals, indications, contraindications, and potential hazards of respiratory care procedures will be introduced through class discussion and demonstration. Equipment related to Respiratory Care modalities will be demonstrated and floor therapy procedures will be introduced in the College Respiratory Therapy lab. Current issues and controversies involving the field will be discussed. BILLABLE CONTACT HOURS: 5

### RSP 2230 Cardiopulmonary Structure and Function .....3 Credit Hours

**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.

**Prerequisite:** Admission to the Respiratory Therapy Program.

**Corequisite:** RSP 1220 RSP 2240

**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

The student will review in depth the normal structure and function of the cardiopulmonary systems of the human body, and the interactions between these systems. The pathology and impact of common cardiopulmonary disorders will be reviewed through class discussion, outside research projects and verbal presentations. Diagnostic and therapeutic respiratory care procedures related to monitoring of cardiopulmonary status and treatment of cardiopulmonary disorders will be briefly introduced in this course. BILLABLE CONTACT HOURS: 3

### RSP 2240 Pharmacology for Respiratory Therapy ..... 3 Credit Hours

**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.

**Prerequisite:** Admission to the Respiratory Therapy Program.

**Corequisite:** RSP 1220 RSP 2230

**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

This pharmacology course is designed to inform the respiratory therapy student about medications that are specifically delivered by respiratory care practitioners. An in-depth study of the autonomic nervous system will be covered to explain the mechanism of drug actions. Topics include: indications, modes of delivery, dosages, and adverse reactions of respiratory medications. The course will also focus on critical care pharmacology, anesthetics, and anti-infective agents. The student should gain a complete understanding of the physiological response to all the above medications and the pharmacological management of cardiopulmonary conditions. BILLABLE CONTACT HOURS: 3

### RSP 2250 Floor Therapy and Equipment Procedures .....5 Credit Hours

**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.

**Prerequisite:** RSP 1220 RSP 2230 and RSP 2240.

**Corequisite:** RSP 2260 and RSP 2290

**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

This course focuses on the operation, application, and monitoring of respiratory therapy devices used to deliver floor therapy in the clinical setting, including: medical gas therapy, aerosol and humidity therapy, aerosol drug administration, bronchial hygiene therapy, arterial puncture and expansion therapy. Equipment related to these procedures will be studied in depth, and floor therapy procedures will be practiced in the College Respiratory Therapy Lab. This course includes a weekly laboratory session. BILLABLE CONTACT HOURS: 6

### RSP 2260 Cardiopulmonary Pathophysiology ... 3 Credit Hours

**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.

**Prerequisite:** RSP 1220 RSP 2230 and RSP 2240.

**Corequisite:** RSP 2250 RSP 2290

**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

This course is a detailed study of disease affecting the cardiovascular and pulmonary systems. Emphasis is placed on a detailed study of the etiology, clinical manifestations, treatment, complications, and prognosis for most cardiopulmonary disorders. Diagnostic respiratory care procedures related to the diagnosis, monitoring and treatment of cardiopulmonary disorders will be covered in detail. BILLABLE CONTACT HOURS: 3

**RSP 2290 Diagnostic Testing ..... 3 Credit Hours****Equivalent:** RSP 2280**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.**Prerequisite:** RSP 1220 RSP 2230 and RSP 2240.**Corequisite:** RSP 2250 RSP 2260**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

The student will become familiar with techniques and equipment used for diagnosis and monitoring of patients with cardiopulmonary disorders. Emphasis is placed on acid-base balance and blood gas studies, EKG monitoring/interpretation, chest X-ray interpretation, nutrition, laboratory tests, sleep studies, bronchoscopy, capnography and pulmonary function testing/interpretation. Other related diagnostic tests are reviewed through assigned student outside research projects. BILLABLE CONTACT HOURS: 3

**RSP 2310 Critical Care Equipment and Procedures ..... 5 Credit Hours****Equivalent:** RSP 2300**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.**Prerequisite:** RSP 2250 RSP 2260 and RSP 2290.**Corequisite:** RSP 2320**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

This course focuses on the operation, application and monitoring of respiratory care procedures used in the adult critical care setting, including: artificial airways, drawing blood from arterial lines, noninvasive ventilation CPR, secretion removal, and mechanical ventilation. Equipment related to these procedures will be studied in depth, and critical care procedures will be practiced in the College Respiratory Therapy Lab. Much of this course will concentrate on familiarizing the student with adult mechanical ventilators currently being utilized in the emergency room and critical care units, including the procedures the therapist uses to set up, monitor, maintain, transport and wean the adult patient from mechanical ventilation. This course includes a weekly laboratory session. BILLABLE CONTACT HOURS: 6

**RSP 2320 Clinical Practice I ..... 4 Credit Hours****Equivalent:** RSP 2270 | RSP 2275**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.**Prerequisite:** RSP 2250 RSP 2260 and RSP 2290.**Corequisite:** RSP 2310**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

The student will gain practical experience in the hospital. Areas of concentration will include: patient care arts, patient assessment, pharmacology of aerosol drugs, chart review, therapy documentation, infection control procedures, medical gas therapy, aerosol and humidity therapy, aerosol drug administration, bronchial hygiene therapy, expansion therapy, and cardiopulmonary resuscitation. Students will also complete a variety of case studies, critical thinking and patient care plan assignments as well as competency assessment of related clinical skills. A minimum of 12 hours per week of supervised clinical practice in a variety of settings will be included. BILLABLE CONTACT HOURS: 7

**RSP 2326 Clinical Practice II ..... 6 Credit Hours****ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.**Prerequisite:** RSP 2310 and RSP 2320.**Corequisite:** RSP 2350**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

The student will continue to gain experience in floor therapy procedures and will be exposed to respiratory care procedures of a more complex nature, including: adult critical care procedures (artificial airway insertion/monitoring/care, critical care CPR, arterial puncture and blood gas analysis, drawing blood from arterial lines, suctioning and others) emergency room care and adult mechanical ventilation (patient assessment, ventilator selection/preparation, initiation of ventilation, vent-patient monitoring, vent troubleshooting and vent weaning). Students will continue to complete related case studies, critical thinking and care plan worksheets and competency assessment of clinical skills. In addition, students will complete a variety of rotations in hospital or home care sites. A minimum of 24 hours per week of supervised clinical practice will be included. BILLABLE CONTACT HOURS: 9

**RSP 2350 Advanced Clinical Applications ..... 5 Credit Hours****ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.**Prerequisite:** RSP 2310 and RSP 2320.**Corequisite:** RSP 2326**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

This course focuses on the operation, application and monitoring of respiratory care procedures used in the neonatal and pediatric critical care setting, including: artificial airways, CPR, secretion removal, artificial surfactant administration and mechanical ventilation. Equipment related to these procedures will be studied in depth and critical care procedures will be practiced in the College Respiratory Therapy Lab. Advanced hemodynamic interpretation and monitoring, HFV, Nitric Oxide, ECMO and literature review of published research topics will be included. This course includes a weekly laboratory session. BILLABLE CONTACT HOURS: 6

**RSP 2360 Clinical Practice III ..... 6 Credit Hours****ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.**Prerequisite:** RSP 2326 and RSP 2350.**Corequisite:** RSP 2370**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

The student will continue to gain experience in performing respiratory therapy functions of a more advanced nature including: emergency care, adult/pediatric/neonatal mechanical ventilation and critical care and advanced monitoring techniques. Participation in patient care as a member of the medical team will be emphasized. A minimum of 24 hours per week of supervised clinical experience in hospital or clinic settings will be provided. BILLABLE CONTACT HOURS: 9

**RSP 2370 Registry Review Seminar .....2 Credit Hours**

**ESL Placement Level:** For English-as-a-Second-Language (ESL) students, placement in ESL 2520.

**Prerequisite:** RSP 2326 and RSP 2350.

**Corequisite:** RSP 2360

**Note:** Prerequisites for courses in this department are not automatically waived for College Guest students and students with a bachelor's degree or higher from a U.S. institution.

This course provides advanced practitioner students with an opportunity to review and demonstrates their summative mastery of the cognitive areas relating to the national board examinations. Students' assessment skills will be needed to recommend diagnostic tests, special procedures and modification of therapy. BILLABLE CONTACT HOURS: 2