TheARC Respiratory Care Program

The program is accredited by the Commission on Accreditation of Allied Health Programs. Successful completion of the program qualifies the graduate to apply for the credentialing examinations offered through the State of California and the National Board for Respiratory Care. The student is responsible for providing laboratory coats, laboratory fees, malpractice insurance and transportation to off-campus facilities. There may be morning, afternoon or evening clinical experiences in a variety of clinical settings with limited notice.

NOTE: In accordance with Article 5 of the Respiratory Care Practice Act, a person convicted of any offense other than a minor traffic violation, may not qualify to be licensed as a Respiratory Care Practitioner. Questions regarding this matter must be directed to the Respiratory Care Board, Board of Medical Quality Assurance.

Respiratory Care Degree

This degree is designed to prepare licensed respiratory care practitioners. It focuses on the treatment and management of patients with conditions affecting the cardiopulmonary system. Courses include physical assessment, medical gas administration, life-supporting mechanical ventilation, pharmacology, neonatal/pediatric therapy, and specialized cardiopulmonary procedures.

NOTE: All degree major courses require a grade of “C” or better.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Recommend competent treatment plans based upon auditory, tactile and visual feedback.
- Implement appropriate therapy to patients within accepted standards of care in a timely fashion.
- Report assessment findings, treatment plans and recommendations for care to appropriate health care professionals.
- Document patient care in accordance with local, regional and national standards in a timely manner.
- Comply with ethical standards established by state licensing board.

Career Opportunities

The outlook for respiratory care practitioners is expected to grow in the coming years due to the large increase in the elderly population, the impact of environmental problems that have contributed to breathing problems, and technological advances that are prolonging the lives of those suffering from heart attack, cancer and accidents, as well as premature babies. In addition, an increasing number of practitioners have branched out into alternate care settings such as nursing homes, physicians’ offices, home health agencies, specialized care hospitals, medical equipment supply companies, and patients’ homes.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Graduation from an accredited high school in the United States or successful completion of the General Educational Development (GED) Test or California High School Proficiency Examination (CHSPE) as defined by the current requirements of the State of California and National Board for Respiratory Care.
- BIOL 430 with a grade of “C” or better.
- MATH 100 or equivalent with a grade of “C” or better.
- Minimum cumulative college GPA of 2.0.
- A Curriculum Planning Summary Sheet dated within the semester the enrollment packet is submitted.

Respiratory Care Program - Spring 2010

The ARC Respiratory Care Program is updating the curriculum beginning with the Spring 2010 class. The curriculum changes were designed to support better student success and advanced preparation for clinical practice. In additions, the changes will comply with changing industry and accreditation standards.

Students who wish to be considered for the Spring 2010 new Respiratory Care Program should consult the Health Science Division Office website and the ARC Counseling Office for changes in the pre-enrollment requirements.

Enrollment Process

Eligible students are selected for the program according to the following steps:

- Applications to the program may be obtained at the Health and Education Building, Room 770 or online at www.arclosrrios.edu/edhealth/respcaare.html, and are due in the Health and Education office no later than 4:00 p.m. the second Friday in October.
- Selection is based on a computerized random selection process from among the qualified applicants.
- Only students who meet the pre-enrollment requirements and follow the pre-enrollment procedures will be considered for the program.
- The student accepted into the Respiratory Care program is required to have a physical examination, inoculations, drug screen, background check, and malpractice insurance.

Requirements for Degree

73-74 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIOL 430</td>
<td>Anatomy and Physiology</td>
<td>5</td>
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<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISC 300</td>
<td>Computer Familiarization</td>
<td>1</td>
</tr>
<tr>
<td>ENGWR 300</td>
<td>College Composition (3)</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or ESLW 340</td>
<td>Advanced Composition (4)</td>
<td></td>
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</tbody>
</table>
MATH 100  Elementary Algebra ........................................5
PHYS 310  Conceptual Physics ........................................3
PSYC 300  General Principles .........................................3
RC 110  Introduction to Health Care for the Respiratory Care Practitioner .........................................................2
RC 111  Applied Cardiopulmonary Physiology ................3
RC 112  Patient Assessment - Introduction to Clinical Problem Solving .................................................................2
RC 113  Patient Assessment Techniques ..........................2
RC 120  Pharmacology for Respiratory Care .....................3
RC 121  Cardiopulmonary Pathophysiology ......................3
RC 122  Theory and Techniques I - Fundamental Respiratory Care .................................................................2
RC 123  Fundamental Respiratory Care Techniques ............2
RC 130  Theory II - Adult Critical Care Techniques/Special Procedures ...............................................................3
RC 131  Techniques II -Adult Critical Care Techniques/Special Procedures ............................................................1
RC 132  Clinical Application: Adult Critical Care Techniques/ Special Procedures .........................................................6
RC 140  Theory III - Respiratory Care in Specialty Areas ........3
RC 141  Techniques III - Neonatal/Pediatric and Cardio- Pulmonary Rehabilitation Techniques ..................................1
RC 142  Clinical Application: Neonatal/Pediatric and Cardiopulmonary Rehabilitation Techniques ....................6

**Associate Degree Requirements:** The Respiratory Care Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

**RC 110  Introduction to Health Care for the Respiratory Care Practitioner 2 Units**
*Prerequisite: Acceptance into the Respiratory Care Program.*
*Corequisite: RC 111 and 112.*
*Hours: 36 hours LEC.*
The course describes the organizational context of the U.S. health care system as it relates to the role and function of respiratory care practitioners. It focuses on the skills of communication and human interaction within the context of the modern health care delivery system. It also presents the ethical, legal, interprofessional and economic aspects of health care. It also identifies health care related safety techniques including universal precautions and infection control. Critical thinking processes are presented as a basis for comprehension of course content.

**RC 111  Applied Cardiopulmonary Physiology 3 Units**
*Prerequisite: Acceptance into the Respiratory Care Program.*
*Corequisite: RC 110 and 112; BIOL 431.*
*Hours: 54 hour LEC.*
The course provides a foundation for the development of critical thinking skills necessary for the clinical practice of respiratory care. It gives a comprehensive overview of the cardiopulmonary system with emphasis on applied physiology expanding on the concepts introduced in anatomy and physiology, and provides in depth information on ventilation, gas transport and acid-base balance, including interpretation of data and the relationship of physiological principles to patient care.

**RC 112  Patient Assessment - Introduction to Clinical Problem Solving 2 Units**
*Prerequisite: Acceptance into the Respiratory Care Program.*
*Corequisite: RC 110, 111, and 113.*
*Hours: 36 hours LEC.*
The course presents a clinically oriented guide to assessment of the patient's cardiopulmonary system with emphasis on its application to respiratory care procedures. It also describes assessment procedures, equipment, and the interpretation of results arising from the gathered information.

**RC 113  Patient Assessment Techniques 2 Units**
*Prerequisite: Acceptance into Respiratory Care program.*
*Corequisite: RC 110, 111, and 112.*
*Hours: 108 hours LAB.*
This course consists of laboratory introduction of skills and procedures as well as supervised clinical experience, with emphasis on the application of theories and techniques related to assessment of patients with cardiopulmonary illness. It integrates the patient assessment procedures, manipulation, examination, plus assessment of equipment, with the evaluation, interpretation, and application of patient data in the clinical setting.

**RC 120  Pharmacology for Respiratory Care 3 Units**
*Prerequisite: RC 110, 111, 112, and 113 with a grade of “C” or better.*
*Corequisite: RC 121, 122, 123.*
*Hours: 54 hours LEC.*
The course covers the concepts and principles of pharmacology required in the practice of respiratory care, including medications, actions, dosages, routes of administration and adverse reactions. It also includes patient education of medication delivery devices, patient monitoring devices, utilization techniques, and the standards for therapeutic efficacy in relation to asthma, chronic obstructive pulmonary disease and smoking cessation.

**RC 121  Cardiopulmonary Pathophysiology 3 Units**
*Prerequisite: RC 110, 111, 112 with a grade of “C” or better.*
*Corequisite: RC 120 and 122.*
*Hours: 54 hours LEC.*
This course covers the manifestations of cardiopulmonary and related diseases encountered in respiratory care practice. It presents the causes for and general treatment, as well as respiratory care treatment of these diseases. It also includes the evaluation for possible diagnoses, treatment approaches and evaluation of patient response to treatment for possible modification.

**RC 122  Theory and Techniques I - Fundamental Respiratory Care 3 Units**
*Prerequisite: RC 110, 111, 112, and 113 with a grade of “C” or better.*
*Corequisite: RC 120, 121, and 123; and PHYS 310.*
*Hours: 54 hours LEC.*
The course presents the principles of medical gas delivery devices; humidity, aerosol and hyperinflation therapies and chest physiotherapy. It also presents the application, patient assessment, patient monitoring, and the evaluation of the efficacy of medical gas, humidity, aerosol and hyperinflation therapies and chest physiotherapy.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 123</td>
<td>Fundamental Respiratory Care Techniques</td>
<td>2</td>
<td>Prerequisite: RC 110, 111, 112, and 113 with grade of &quot;C&quot; or better.</td>
<td>Corequisite: RC 120, 121, 122.</td>
<td>108</td>
<td>This course consists of laboratory introduction of skills and procedures as well as supervised clinical experience, with emphasis on the application of theories and techniques related to fundamental respiratory care procedures. Focus is on the application of skills learned in previous respiratory care courses while developing new skills related to medical gas, humidity, aerosol medication administration, hyperinflation therapies and chest physiotherapy.</td>
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<tr>
<td>RC 130</td>
<td>Theory II - Adult Critical Care Techniques/Special Procedures</td>
<td>3</td>
<td>Prerequisite: RC 120, 121, 122 with a grade of &quot;C&quot; or better.</td>
<td>Corequisite: RC 131.</td>
<td>54</td>
<td>This course presents the principles of airway management, mechanical ventilatory support of the adult, hemodynamic monitoring, metabolic assessment, hyperbaric oxygen therapy and the transport of the mechanically ventilated adult. It presents advanced cardiopulmonary life support techniques.</td>
</tr>
<tr>
<td>RC 131</td>
<td>Techniques II - Adult Critical Care Techniques/Special Procedures</td>
<td>1</td>
<td>Prerequisite: RC 120, 121, 122, and 123 with grades of &quot;C&quot; or better.</td>
<td>Corequisite: RC 130 and 132.</td>
<td>54</td>
<td>This course provides in class laboratory practice in airway management, including intubation, suctioning and bronchoscopy to adult patients in critical care units. It further provides in class laboratory practice in non-invasive and invasive mechanical ventilatory support, including ventilator settings/adjustments, monitoring, adjusting ventilators to improve oxygenation and/or ventilation and discontinuance from ventilatory support on adult patients in critical care units.</td>
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<tr>
<td>RC 132</td>
<td>Clinical Application: Adult Critical Care Techniques/Special Procedures</td>
<td>6</td>
<td>Prerequisite: RC 120, 121, 122, and 123 with grades of &quot;C&quot; or better.</td>
<td>Corequisite: RC 130 and 131.</td>
<td>324</td>
<td>This course provides clinical practice in the application of airway management, including intubation, suctioning and bronchoscopy to adult patients in critical care units. It further provides clinical practice in application of non-invasive and invasive mechanical ventilatory support, including ventilator settings/adjustments, monitoring, adjusting ventilators to improve oxygenation and/or ventilation and discontinuance from ventilatory support on adult patients in critical care units.</td>
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<tr>
<td>RC 140</td>
<td>Theory III - Respiratory Care in Specialty Areas</td>
<td>3</td>
<td>Prerequisite: RC 130, 131 with a grade of &quot;C&quot; or better; current certification of advanced cardiopulmonary life support.</td>
<td>Corequisite: RC 141.</td>
<td>54</td>
<td>This course presents the principles of neonatal/pediatric respiratory care, including basic and advanced techniques as well as transport of mechanically ventilated newborns and children. It also presents the principles underlying cardiopulmonary rehabilitation, including patient assessment, stress testing, reconditioning techniques, psychosocial aspects specific to the home setting and long term ventilator care.</td>
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<tr>
<td>RC 141</td>
<td>Techniques III - Neonatal/Pediatric and Cardiopulmonary Rehabilitation Techniques</td>
<td>1</td>
<td>Prerequisite: RC 130 and 131 with grades of &quot;C&quot; or better.</td>
<td>Corequisite: RC 140 and 142.</td>
<td>54</td>
<td>This course provides in class laboratory practice in medical gas, humidity/aerosol, hyperinflation and bronchial hygiene therapies, airway management and non-invasive and invasive mechanical ventilatory support as applied to neonatal and pediatric patients in specialized critical care units. It also provides practice in pulmonary rehabilitation techniques, cardiopulmonary stress testing, sleep studies and respiratory care techniques in the home setting.</td>
</tr>
<tr>
<td>RC 142</td>
<td>Clinical Application: Neonatal/Pediatric and Cardiopulmonary Rehabilitation Techniques</td>
<td>6</td>
<td>Prerequisite: RC 130, 131, and 132 with grades of &quot;C&quot; or better.</td>
<td>Corequisite: RC 140 and 141.</td>
<td>324</td>
<td>This course provides clinical practice in the application of medical gas, humidity/aerosol, hyperinflation and bronchial hygiene therapies, airway management and non-invasive and invasive mechanical ventilatory support as applied to neonatal and pediatric patients in specialized critical care units. It further provides practice in the application of pulmonary rehabilitation techniques, cardiopulmonary stress testing, sleep studies and respiratory care techniques in the home setting. Field trips are required.</td>
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