

# Respiratory Care Technology (RC)

## Respiratory Care Technology (RC)

Cincinnati State offers a comprehensive program in Respiratory Care Technology. Students develop a wide range of clinical skills in traditional and nontraditional roles and gain proficiency in all areas of respiratory care, such as bedside pulmonary care, life-support systems management, diagnostic testing, pulmonary rehabilitation, and long-term care. Students practice these skills with a variety of other health care professionals in the diagnosis, treatment, and education of the patient.

The technical portion of the program is completed in five semesters (20 months) and includes unpaid clinical experiences. Students are eligible to obtain a limited permit to practice as a Respiratory Therapist after successful completion of the first clinical course. Graduates earn an Associate of Applied Science degree.

The Cincinnati State Respiratory Care program is part of a consortium that includes the University of Cincinnati Clermont campus.

The program is fully accredited by the Commission on Accreditation for Respiratory Care (CoARC) 1248 Harwood Road, Bedford, Texas, 76021, phone: (817) 282-2835, [www.coarc.com](http://www.coarc.com) (<http://www.coarc.com>) .

Program graduates may apply for the credentialing exams administered by the National Board for Respiratory Care (NBRC). Candidates who pass the written and clinical simulation exams are recognized nationally as a Registered Respiratory Therapist (RRT). Eligibility for an Ohio permit as a Respiratory Therapist requires the RRT credentialing.

## Respiratory Care Technology (RC)

All degree-seeking students must complete a First Year Experience (FYE) course as part of the first 12 credit hours taken at Cincinnati State.

**Program Prerequisite:** PHY 110 Health Physics or high school physics within the last seven years.

Semester 1	Lec	Lab	Credits
RT 100	Introduction to Respiratory Care		1
RT 101	Respiratory Care Science 1		4
RT 172	Cardiopulmonary Anatomy and Physiology		4
BIO 151	Anatomy and Physiology 1		4
ENG 101	English Composition 1		3
<b>Semester 2</b>			
RT 102	Respiratory Care Science 2		4
RT 111	Respiratory Care Clinical Practice 1		2
RT 173	Cardiopulmonary Disease		4
BIO 152	Anatomy and Physiology 2		4
BIO 220	Microbiology		3
<b>Semester 3</b>			
RT 103	Mechanical Ventilation		4
RT 112	Respiratory Care Clinical Practice 2		2
BIO 230	Pharmacology		3
ENG 102	English Composition 2: Contemporary Issues		3
COMM XXX Communication Elective			3
<b>Semester 4</b>			
RT 201	Advanced Respiratory Critical Care		3
RT 202	Specialties in Respiratory Care		2

RT 211	Respiratory Clinical Practice 3	2
BIO 240	Pathophysiology	3
MAT 1XX Mathematics Elective		3
XXX XXX Social Science Elective		3
<b>Semester 5</b>		
RT 203	Respiratory Care Seminar	2
RT 204	Respiratory Care Capstone	1
RT 212	Respiratory Clinical Practice 4	2
XXX XXX Humanities Elective		3
Total Credits:	0	72

## Electives

### Communication Elective

COMM 105	Interpersonal Communication	3
COMM 110	Public Speaking	3

### Mathematics Elective

MAT 131	Statistics 1	3
MAT 151	College Algebra	4

### Social Science Elective

Any ECO, POL, LBR, PSY, SOC		3
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### Humanities Elective

Any ART, HST, LIT, MUS		3
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## Courses

### RT 100 Introduction to Respiratory Care

**1 Credit. 1 Lecture Hour. 0 Lab Hour.**

A course on fundamentals in the field of Respiratory Care. Topics include: body mechanics; medical abbreviations; safety; professional skills, responsibilities, and ethics; and medical literature searches.

Prerequisites: Respiratory Care Program Chair consent

View Sections ([http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course\\_number=100subject\\_code=RT](http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course_number=100subject_code=RT))

### RT 101 Respiratory Care Science 1

**4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A course on fundamentals of pulmonary patient care. Topics include: patient assessment; appropriate administration of oxygen, humidity, and aerosol therapies; hospital safety; infection control; and medical ethics.

Prerequisites: Respiratory Care Program Chair consent

View Sections ([http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course\\_number=101subject\\_code=RT](http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course_number=101subject_code=RT))

### RT 102 Respiratory Care Science 2

**4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A continuation of RT 101. Topics include: maintaining artificial airways, cleaning and sterilizing equipment, aerosol therapy, respiratory care medications, volume expansion devices, secretion mobilization, and interpreting chest radiography related to the care of the pulmonary patient.

Prerequisites: RT 100, RT 101, RT 172 (minimum grade C for all)

View Sections ([http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course\\_number=102subject\\_code=RT](http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course_number=102subject_code=RT))

### RT 103 Mechanical Ventilation

**4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A course on infant and adult mechanical ventilation. Topics include: indications, assessment, application, monitoring, and modes of mechanical ventilation.

Prerequisites: RT 102, RT 111, RT 173 (minimum grade C for all)

View Sections ([http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course\\_number=103subject\\_code=RT](http://webapps.cincinnatiatstate.edu/wwwTools/MCL/default.aspx?course_number=103subject_code=RT))

**RT 111 Respiratory Care Clinical Practice 1****2 Credits. 1 Lecture Hour. 8 Lab Hours.**

Students practice using respiratory care skills in the hospital environment. Topics include: patient assessment and positioning; charting procedures; applying oxygen therapy, humidity therapy, and aerosol therapy; incentive spirometry; bronchial hygiene; airway clearance procedures; and cleaning and sterilization procedures.

Prerequisites: RT 100, RT 101, RT 172 (minimum grade C for all)

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=111subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=111subject_code=RT))

**RT 112 Respiratory Care Clinical Practice 2****2 Credits. 1 Lecture Hour. 16 Lab Hours.**

Students practice respiratory care skills and responsibilities in a hospital setting. Topics include: medicated aerosols, lung expansion devices, suctioning, secretion mobilization, and initiating and maintaining artificial airways.

Prerequisites: RT 102, RT 111, RT 173 (minimum grade C for all)

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=112subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=112subject_code=RT))

**RT 172 Cardiopulmonary Anatomy and Physiology****4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A course on the anatomy and physiology of the respiratory and circulatory systems. Topics include: ventilation, diffusion, O<sub>2</sub> and CO<sub>2</sub> transport, acid/base balance, and fundamentals of ECG interpretation

Prerequisites: Respiratory Care Program Chair consent

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=172subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=172subject_code=RT))

**RT 173 Cardiopulmonary Disease****4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A course on cardiopulmonary diseases and the diagnosis, treatment, and prognosis of each. Topics include: common pulmonary diseases and conditions, pulmonary function testing and interpretation, and use of testing in diagnosing pulmonary diseases.

Prerequisites: RT 100, RT 101, RT 172 (minimum grade C for all)

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=173subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=173subject_code=RT))

**RT 198 First Year Special Topics in Respiratory Care****1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A course on selected topics related to Respiratory Care, which gives students opportunities to study information not currently covered in other courses.

Grades issued are A, B, C, D, or F.

Prerequisites: None

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=198subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=198subject_code=RT))

**RT 199 First Year Independent Project in Respiratory Care****1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A project related to Respiratory Care that is completed by one or more students to meet specific educational goals. Projects must have prior approval and supervision by Respiratory Care faculty. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: None

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=199subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=199subject_code=RT))

**RT 201 Advanced Respiratory Critical Care****3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on caring for the critically ill respiratory care patient. Topics include: assessment, medications, and hemodynamic monitoring used during treatment.

Prerequisites: RT 103, RT 112 (minimum grade C for both)

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=201subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=201subject_code=RT))

**RT 202 Specialties in Respiratory Care****2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on specialized areas of respiratory care and emerging roles for the respiratory therapist. Topics include: bronchoscopy, tracheostomy, burn care, chest tubes, metabolic testing, pulmonary rehabilitation, capnography, and other specialty areas.

Prerequisites: RT 103, RT 112 (minimum grade C for both)

View Sections ([http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course\\_number=202subject\\_code=RT](http://webapps.cincinnati.state.edu/wwwTools/MCL/default.aspx?course_number=202subject_code=RT))

**RT 203 Respiratory Care Seminar**

**2 Credits. 1 Lecture Hour. 2 Lab Hours.**

Students review theory and practice in respiratory care to prepare for national certification examinations. Topics include: ACLS, PALS, IV application, and test taking skills.

Prerequisites: RT 201, RT 202, RT 211 (minimum grade C for all)

View Sections ([http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course\\_number=203subject\\_code=RT](http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course_number=203subject_code=RT))

**RT 204 Respiratory Care Capstone**

**1 Credit. 0 Lecture Hour. 2 Lab Hours.**

Students complete a research project in an approved specialty area in the field of respiratory care.

Prerequisites: RT 201, RT 202, RT 211 (minimum grade C for all)

View Sections ([http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course\\_number=204subject\\_code=RT](http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course_number=204subject_code=RT))

**RT 211 Respiratory Clinical Practice 3**

**2 Credits. 1 Lecture Hour. 16 Lab Hours.**

Students practice skills and responsibilities for care of ventilator patients in the intensive care unit of a hospital. Topics include: mechanical ventilation, airway care, and an oral exam on respiratory equipment.

Prerequisites: RT 103, RT 112 (minimum grade C for both)

View Sections ([http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course\\_number=211subject\\_code=RT](http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course_number=211subject_code=RT))

**RT 212 Respiratory Clinical Practice 4**

**2 Credits. 1 Lecture Hour. 16 Lab Hours.**

Students practice respiratory care skills and responsibilities in multiple healthcare settings. Clinical rotations include: newborn intensive care, hemodynamic monitoring, vascular testing, burn care, extended care facilities, homecare, hyperbaric oxygen administration, pulmonary rehabilitation, pediatric pulmonary function testing, and critical care.

Prerequisites: RT 201, RT 202, RT 211 (minimum grade C for all)

View Sections ([http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course\\_number=212subject\\_code=RT](http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course_number=212subject_code=RT))

**RT 298 Second Year Special Topics in Respiratory Care**

**1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A course on selected topics related to Respiratory Care, which gives students opportunities to study information not currently covered in other courses.

Grades issued are A, B, C, D, or F.

Prerequisites: None

View Sections ([http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course\\_number=298subject\\_code=RT](http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course_number=298subject_code=RT))

**RT 299 Second Year Independent Project in Respiratory Care**

**1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A project related to Respiratory Care that is completed by one or more students to meet specific educational goals. Projects must have prior approval and supervision by Respiratory Care faculty. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: None

View Sections ([http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course\\_number=299subject\\_code=RT](http://webapps.cincinnatistate.edu/wwwTools/MCL/default.aspx?course_number=299subject_code=RT))