



## Course Number and Title: RCT 232 Respiratory Care Procedures II

**Campus Location:**

Georgetown, Wilmington

**Effective Date:**

2021-51

**Prerequisite:**

RCT 231

**Co-Requisites:**

RCT 210, RCT 252

**Course Credits and Hours:**

7.00 credits

6.00 lecture hours/week

3.00 lab hours/week

**Course Description:**

This course covers the administration of more advanced respiratory care techniques. Topics include artificial airways and mechanical ventilation.

**Required Text(s):**

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

**Additional Materials:**

Instructor handouts

All program and policy manuals/handbooks

**Schedule Type:**

Classroom Course

**Disclaimer:**

None

**Core Course Performance Objectives (CCPOs):**

1. Demonstrate cardiopulmonary resuscitation (CPR) according to the standards of the American Heart Association. (CCC 1, 2; PGC 1, 2)
2. Demonstrate use of artificial airways, including the rationale, clinical implementation, and devices used. (CCC 1, 2; PGC 1, 2)
3. Demonstrate insertion and maintenance of artificial airways, and explain the rationale, clinical implementation, discontinuance, and devices used. (CCC 1, 2; PGC 1, 2)
4. Demonstrate use of manual resuscitators, and explain the rationale for use, clinical implementation, and devices used. (CCC 1, 2; PGC 1, 2)
5. Demonstrate mechanical ventilation, and explain the rationale, clinical implementation, and devices used. (CCC 1, 2, 6; PGC 1, 2)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

**Measurable Performance Objectives (MPOs):**

Upon completion of this course, the student will:

1. Demonstrate cardiopulmonary resuscitation (CPR) according to the standards of the American Heart Association.
  1. Successfully perform CPR techniques involved in simulation laboratory scenarios.
2. Demonstrate use of artificial airways, including the rationale, clinical implementation, and devices used.
  1. Explain common etiologies and clinical manifestations of upper airway obstruction.
  2. Explain the importance of and demonstrate techniques for maintaining a patent airway.
  3. Compile and explain the indications, goals, hazards, means of evaluating effectiveness, and proper insertion technique for equipment aimed at maintaining a patent airway.
  4. Define *artificial airway*.
  5. Describe and differentiate among artificial airways and adjunctive equipment for maintaining a patent airway.
  6. Examine the regulations set by the American National Standards Institute with regard to the construction of artificial airways.
3. Demonstrate insertion and maintenance of artificial airways, and explain the rationale, clinical implementation, discontinuance, and devices used.
  1. Explain indications, goals, hazards, means of evaluating effectiveness, and proper technique for tracheal aspiration.
  2. Describe and differentiate among equipment used for tracheal aspiration.
  3. Describe the purpose of and demonstrate the technique for inflation of an artificial airway cuff.
  4. Explain hazards associated with inflation of an artificial airway cuff and techniques to avoid or minimize these hazards.
  5. Explain the strategy for dealing with a malfunctioning artificial airway.
  6. Outline the indications, goals, hazards, means of evaluation of effectiveness, and proper technique for removal of an artificial airway.
  7. Explain the predisposing, decisive, and adjunctive factors that increase a patient's risk of post extubation laryngeal and/or tracheal complications.
  8. Describe and explain the pathophysiologic alterations, clinical manifestations, and proper treatment for laryngeal and/or tracheal complications post extubation.
4. Demonstrate use of manual resuscitators, and explain the rationale for use, clinical implementation, and devices used.
  1. Describe the main components of a manual resuscitator.
  2. Differentiate among manual resuscitators in terms of their capabilities and clinical usefulness.
  3. Given a clinical scenario, formulate a method to:
    1. Choose the optimum manual resuscitator
    2. Verify proper function of the manual resuscitator
    3. Trouble shoot and/or correct a malfunction
    4. Describe proper technique for manual ventilation
5. Demonstrate mechanical ventilation and explain the rationale, clinical implementation, and devices used.
  1. Describe the theoretical concepts and principles pertaining to mechanical ventilation.
  2. Explain the goals, hazards, and effectiveness of mechanical ventilation.
  3. Differentiate and describe the capabilities, limitations, and clinical usefulness of mechanical ventilation devices.
  4. Describe the evaluation tools and techniques relating to the administration and evaluation of mechanical ventilation.
  5. Compile the essential information required to address goals, hazards, and effectiveness of mechanical ventilation.
  6. Given a clinical scenario involving mechanical ventilation, formulate a treatment plan to:
    1. Gather appropriate information pertaining to mechanical ventilation
    2. Employ patient assessment modalities
    3. Identify goals, hazards, and effectiveness of therapy
    4. Select equipment for the optimal delivery of patient care
    5. Demonstrate effective communication skills and properly instruct a patient
    6. Coach a patient to perform various assessment maneuvers
    7. Modify care in response to changing patient conditions

**Evaluation Criteria/Policies:**

The grade will be determined using the Delaware Tech grading system:

90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
0	-	69	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

**Final Course Grade:**

Calculated using the following weighted average

Evaluation Measure	Percentage of final grade
Summative: Unit Exams (4) (equally weighted)	65%
Formative: Lab Competency Check offs (equally weighted)	15%
Summative: Research paper ( Mechanical ventilation techniques and devises used)	10%
Formative: Quizzes (equally weighted)	10%
TOTAL	100%

**Core Curriculum Competencies (CCCs are the competencies every graduate will develop):**

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

**Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):**

**AHTAASRCT**

1. Apply theoretical information that leads to an appropriate action in the application or delivery of respiratory care procedures.
2. Perform technical skills in the implementation of respiratory care procedures within a plan of care.
3. Practice behaviors that are consistent with professional and employer expectations/requirements of their employees.

**Disabilities Support Statement:**

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.