

# 2021-2022 TTC Catalog - Respiratory Care (RES)

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## RES 110 - Cardiopulmonary Science I

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### Course Offered

Summer

This course focuses on assessment, treatment and evaluation of patients with cardiopulmonary disease.

### Corequisite

RES 121

**Grade Type:** Letter Grade

**Restrictions:** Restricted to RES majors.

**Division:** Health Sciences

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## RES 111 - Pathophysiology

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### Course Offered

Spring

This course is a study of the general principles and analyses of normal and diseased states.

### Prerequisite

RES 110

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## RES 112 - Cardiopulmonary Pathophysiology

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### Course Offered

Spring

This course is a study of advanced principles and analyses of normal and diseased states of the cardiopulmonary system.

**Prerequisite**

RES 111

**Grade Type:** Letter Grade

**Division:** Health Sciences

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**RES 121 - Respiratory Skills I**

**Lec:** 3.5 **Lab:** 1.5 **Credit:** 4.0

**Course Offered**

Summer

This course includes a study of basic respiratory therapy procedures and their administration. This course presents the theory of equipment and procedures for patients requiring general cardiopulmonary care. Emphasis is on medical gas therapy, aerosol and humidity therapy.

**Corequisite**

RES 110

**Grade Type:** Letter Grade

**Division:** Health Sciences

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**RES 131 - Respiratory Skills II**

**Lec:** 3.5 **Lab:** 1.5 **Credit:** 4.0

**Course Offered**

Fall

This course is a study of selected respiratory care procedures and applications. Emphasis is on chest physics therapy, suctioning, airway care and specific procedures regarding airway clearance and maintenance. Lab data, chest tubes, chest X-rays and arterial blood gasses are included. Chest tube drainage systems and chest X-ray interpretation also are included.

**Prerequisite**

RES 121

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 140 - Introduction to Mechanical Ventilation**

**Lec:** 1.5 **Lab:** 1.5 **Credit:** 2.0

### **Course Offered**

Spring

This course focuses on theory and techniques used for mechanical ventilation. The student is introduced to protocols and procedures for adjusting mechanical ventilation.

### **Prerequisite**

RES 131

and

RES 246

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 142 - Basic Pediatric Care**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Fall

Summer

This course includes an introduction to basic pediatric and neonatal care.

### **Prerequisite**

RES 243

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 150 - Clinical Applications I**

**Lec:** 0 **Lab:** 12.0 **Credit:** 4.0

### **Course Offered**

Spring

This course is a study of entry-level clinical procedures in the hospital setting.

### **Corequisite**

RES 111

and

RES 140

and

RES 243

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 152 - Clinical Applications II**

**Lec:** 0 **Lab:** 9.0 **Credit:** 3.0

### **Course Offered**

Summer

This course includes practice of respiratory care procedures in the hospital setting. An introduction to the critical care setting with emphasis on intensive respiratory care skills, maintenance of artificial airways, continuous mechanical ventilation and physiologic monitoring is provided.

### **Prerequisite**

RES 150

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 205 - Neonatal Respiratory Care**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Fall

This course focuses on cardiopulmonary physiology, pathology and management of the newborn patient. Neonatal assessment, therapeutic procedures, monitoring, mechanical ventilation and clinical issues in neonatal care are included.

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 210 - Cardiopulmonary Science II**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Summer

This course is a study of cardiopulmonary, renal and neuromuscular physiology and pathophysiology. Emphasis is on current therapeutic modalities in the care of patients with cardiopulmonary diseases. Etiologic, symptomatic, diagnostic and prognostic facets of each disease are presented.

**Prerequisite**

RES 150

and

RES 243

and

RES 247

**Corequisite**

RES 152

and

RES 220

**Grade Type:** Letter Grade

**Division:** Health Sciences

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**RES 220 - Hemodynamic Monitoring**

**Lec:** 1.0 **Lab:** 0 **Credit:** 1.0

**Course Offered**

Summer

This course is a study of basic hemodynamic monitoring. Included is a study of blood flow utilizing pulmonary artery and central venous pressure catheters.

**Corequisite**

RES 152

and

RES 210

**Grade Type:** Letter Grade

**Division:** Health Sciences

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**RES 235 - Respiratory Diagnostics**

**Lec:** 3.5 **Lab:** 1.5 **Credit:** 4.0

**Course Offered**

Fall

This course is a study of diagnostic and therapeutic procedures. Methods, equipment, techniques and interpretation of pulmonary function, exercise testing and hemodynamic monitoring are discussed. Other topics include electrocardiography and hyperbaric oxygenation.

**Prerequisite**

RES 142

and

RES 152

and

RES 210

and

RES 220

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 243 - Mechanical Ventilation II**

**Lec:** 1.5 **Lab:** 1.5 **Credit:** 2.0

**Course Offered**

Spring

This course incorporates advanced theory of mechanical ventilation. Liberation from mechanical ventilation is explored.

**Prerequisite**

RES 111

and

RES 140

and

RES 247

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 246 - Respiratory Pharmacology**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

**Course Offered**

Fall

This course includes a study of pharmacologic agents used in cardiopulmonary care. Indications, contraindications, hazards and side effects of pharmacological agents used to treat cardiopulmonary and renal disorders are discussed. Emphasis is on agents commonly administered by the respiratory care practitioner.

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 247 - Advanced Respiratory Pharmacology**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Fall

This course covers the indications, side effects and hazards of pharmacologic agents used in the intensive care unit. Emphasis is on agents commonly administered by the respiratory care practitioner.

### **Prerequisite**

RES 246

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 249 - Comprehensive Applications**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Spring

This course includes the integration of didactic and clinical trainers in respiratory care technology. Current issues, problem-solving skills and principles of supervision with emphasis on the role of the first-line supervisor are introduced. Students take a valid written examination and clinical simulation in preparation for national examinations.

### **Prerequisite**

RES 205

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 253 - Advanced Clinical Studies I**

**Lec:** 0 **Lab:** 18.0 **Credit:** 6.0

### **Course Offered**

Fall

This course provides clinical instruction in advanced patient care practice. The student continues to refine techniques applicable to the critically ill patient with an emphasis on prolonged mechanical ventilation.

### **Prerequisite**

RES 152

**Grade Type:** Letter Grade

**Division:** Health Sciences

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## **RES 254 - Advanced Clinical Studies II**

**Lec:** 0 **Lab:** 21.0 **Credit:** 7.0

### **Course Offered**

Spring

This course includes clinical instruction in advanced patient care practice. The course offers clinical instruction in pediatric, neonatal and adult critical care. The student respiratory care practitioner is expected to function as a critical care therapist with limited supervision or instruction.

### **Prerequisite**

RES 253

**Grade Type:** Letter Grade

**Division:** Health Sciences

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