

# RESPIRATORY THERAPY (RESP TC)

## Respiratory Therapy (RESP TC) 114

### Basic Respiratory Care

Theoretical and protocol based applications of, indications for, and assessment of efficacy and patient response to basic respiratory care modalities in the cardiopulmonary compromised patient population. Includes such therapeutic modalities as: O<sub>2</sub>/gas therapy, aerosol and humidity therapy, bronchial hygiene, and hyperinflation therapy. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*Completion of ENGLISH 101, BIOLOGY 116 or BIOLOGY 226, BIOLOGY 227, CHEM 121 or higher, and MATH 118 or higher excluding MATH 140 with a C or better.*

2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 115

### Cardiopulmonary/Renal Anatomy & Physiology

Study of cardiac, pulmonary and renal structure and function with emphasis on physiology as applied to the practice of respiratory care. This includes the integrated functions of ventilation, respiration, gas transport and acid base regulation. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*Acceptance into the RESP TC program.*

3 Lecture hours. 3 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 116

### Patient Assessment

Introduction to the role of a respiratory therapist in the hospital setting as a member of a health care team. Includes professional behavior, ethics, legalities, communications, medical terminology, medical charts and cardiopulmonary assessment. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*CHEM 121; MATH 118, ENGLISH 101; BIOLOGY 116 and BIOLOGY 120.*

2 Lecture hours. 2 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 117

### Respiratory Pharmacology

Anatomy and physiology of the nervous system as applied to the pharmacodynamics of bronchodilation and the effects various drugs have on the cardiovascular and pulmonary systems is emphasized. Indications, dosages, routes of administration, contraindications, adverse effects and dose calculations will be discussed. Clinical simulation, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*CHEM 121; MATH 118, ENGLISH 101; BIOLOGY 116 and BIOLOGY 120.*

1 Lecture hours. 1 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 118

### Respiratory-Microbiology

Applied microbiology and infection control practices as related to the hospital environment and respiratory care modalities and equipment. OSHA, JCAHO infection control practices including screening tests and risk factors as well as understanding of all hospital isolation techniques is presented. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*CHEM 121; MATH 118, ENGLISH 101; BIOLOGY 116 and BIOLOGY 120.*

2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 119

### Respiratory Care Lab I

Introduction to basic equipment: design, function, troubleshooting and care of respiratory therapy devices and circuitry used to deliver therapy, humidity and aerosol therapy, bronchial hygiene, hyperinflation modalities. Professionalism, communication techniques, monitoring will be practiced in conjunction with laboratory simulated hospital procedures and situations. Basic CPR certification and all proficiency testing of clinical procedures will be done. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*CHEM 121; MATH 118, ENGLISH 101; BIOLOGY 116 and BIOLOGY 120.*

6 Laboratory hours. 3 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 127

### Clinical Practice I

Introduction to the hospital setting and the set-up, maintenance and discontinuation of oxygen; aerosol and humidity therapy; intermittent modalities to include bronchial hygiene and hyperinflation therapies. Clinical simulations, tutorials and Writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson.*

12 Laboratory hours. 3 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 129

### Clinical Practice II

Supervised clinical course with an introduction to airway management techniques, basic ventilator care techniques, pediatric respiratory care and refinement of floor therapy skills with acute patients. Clinical simulations, tutorials and writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 115, 127, 137, 139, 141 or Consent of Department Chairperson.*

12 Laboratory hours. 3 Credit Hours.

**Offered At:** MX

## Respiratory Therapy (RESP TC) 137

### Advanced Pathology & Clinical Application

Acute and chronic respiratory and cardiac pathological processes and their associated renal complications and compensations: diagnostic testing including arterial blood gasses, basic radiographic interpretation, pulmonary function studies, interpretation of laboratory studies, treatment and prevention of disease processes. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson.*

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 139**

#### **Respiratory Care Lab II**

Introduction to hospital specific policies and procedures, continuation of application and practice of respiratory care modalities, now applied to the critically ill patient. Emphasis on airway management, mechanical ventilators, circuitry, mechanical ventilation management and techniques. Comprehensive laboratory competency testing. Clinical cases presented as technical management corollaries. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson*  
4 Laboratory hours. 2 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 141**

#### **Ventilatory-Mechanics I**

Theory of basic mechanical ventilator function, methods of ventilation, modes, classification of ventilators, demonstration of basic equipment and circuitry. Airway management indications, selection of type, intubation, management assessment, hazards, extubation and troubleshooting the artificial airway will be covered. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson.*  
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 146**

#### **Ventilatory Mechanics II**

Introduction to the theory of mechanical ventilation in the adult patient. Selection of ventilator parameters, commitment, maintenance, weaning. In-depth presentation, discussion, demonstration of specific adult ventilator systems, CPAP, BiPAP circuits, practice and testing. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 115, 127, 137, 139, 141 or Consent of Department Chairperson.*  
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 200**

#### **Respiratory Care Lab III**

In depth presentation, discussion, demonstration of specific pediatric/neonatal ventilator systems, CPAP circuits, practice and testing. Continuation of adult ventilator practice, practice and integration of other critical care procedures. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 129 and RESP TC 146, or Consent of Department Chairperson.*  
4 Laboratory hours. 2 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 222**

#### **Clinical Practice III**

Supervised clinical course providing advanced airway management skills, advanced ventilator techniques and diagnostic procedures in the hospital setting. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 129 and RESP TC 146 or Consent of Department Chairperson.*  
12 Laboratory hours. 3 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 224**

#### **Clinical Practice IV**

Supervised clinical course providing advanced airway management skills, advanced adult ventilatory techniques, neonatal respiratory procedures and advanced cardiopulmonary diagnostic procedures. Exposure to alternate sites of care. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 200, 222, 225, 227, or Consent of Department Chairperson.*  
24 Laboratory hours. 4 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 225**

#### **Age Specific Care**

Introduction to age appropriate considerations of patient education, application of therapeutic modalities and manifestations of cardiopulmonary diseases throughout the human life span. This course will also address managed care, management, patient care plans and alternate sites of care. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 129 and RESP TC 146, or Consent of Department Chairperson.*  
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 227**

#### **Critical Care Services**

Advanced cardiopulmonary monitoring is presented with emphasis on ECG interpretation and hemodynamic and exhaled gas monitoring and therapeutic interventions. Chest radiograph, CT and MRI interpretation will be introduced. Pharmacological agents that affect the cardiopulmonary, renal, and acid base regulating systems; paralyzing agents, analgesics, sedatives, administration safety, dose ranges, monitoring response to and basic fluid and electrolyte balance will be presented. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 129, RESP TC 146, or Consent of Department Chairperson.*  
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 230**

#### **Advanced Cardiopulmonary Monitoring**

Case studies with PFTs, blood gases, hemodynamic profiles, ECGs and related diagnostic testing will be presented along with related pathophysiological changes of cardiopulmonary diseases. Advanced adult, pediatric, neonatal cardiopulmonary life support will be covered. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 200, 222, 225, 227, or Consent of Department Chairperson.*  
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** MX

### **Respiratory Therapy (RESP TC) 250**

#### **Cardiopulmonary Rehabilitation Home Care**

Care of patients with chronic cardiopulmonary disease in a sub-acute setting and in their homes. Long term therapeutic prescriptions, equipment selection, cleaning and asepsis of equipment in the non-acute care setting. Pulmonary rehabilitation goals and programs presented along with adjunct exercises, equipment and assistive devices. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 200, 222, 225, 227, or Consent of Department Chairperson.*  
1 Lecture hours. 1 Credit Hours.

**Offered At:** MX

**Respiratory Therapy (RESP TC) 260****Advanced Specialty Topics**

Respiratory care research topics presented, ethics and board examination preparation, computer-assisted clinical simulations along with branching logic, latent image practice and mock certification and registry examination preparation and practice. Resume, portfolio and job interview preparation will also be included. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.

*RESP TC 200, 222, 225, 227, or Consent of Department Chairperson.*

3 Lecture hours. 3 Credit Hours.

**Offered At:** MX