

**MACOMB COMMUNITY COLLEGE  
DIVISION OF ARTS AND SCIENCES**

**COURSE SYLLABUS**

- I. **DEPARTMENT/DISCIPLINE:** Health and Human Services – Respiratory Therapy
- II. **COURSE TITLE:** CLINICAL INTERNSHIP I
- III. **CATALOG DESCRIPTION:** This course introduces the student to clinical practice by providing 32 hours/week of clinical training in a hospital setting. Students perform basic respiratory therapy procedures learned in the procedures laboratory (RSPT 1090 & 1120). The laboratory portion of the course includes an eight-hour/week workshop held at the college. The lab is designed to introduce the student to the concepts and psychomotor skills necessary to care for patients on mechanical ventilators. Summer semester only. (40 contact hours per week for 8 weeks) Center Campus
- IV. **PREREQUISITES:** RSPT 1111, 1120, 1140, 1200, and 1210  
**COREQUISITES:** NONE
- V. **COURSE NUMBER:** RSPT 1260
- VI. **CREDIT HOURS:** 4 CREDITS  
**CONTACT HOURS:** 40 HOURS/WEEK
- VII. **EFFECTIVE TERM:** Summer 2007
- VIII. **STUDENT ACADEMIC OUTCOMES: Upon completion of the course, the student will:**
- A. Develop professional behaviors and attitudes that contribute to satisfactory clinical practice.
    - 1. The student will consistently arrive at the clinical site at the assigned time and prepared for the day's activities.
    - 2. The student will have the following in their possession at all times:
      - i. Results of personal physical examination.
      - ii. Verification of Hepatitis vaccine or waiver.
      - iii. Titers for communicable diseases or verification of recent vaccination.
      - iv. Result of TB skin test or chest x-ray result
      - v. BLS Healthcare Provider card.
      - vi. Drug cards for medications commonly used in clinical practice.
    - 3. The student will consistently demonstrate appropriate work appearance as outlined in the student handbook.
  
  - B. Effectively and accurately communicate, orally and through written documentation, to patients and other members of the health care team.
    - 1. Given a clinical situation, the student will consistently demonstrate proper documentation of the intervention and the patient's response.
    - 2. Given a patient interaction, the student will demonstrate appropriate communication interpersonal skills.
    - 3. Given a clinical situation, the student will indicate proper techniques to maintain privacy in the healthcare setting.

- C. Adequately demonstrate patient assessment skills through inspection, palpation, percussion and auscultation and correlate the results to the patient's pathophysiology.
1. Given a clinical situation, the student will consistently identify the proper assessment techniques required.
  2. Given a clinical situation, the student will consistently state the anticipated outcomes of the assessment intervention.
  3. Given a clinical situation, the student will consistently demonstrate proper technique of assessment intervention.
- D. Correlate assessment data and patients pathophysiology to implement and evaluate a safe and appropriate treatment plan.
1. Given a clinical situation, the student will consistently identify pathophysiological changes that are present.
  2. Given a clinical situation, the student will consistently identify clinical signs and symptoms that are emergent in nature and recommend appropriate steps to resolve.
  3. Given a clinical situation and appropriate patient information, the student will consistently identify the correct protocol or treatment plan to improve the patient's cardiopulmonary status.
- E. Develop psychomotor skills in performing basic respiratory therapy procedures according to the acceptable treatment protocol.
1. The student will demonstrate successful completion of the following performance evaluations:
    - i. Hand Washing (#1)
    - ii. Oxygen Supply Systems (#2)
    - iii. Oxygen Delivery Devices (#3)
    - iv. Oxygen Tent (#4)
    - v. Oxygen Therapy (#5)
    - vi. Oxygen Rounds (#6)
    - vii. Aerosol Therapy (#7)
    - viii. Metered Dose Inhaler (#8)
    - ix. Incentive Spirometry (#9)
    - x. IPPB (#11)
    - xi. Chest Physical Therapy (#12)
    - xii. Suctioning (#13)
    - xiii. Manual Resuscitation - Adult (#14)
    - xiv. Manual Resuscitation – Infant (#15)
    - xv. Intubation and Alternate Airways (#16)
    - xvi. Arterial Blood-Gas Sampling (#18 - Optional)
    - xvii. Pulse Oximetry (#29)

- F. Compare and contrast the different modes of mechanical ventilation and demonstrate proficiency in ventilating lung models in the laboratory setting.
  - 1. The student will demonstrate the ability to disassemble, process, reassemble, and perform a self-test on a ventilator to ascertain proper function prior to placement on a patient.
  - 2. The student will demonstrate the ability to prepare a mechanical ventilator in the assist/control (A/C) mode.
  - 3. The student will demonstrate the ability to make ventilator changes and to troubleshoot when problems arise.
  - 4. The student will demonstrate proper documentation of the patient-ventilator interface.

**IX. COURSE ASSESSMENT MEASURES:**

- A. Clinical Evaluation Forms
- B. Daily Work Logs
- C. Physician Contact Forms
- D. Clinical Competency Check-offs (Performance Evaluations)
- E. Hospital Evaluations done by the students at the end of the hospital rotation.

**X. OUTLINE**

- A. Airway Resistance
- B. Lung Compliance
- C. Deadspace Ventilation
- D. Ventilatory Failure
- E. Oxygenation Failure
- F. Indications for Mechanical Ventilation
- G. Pulmonary Considerations
- H. Cardiovascular Considerations
- I. Hemodynamic Considerations
- J. Renal Considerations
- K. Ventilatory Work
- L. Input Power
- M. Drive Mechanism
- N. Control Circuit
- O. Control Variables
- P. Phase Variables
- Q. Output Waveforms
- R. Alarm Systems
- S. Negative and Positive Pressure Ventilation
- T. Operating Modes of Ventilation
- U. Positive End Expiratory Pressure (PEEP)
- V. Continuous Positive Airway Pressure (CPAP)
- W. Controlled Ventilation
- X. Assist-Control Ventilation
- Y. Synchronized Intermittent Mandatory Ventilation
- Z. Pressure Support Ventilation
- AA. Tube Compensation
- BB. Dual-Control Mode Ventilation
- CC. Physiologic Effects of Noninvasive Positive Pressure Ventilation (NIPPV)
- DD. Continuous Positive Airway Pressure (CPAP)

- EE. Bi-level Positive Airway Pressure (BiPAP)
- FF. Common Interfaces for CPAP and BiPAP
- GG. Interface Problems
- HH. CPAP/BiPAP Titration
- II. Indication for Mechanical Ventilation
- JJ. Contraindications for Mechanical Ventilation
- KK. Initial Ventilator Settings
- LL. Ventilator Alarm Settings
- MM. Hazards and Complications of Mechanical Ventilation
- NN. Patient Assessment
- OO. Fluid Balance
- PP. Anion Gap
- QQ. Arterial Blood Assessment
- RR. Oxygen Saturation
- SS. Flow Waveforms
- TT. Pressure Waveforms
- UU. Volume Waveforms