

OHLONE COLLEGE
Ohlone Community College District
OFFICIAL COURSE OUTLINE

I. Description of Course:

1. **Department/Course:** RT - 140

2. **Title:** Basic Introduction to Polysomnography

3. **Cross Reference:**

4. **Units:** 0.5

Lec Hrs: 0.5

Lab Hrs:

5. **Repeatability:** No

6. **Grade Options:** Grade Only (GR)

7. **Degree/Applicability:**

Credit, Degree Applicable, Not Transferable (D)

8. **General Education:**

9. **Field Trips:** May be Required

10. **Requisites:**

12. **Catalog Description:**

The study and assessment of sleep is a very contemporary concern in the field of Respiratory Care. This course will provide an overview of sleep adequacy analysis, sleep disorders and activities of practitioners who assess and treat individuals with sleep problems.

13. **Class Schedule Description:**

Course for respiratory therapists & other healthcare providers to understand sleep-related breathing abnormalities.

14. **Counselor Information:**

This course is for students in the Respiratory Therapy Program, Respiratory Therapists in the community and other healthcare providers. It is offered every other year and is a web-enhanced class. Not for the general public.

II. Student Learning Outcomes

The student will:

1. List the basic characteristics of normal human sleep and the rhythmicity of sleep patterns.
2. Identify variables in sleep that interrupt normal rhythms.
3. Describe sleep deprivation symptoms and the difference between "insomnia" and "parasomnia."
4. Describe the principle of polysomnographic measurements in the evaluation of sleep.
5. Describe the principle of "sleep-related breathing disorders" and treatment options.
6. Describe the measurement of "excessive day-time somnolence."
7. List three types of interruptions in chrono-biology that adversely affect normal sleep.

III. Course Outline:

A. Principles of Normal Sleep in Humans

1. Definition of Sleep
2. Physiologic Responses to Sleep

B. Insomnia and Parasomnias

1. Insomnia

- 2. Parasomnia
- C. Principles of Polysomnography
 - 1. Polysomnographic Components
 - 2. Types of Artifact
 - 3. Sleep Recordings
- D. Introduction to Sleep-related Breathing Disorders
 - 1. Obstructive Sleep Apnea Syndrome
 - 2. Central Sleep Apnea Syndrome
 - 3. Mixed Sleep Apnea Syndrome
 - 4. Physiological Consequences

IV. Course Assignments:

A. Reading Assignments

- 1. Wilkins, RL et al: Egan's Fundamentals of Respiratory Care, Eighth Edition. 2003, Mosby, Inc. Chapter 27. Disorders of Sleep.
- 2. Wilkins, RL, et al: Clinical Assessment in Respiratory Care. Fourth Edition. 2005, Mosby, Inc. Chapter 18. Assessment of Sleep and Breathing.
- 3. Mishoe, SC et al: Critical Thinking in Respiratory Care, A Problem-Based Learning Approach. 2002, McGraw-Hill Company. Chapter 15. Obstructive Sleep Apnea.

B. Projects, Activities, and other Assignments

- 1. Students currently enrolled in the Respiratory Therapist Program will apply knowledge of sleep disorders to the application of CPAP (continuous positive airway pressure) on actual patients in the clinical setting while enrolled in RT 106, RT 107, RT 130L, and/or RT 136. Those not enrolled in the RT Program will not be required to complete this assignment or complete an additional assignment.

C. Writing Assignments

- 1. none

V. Methods of Evaluation/Assessment:

- A. Two on-line quizzes.
- B. One final exam.

VI. Methods of Instruction:

- A. Discussion
- B. Computer Assisted Instruction
- C. Lecture

VII. Textbooks:

Required

- 1. Mishoe, SC *Critical Thinking in Respiratory Care, A Problem-Based Learning Approach* 1 Edition, McGraw-Hill Company, 2002 ISBN: 0-07-134474-8
- 2. Wilkins, RL *Egan's Fundamentals of Respiratory Care* 8 Edition, Mosby, Inc, 2003 ISBN: 0-323-01813-0
- 3. Wilkins, RL *Clinical Assessment in Respiratory Care* 4 Edition, Mosby, Inc., 2000 ISBN: 0-323-00909-3

Optional

VIII. Supplies:

- A. none

