

**SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
POLYSOMNOGRAPHY TECHNOLOGY
Revision Date: 10/2021**

I. CATALOG DESCRIPTION

Course Number: PSGT 2040
Course Title: Polysomnography 2
Prerequisite(s):

Catalog Description: Study of sleep-wake regulation over the life cycle. Emphasis will be on the pathologies of sleep disorders, consequences if left untreated, and classifying sleep disorders according to the international classification of sleep disorders. The impact of medical conditions and medications on sleep, as well as the impact of disordered sleep on managing chronic conditions will be examined. RPSGT exam preparation is included.

Credit Hours: 2
Class Hours: 30
Lab Hours: 0
Total Contact Hours: 30

II. COURSE OBJECTIVES: *Course will:*

1. Discuss the evolution of sleep medicine.
2. Describe the physiology of normal sleep including the differences between genders and age groups.
3. Detail the factors which affect regulation of the sleep-wake cycle.
4. Describe how a normal cardiopulmonary system functions throughout the sleep-wake cycle.
5. Detail sleep disorders including the pathology and consequences of not treating the disorders.
6. Describe how various diseases/disorders can affect sleep.
7. Discuss how medications of different classifications can affect sleep.
8. Identify the differences in common sleep disorders between adults and children/infants.
9. Analyze RPSGT practice exam questions.
10. Identify how to obtain and maintain the RPSGT credential.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

A. STUDENT LEARNING OUTCOMES: *Students will be able to:*

1. Demonstrate competence in concepts through written evaluations.
2. Demonstrate competence in sleep disorder recognition.

3. Demonstrate competence in sleep technology by earning a 70% or higher on the RPSGT Self-Assessment Exam.

B. GENERAL EDUCATION LEARNING OUTCOMES

GELO 3: Critical Thinking & Problem Solving

Outcome 2: Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)

A. OVERVIEW OF SLEEP MEDICINE

1. The evolution of Polysomnographic Technology
2. The Scope of Modern Sleep Medicine

B. CARDIOPULMONARY ASPECTS OF SLEEP

1. The Airway and Mechanics of Breathing
2. Breathing Control Mechanisms

C. PHYSIOLOGY OF NORMAL SLEEP

1. Neurophysiologic Basis of Sleep and Wakefulness
2. Normal Patterns and Phenomena of Sleep, Arousal and Wakefulness
3. Sleep Hygiene
4. Sleep Deprivation
5. Insomnia
6. Circadian Rhythms
7. Sleep Across the Life Cycle
8. Sleep and Aging
9. Sleep in Women

D. SLEEP DISORDERS

1. Obstructive Sleep Apnea
2. Central Sleep Apnea
3. Parasomnias
4. Periodic Leg Movements of Sleep
5. Restless Legs Syndrome
6. Narcolepsy

E. EVALUATION OF HYPERSOMNIA

1. MSLT/MWT
2. Actigraphy
3. Subjective Evaluation of Sleepiness
4. In-home testing procedures

F. PEDIATRIC AND INFANT SLEEP

1. Preparation of Infants and Children for Polysomnography
2. Infant and toddler Polysomnography
3. Sleep-Related Breathing Disorders in Children
4. Nonrespiratory Pediatric Sleep Disorders
5. Neuromuscular Disorders Affecting Sleep in Children
6. Pulmonary Disorders Affecting Sleep in Children
7. Parasomnias in Children
8. Interventions in the Pediatric Sleep Laboratory

G. RECOGNIZING ATYPICAL EVENTS

1. Nocturnal Seizures
2. Pharmacologic Effects on the Polysomnogram

H. EFFECTS OF DISEASE ON SLEEP

1. Medical Disorders Effects on Sleep
2. Vascular Disorders Effects on Sleep
3. Neurologic Disorders Effects on Sleep
4. Psychiatric Disorders Effects on Sleep
5. Movement Disorders Effects on Sleep

I. RPSGT EXAM PREPARATION

1. Exam Matrix
2. Analyzing Questions
3. Creation of Test Questions
4. Practice Exams

V. INSTRUCTIONAL MATERIALS

A. Required Text(s):

Fundamentals of Sleep Technology (current ed.), Lippincott, Williams & Wilkins B.

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following

1. Lecture videos
2. Demonstration videos
3. Websites
4. Class participation
5. Case studies
6. Interactive videos
7. Interactive assessments
8. Flashcards & games

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of assignments, quizzes, exam, projects, skill checkoffs, etc. For grading expectations please see the course information document.

SCC STANDARD GRADING SCALE POLICY:

A+	95-100	C+	75-79
A	90-94	C	70-74
B+	85-89	D+	65-69
B	80-84	D	60-64
		F	Below 60

VIII. SPECIFIC COURSE REQUIREMENTS

A. ATTENDANCE

Attendance is crucial to the success of this course. The expectation is a minimum of 15 minutes per day spent in this online course, with a total of 75 hours spent on this course per week.

- B.** Must pass all program courses with a C+ or better to progress to graduation.
- C.** Must achieve a 70% or higher on the RPSGT Self-Assessment Exam.

Please see course information document for course policies related to grading, expectations, assignments, assessments, and participation.