

# Polysomnography/Sleep Technology, A.A.S.

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Polysomnographic technologists perform sleep diagnostics working in conjunction with physicians to provide comprehensive clinical evaluations that are required for diagnosis of sleep disorders. By applying non-invasive monitoring equipment, the technologist simultaneously monitors EEG (electroencephalography), EOG (electro-oculography), EMG (electromyography), ECG (electrocardiography), multiple breathing variables and blood oxygen and carbon dioxide levels during sleep. Interpretive knowledge is required to provide sufficient monitoring diligence to recording parameters and the clinical events observed during sleep. Technologists provide supportive services related to the ongoing treatment of sleep related problems. The professional realm of this support includes guidance on the use of devices for the treatment of breathing problems during sleep and helping individuals develop sleeping habits that promote good sleep hygiene. PSG technologists are employed in Sleep Disorders Centers and Labs, which may be located in medical centers, hospitals, or clinic/office settings.

The Polysomnography program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Graduates of the program will enter the field as Polysomnographic Technicians and be prepared to sit the national exam given by the Board of Registered Polysomnographic Technologists (BRPT) to gain the Registered Polysomnographic Technologist (RPSGT) credential.

This is a selective admission program with limited enrollment. Prospective students are encouraged to visit the program Web site (<http://www.jccc.edu/sleeptechnology>) or to contact JCCC program personnel for additional information and application materials at 913-469-7655.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers.

Metropolitan Community College students should refer to Cooperative Program Information (<http://www.jccc.edu/cooperative>).

This program requires a professional liability insurance fee. Students will be notified via their JCCC student e-mail account if they are required to pay a \$16 fee. The dollar amount for fees is subject to change.

Students must "pass" all clinical courses and maintain a grade of "C" or higher in all non-clinical courses to remain in the program.

(Major Code 236A; State CIP Code 51.0917)

- Polysomnography (<http://www.jccc.edu/sleeptechnology>)

## Associate of Applied Science Degree

### Prior to beginning professional courses

MATH 116	Intermediate Algebra* (or higher)	3
CHEM 122	Principles of Chemistry*	5
BIOL 144	Human Anatomy and Physiology*	5-8
or BIOL 140 & BIOL 225	Human Anatomy and Human Physiology*	
Total Hours		13-16

### First Semester

EMS 121	CPR I - Basic Life Support for Healthcare Provider (Or current AHA BLS Health Care Provider Certification AND Health and/or Physical Education Elective)	1
HC 130	Medical Terminology for Healthcare Professions (Or satisfactory completion of a health related degree or certificate)	3
ENGL 121	Composition I*	3
PSG 125	Introduction to Sleep Medicine*	4
PSG 130	Physiology of Sleep Medicine*	3
Total Hours		14

### Second Semester

PSG 140	Sleep Disorders*	4
PSG 145	Sleep Study Instrumentation*	4
PSG 150	Polysomnography I*	4

Communications Elective ^	3
Total Hours	15

^ Communications Elective (<http://catalog.jccc.edu/spring/degreecertificates/electives/communications-aas>)

### Third Semester

PSG 245	Polysomnography Clinical I*	6
PSG 250	Polysomnography II*	4
Social Science/Economics Elective ^		3
Total Hours		13

^ Social Science/Economics Elective (<http://catalog.jccc.edu/spring/degreecertificates/electives/social-sci-econ-aas>)

### Fourth Semester

PSG 255	Polysomnography Clinical II*	6
PSG 265	Polysomnography Capstone*	3
Humanities/Art Elective ^		3
Total Hours		12

^ Humanities/Art Elective (<http://catalog.jccc.edu/spring/degreecertificates/electives/humanities-aas>)

**Total Program Hours: 64-70**

## Courses

### PSG 125 Introduction to Sleep Medicine\* (4 Hours)

**Prerequisites:** Admission to the polysomnography program

**Corequisites:** Current AHA BLS Health Care Provider Certification

This course is an introduction to the history of sleep medicine. It also explores the role and the communication, time management, infection control, basic patient assessment, safety and professional expectations of the polysomnographic technologist. Students will have the opportunity to have direct observation in an associated sleep center or lab. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 4 hrs. integrated lecture/lab each week and 48 clinical hrs./semester.

### PSG 130 Physiology of Sleep Medicine\* (3 Hours)

**Prerequisites:** Admission to the polysomnography

This course will provide a comprehensive study of neuroanatomy and physiology and normal sleep mechanisms. It will also provide an overview of the cardiovascular and respiratory anatomy and physiology as it relates to sleep medicine. This includes ECG interpretation, oxygenation and ventilation assessment, and mechanisms and basic management of breathing. 3 hrs. lecture/wk.

### PSG 140 Sleep Disorders\* (4 Hours)

**Prerequisites:** PSG 125 with a grade of "C" or higher and PSG 130 with a grade of "C" or higher

**Corequisites:** Current AHA BLS for Health Care

This course is designed to provide the basic information related to the disease processes and conditions which adversely effect sleep. The etiologies, clinical presentation, diagnosis and therapeutic interventions will be covered for each condition. 3 hrs. lecture and 48 clinical hrs./semester.

### PSG 145 Sleep Study Instrumentation\* (4 Hours)

**Prerequisites:** PSG 125 with a grade of "C" or higher and PSG 130 with a grade of "C" or higher

This course will introduce the bio-potential electrophysiologic, polysomnographic, and ancillary equipment involved in patient assessment and the conducting of sleep studies. The basic principles, set up, operation, maintenance, cleaning and troubleshooting will be emphasized. 6 hrs. integrated lecture lab./wk.

**PSG 150 Polysomnography I\* (4 Hours)**

**Prerequisites:** PSG 125 with a grade of "C" or higher and PSG 130 with a grade of "C" or higher

**Prerequisites or corequisites:** PSG 140 with a grade of "C" or higher and PSG 145 with a grade of "C" or higher

This course provides the didactic preparation that will be needed to supplement the clinical experiences of Polysomnography Clinical I. Students will develop new knowledge and skills related to patient and equipment preparation, monitoring and documentation and therapeutic interventions associated with polysomnographic procedures. 6 hrs. integrated lecture lab./wk.

**PSG 245 Polysomnography Clinical I\* (6 Hours)**

**Prerequisites:** PSG 140 with a grade of "C" or higher and PSG 145 with a grade of "C" or higher and PSG 150 with a grade of "C" or higher

**Corequisites:** Current AHA BLS Health Care Provider Certification

This course is the clinical application of entry-level sleep related diagnosis and treatment. Students will have the opportunity to work with patients under close supervision to further develop their skill and understanding of basic polysomnographic procedures. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 24 hrs. clinic/wk.

**PSG 250 Polysomnography II\* (4 Hours)**

**Prerequisites:** PSG 150 with a grade of "C" or higher

This course provides the didactic preparation that will be needed to supplement the clinical experiences of Polysomnography Clinical II. Students will refine knowledge and skills related to patient and equipment preparation, monitoring and documentation and therapeutic interventions associated with polysomnographic procedures. 6 hrs. integrated lecture lab/wk.

**PSG 255 Polysomnography Clinical II\* (6 Hours)**

**Prerequisites:** PSG 245 with a grade of "C" or higher and PSG 250 with a grade of "C" or higher

**Corequisites:** Current AHA BLS Health Care Provider Certification

This course is the clinical application of sleep related diagnosis and treatment. Students will have the opportunity to further refine their skills in obtaining and evaluating high quality sleep recordings and gaining clinical competence associated with advanced-level polysomnographic technology skills. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 24 hrs. clinical/wk.

**PSG 265 Polysomnography Capstone\* (3 Hours)**

**Prerequisites or corequisites:** PSG 255 with a grade of C" or higher

This course is designed as a capstone experience to facilitate final preparation for employment and the BRPT examination for the RPSGT credential. Students will demonstrate knowledge and skill competency attainment expected of a polysomnographic technologist. Students will also be required to pass a comprehensive exam based on the current BRPT matrix. 5 hrs. integrated lecture lab./wk.