

MASTER SYLLABUS

PSG 1123 Polysomnography Technology Freshman Year / 1st Semester

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OFFICE HOURS: 8AM-4PM **OFFICE LOCATION: AHB**
CLASS TIME(S)/SECTIONS: W 9AM-12PM

Course Description: This course introduces the fundamental concepts of electricity and test equipment in the field of Polysomnography. Topics include basic DC and AC principles (voltage, resistance, current, and impedance), components (resistors, inductors, and capacitors), power, and operation of test equipment. (3 semester credit hours: 3 lecture hours)

The information in the CCC Student Handbook for Health Science Programs applies to this course PSG 1123 and is accessible at <http://www.coahomacc.edu/healthsciences/HealthP&P.pdf>.

Textbook(s) and Material(s):

1. Essentials of Polysomnography, 2nd Edition; William Spriggs, et. al. Sleep Ed, LLC 2015 (ISBN: 978-1-284-03027-3)
2. The International Classification of Sleep Disorders, 3rd Edition, American Academy of Sleep Medicine, 2015 (978-0-9915434-1-0)
3. Fundamentals of Sleep Medicine; Richard B. Berry, MD, 2012 (ISBN: 978-1-4377-0326-9)

Material(s) (including but not limited to):

1. (1) 5-subject ruled notebook
2. Black or blue pens
3. (1) 300-count ruled index cards
4. (1) 100-count ring index cards
5. (1) index card box
6. #2 pencils
7. Pencil Erasers
8. Small personal planner
9. Calculator
10. Highlighters

Student Learning Outcomes:

Upon completion of this course, the student will be able to do the following:

1. Demonstrate the knowledge of the principles of electrical conduction and safety.
 - a. Explain basic electricity and magnetic, electrical conduction, polarity, conductors, resistors, capacitors, transistors, insulators, Ohm's law, sensitivity, filters, circuits, AC amplifiers, DC amplifiers, differential amplifiers, signal multiplexers, and common mode rejection.
 - a. Demonstrate the understanding of basic AC/DC instrumentation.
 - b. Summarize the process of measuring the electromechanical functions of the human body, including extra-cellular potentials created by cardiac, brain, muscle, and integumentary.
 - d. Explain and demonstrate principles of the function and handling of electrodes, electrolytic substances, and fixatives.
 - e. Explain the frequency and voltage characteristics of EEG, EOG, EMG, and ECG.
 - f. Explain and demonstrate impedance measurements and impedance meters.
 - g. Prepare sample montages indicating the channel derivation and how they differ for referential and bipolar recordings.
 - h. Explain signal calibration, electrical baseline, and mechanical baseline.
 - i. Discuss the origins of artifact and demonstrate artifact elimination.
 - j. Summarize the effect of different time bases on the PSG signal display.
 - k. Summarize and demonstrate the principles of electrical safety.
2. Demonstrate the knowledge of montage including signal derivation and amplification.
 - a. Explain and demonstrate the principles of signal calibration as they pertain to digital and analog recording systems, and substandard signal calibrations.
 - b. Explain and demonstrate the principles of evaluating impedance and the use of impedance meters.
 - c. Explain and perform the principles of physiological calibration.
 - d. Explain and perform the principles of troubleshooting electrical and mechanical problems.
 - e. Explain and demonstrate the principles of alteration of amplifier settings.
 - f. Explain and demonstrate the principles of derivation alteration.
 - g. Demonstrate the knowledge and application of signal processing (filter, sensitivity) and calibrations.
3. Apply and demonstrate the knowledge of the AASM Scoring Manual as follows:
 - a. Visual Rules
 - b. Arousal Rules
 - c. Cardiac Rules
 - d. Movement Rules
 - e. Respiratory Rules
 - f. Data Analysis and Report Generation

g. Archiving and Data Storage

Attendance:

Tardiness:

- A student is deemed to be tardy if the student is not seated following 10 minutes after the period of instruction is scheduled to begin
- Following 15 minutes after the period of instruction is scheduled to begin, the door to the classroom will be locked and the student will not be permitted to join the class.
- Three incidents of tardiness will be recorded as one absence.

Absences: An absence is defined as either three incidents of tardiness or missing more than 50% of any given period of instruction.

- A student may receive up to three absences each semester.
- If the student exceeds three absences, the student will not be able to continue in the Polysomnographic technology program.(see Health Science Policy and Procedure Manual)

Absence from Class for School Sanctioned Activities:

The nature of the educational programs at Coahoma Community College is such that it is necessary for every student to attend class regularly. Instructors will keep accurate class attendance records, and those records will become part of the student's official record. Regular class attendance and punctuality are expected. All arrangements for completing missed work are to be made with the instructor. It is the student's responsibility to initiate these arrangements. *Excessive absences may result in loss of credit for the course concerned as well as loss of grant refunds and/or financial aid eligibility.* For more information, see the Attendance Policy section in the College Catalog.

Make-up Policy:

Students missing a test or quiz with a valid excuse (*see section regarding time and attendance for clarification regarding what constitutes an excused absence or tardiness*) may, at the discretion of the instructor, be permitted to make the test up. Those students missing a test or quiz without a valid excuse will be prohibited from making the test up, and will be granted a "0" for that exercise.

Academic Dishonesty:

Cheating and plagiarism (the representation of someone else's work as your own, usually by directly copying or paraphrasing without a reference to the original source) will not be tolerated. The penalty will be receiving a (0) for that assignment, without any possibility of make-up work or alternative assignments. Additionally, according to the Student Handbook, *such acts will be considered a severe infraction and carry a possible sanction of suspension in semester (s) length or expulsion.* For a more in-depth explanation of academic dishonesty, see the Student Handbook.

The forging of another student's name or signature on the attendance sheet will also be considered academic dishonesty. The student will receive a (0) for his/her daily compliance grade.

Electronic Devices in Class:

The use of cellular phones, pagers, CD players, radios, and similar devices is **PROHIBITED** in the classroom and laboratory facilities.

Non-Discrimination Statement:

Coahoma Community College is an equal opportunity institution in accordance with civil rights and does not discriminate on the basis of race, color, national origin, sex, disability, age, or other factors prohibited by law in any of its educational programs, activities and employment opportunities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Wanda G. Holmes, Director of Human Resources/Coordinator for 504/ADA, Title IX Compliance Officer, Office #A100, Vivian M. Presley Administration Building, 3240 Friars Point Road, Clarksdale, Mississippi 38614, Phone: (662)621-4853, Email: wholmes@coahomacc.edu.

DRESS CODE:

Slacks:

- Must come to the break of the heel.
- Must be secured with either belt or suspenders.
- Must be well pressed, clean, and in good repair.

Skirts/Shorts:

- Must not exceed two (2) inches above the knee when standing.
- Must not interfere with freedom of movement (too tight).
- Must be well pressed, clean, and in good repair.

Shoes:

- Heels of more than two (2) inches are prohibited.
- Must be polished and in good repair.

Shirts, blouses, and jackets:

- Revealing shirts or blouses are prohibited.
- "See-Through" material is prohibited.
- The neckline must not exceed three (3) inches below the clavicle.
- Men's dress shirts must be tucked into the slacks.
- Must be well pressed, clean, and in good repair.
- No "blankets" or "hoodies" can be worn for warmth. Only jackets or sweaters are permitted for use in the classroom.

Jewelry:

- Wedding sets cannot interfere with the donning or removal of gloves.
- Necklaces and pendants are discouraged, but if worn, must be kept beneath the shirt or blouse.
- Only one earring is permitted in each ear, and may not exceed one inch in diameter.

Scrubs:

- Scrub uniforms are permitted at the discretion of the instructor.
- Scrub tops must be tucked into the pants unless of the style designed to be worn outside the pants.
- All scrubs must be worn with a clean, white, round-neck, short sleeved tee shirt beneath.
- Must be well pressed, clean, and in good repair.
- Must not interfere with freedom of movement (too tight)

Personal Hygiene:

- Proper personal hygiene is required at all times.
- Use of perfume and/or cologne in the classroom is discouraged.
- Use of perfume and/or cologne in the clinical setting is prohibited.
- Scented personal care products such as deodorants, powders and aftershaves are considered perfumes/colognes.

Miscellaneous:

- Undergarments must be worn.
- Clothing with advertising, artwork, or political statements are prohibited.
- Headgear of any kind is prohibited in the classroom, laboratory, and clinical settings
- Tattoos must be covered at all times.
- All body piercings and body jewelry other than earrings are prohibited. Those with body piercings must remove all visible jewelry.
- No extreme hair styles and/or colors are allowed.
- Any “leggings”, including jean “leggings” cannot be worn as a substitute for pants or slacks.

Instructional Techniques:

Group work, Power Point Projections, Black Board Discussion Board, Handouts, Internet

Method(s) of Evaluation:

Mid Term Evaluation, Final Evaluation, Electronic Chapter Testing, Paper/Pencil Quizzes

(Method(s) of evaluation must measure the student learning outcomes listed above.)

Grade Scale:

Assignments/ Tests/ Quizzes=	40%
Daily Compliance=	10%
Mid-Term Examination=	20%
Final Examination=	30%

The institution and the instructor reserve the right to make modifications to the grading scale and requirements as necessary to enhance each student's educational experience and student learning outcomes.

Daily Class Compliance (10%):

The daily class compliance grade is a daily grade which includes:

- **Tardiness.** If a student is considered tardy, 5 points will be deducted from the overall grade. If a student is absent, that student will receive a zero for the overall grade.
- **Dress code.** The dress code should be followed as noted above. Any part of the dress code that is not appropriate or missing will result in 5 points being deducted from the overall grade
- **Class Preparation.** Items include but are not limited to a pen, pencil, notes, paper, highlighter, calculator, etc. A total of 5 points for each missing supply will be deducted from the overall grade.
- **Cell phone disturbance.** NO CELL PHONES SHOULD BE PRESENT during class. Cell phones are both a visual and auditory distraction. If a cell phone is seen by an instructor, 15 points will be deducted from the overall grade. If a cell phone is heard, 20 points will be deducted

The Polysomnography grading scale is as follows:

College students' progress in the Polysomnography Program is evaluated according to the following grading system. All students must maintain a minimum of a “C” GPA to remain in good standing in the Polysomnography Program.

GRADE	SCALE	QUALITY POINTS
A – Excellent	94-100	4.0
B – Good	87-93	3.0
C – Average	80-86	2.0
D – Poor	70-79	1.0
F – Failure	69 and below	0.0

COURSE OUTLINE
Polysomnography Technology/ PSG 1123

WEEK	ASSIGNMENTS/TESTS	DATE DUE

This outline is intended as a guideline for the course. The institution and the instructor reserve the right to make modifications in content, schedule, and requirements as necessary to enhance each student's educational experience and student learning outcomes.