

INSTRUCTOR:	Rhonda Neiman	E-MAIL:	Rneiman@alvincollege.edu
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OFFICE HOURS:	By Appointment		
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WELCOME TO ACC:

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Course Title: Electroencephalography

Course Number: ENDT 1350

Credit Hours: 3

Lecture Hours: 2

Lab Hours: 2

Total Contact Hours: 64

Term and Year: Fall 2018

Class Days & Times: Monday Lecture 8:00am- 10:10am; Lab will follow.

Classroom Location: S245 and S246

A. COMMUNICATING WITH YOUR INSTRUCTOR

All electronic communication between ACC faculty and students will be through college email. All correspondence **requires** use of your ACC email address (example@student.alvincollege.edu). Please be sure to check your email on a regular basis so that you do not miss important information.

If you are a new student or a returning student who does not have an email account, please access <http://www.alvincollege.edu/Campus-Technology> to set-up your WebACCess ID and ACC student email account. Additional information, including technical assistance, can be acquired on the Campus Technology website or by phone (281.756.3544) and email (itservices@alvincollege.edu).

B. COURSE DESCRIPTION

The field of electroencephalography (EEG) and its use in medicine and surgery. Emphasizes patient hookup, taking histories, careful handling of the patient, reviewing normal and abnormal brainwaves, identifying artifacts, EEG instrumentation, pattern recognition, and sleep recordings. Includes examination of EEG findings in neurological disease and an introduction of special EEG procedures

C. STUDENT LEARNING OUTCOMES

Define and identify basic EEG rhythms, activity, and artifacts; diagram the electrophysiologic characteristics of neurons as they are related to the generation of EEG activity; correlate common clinical conditions associated with the cerebrum; and demonstrate performance of obtaining basic patient histories using appropriate interpersonal communication skills.

D. PRE-REQUISITE COURSES: None

CO-REQUISITES: ENDT 1345

E. REQUIRED TEXTBOOK AND SUPPLEMENTAL READINGS

- o Book: Practical Guide for Clinical Neurophysiologic Testing: EEG, 2nd Edition, T. Yamada & E. Meng ISBN 978-1-4963-8302-0
- o Book: Practical Approach to Electroencephalography, Mark Libenson, 2010 ISBN 978-0-7506-7478-2

For more information about the textbooks, including details about how to order your book online and have it delivered to you, visit the ACC College Store at www.alvincstore.com.

F. COURSE OUTLINE

Unit 1: Fundamentals of Electrode Placement and Electrode properties.

Unit 2: Patient documentation, interaction, and infection control

Unit 3: Basic normal wave patterns and artifacts

Unit 4: Activation procedures and age specific considerations

UNIT 1 OBJECTIVES

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

1. Measure and mark the head following the International 10/20 measurement system;
2. Adjust electrode placement for anatomical defects or anomalies;
3. Prep a patient's scalp prior to electrode application;
4. Apply electrodes with paste or with collodion and electrolyte
5. Identify the types of electrode used in EEG.
6. Verify that electrode impedances are balanced and below 5,000 Ohms (up to 10 Ohms)

UNIT 2 OBJECTIVES

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

1. State the attributes required of an END technologist
2. Define the role and responsibilities of the END technologist in the care and handling of the patient
3. State the pretest EEG instructions given to the patient
4. List the general questions asked of a neurological patient
5. List the specific questions asked when obtaining a patient history
6. State the procedure for performing posttest clean-up
7. List the precautions for interacting or positioning patients with additional medical issues
8. Follow universal precautions for infection control

UNIT 3 OBJECTIVES

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

1. State the EEG characteristics common to all brain waves.
2. Given a diagram, measure waves for frequency and duration.
3. State the features of basic wave patterns
4. State the features of basic sleep patterns.
5. Match the features with the adult sleep stage in which they occur.
6. State the features of basic sleep patterns.
7. Recognize possible artifactual waveforms;
8. Document (on the recording) patient movements;
9. Replace electrodes exhibiting questionable activity or contact; and
10. Troubleshoot for possible artifactual EEG patterns.

UNIT 4 OBJECTIVES

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

1. Define activation procedures
2. List the activation procedures.
3. State the purpose of activation procedures.
4. State the indications for each activation procedure.
5. State the contraindications for each activation procedure.
6. State how to perform each activation procedure.
7. List the results derived from each activation procedure.
8. Identify age specific normal and normal variant awake and asleep patterns

G. EXAMS AND MAJOR ASSIGNMENTS	H. POLICIES ABOUT COURSEWORK AND DEADLINES
Quizzes and Assignments (10%)	- any assignment not turned in by the due date and time will receive a late deduction of 10 points per day. - Quizzes will only be given in the first 15 minutes of the class. No makeup will be allowed. -Lowest Grade will be dropped at the end of the semester
Lab Competency (20%)	- Student will complete a Routine EEG Application and demonstrate knowledge of performing a routine EEG Exam. Details will be provided in Lab. -A minimum grade of "70" is required in order to satisfactorily pass the Lab Competency. A maximum of (2) attempts will be permitted. Any grade below a 70 will be recorded as a zero (0).
Lab Participation (5%)	-Participation in lab is mandatory, both as a student technologist and acting as a patient. -Not participating or arriving unprepared for Lab will result in up to a 6-point deduction /per day from the lab participation grade.
Unit Exams (50%)	-4 Exams, Multiple Choice format - Students may miss one examination which must be made up on the date of return prior to the scheduled class. For each additional missed exam, no makeup will be given.
FINAL EXAM (15%)	-Comprehensive, Multiple Choice format - The final exam will only be given during Finals week. No makeup will be allowed for missed Final Exams. An "Incomplete" for missing a final exam will be given ONLY for extreme, inevitable circumstances. An "inevitable" circumstance will be defined at the discretion of the instructor and documentation must be provided.

Incomplete. No Incompletes or "I" grades will be given except for extreme circumstances. If an "I" grade is assigned and the course work is not completed by the pre-arranged time limit, this grade will convert to an "F".

I. GRADING SUMMARY

	% of Final Grade
Quizzes and Assignments	10%
Lab Competency	20%
Lab Participation	5%
Unit Exams	50%
FINAL EXAM	15%
Total	100%

Grading Scale	Grade
90-100	A
80-89	B
70-79	C
Below 70	F

J. WITHDRAWAL FROM CLASS/COLLEGE

It is recommended that the student talk to the instructor before withdrawing. Current course withdrawal information can be found in the printed version of the ACC Schedule for this semester or online at [ACC Course Withdrawal Instructions](#). Students who file withdrawal requests by the published deadline and have not exceeded the withdrawal maximum will receive a grade of W.

Six Drop Limit

The Texas Legislature passed a ruling that limits the number of classes a student can drop during their years as an undergraduate student to six. This policy applies to any student who was a first time college freshmen fall, 2007, or later, who attends a Texas public institution of higher education. Courses dropped while attending a private or out of state college do not count toward the six drop limit. For further information, refer to the [ACC Catalog](#) or contact Student Services.

K. COURSE GRADE APPEAL PROCESS

Students have one year from the date of the grade assignment to challenge a grade. Refer to the grade appeal process as published in the [ACC Catalog](#) on page 36.

L. CLASS ATTENDANCE POLICY

ENDT 1350 Policy- Attendance for the ENTIRE class is mandatory. This includes lecture AND lab. **After the second missed class, five (5) points will be deducted from the final grade for each additional absence.**

Alvin Community College students are required to attend classes. If an absence is unavoidable, the student is responsible for completing all work missed during the absence. Instructors will not withdraw students for non-attendance, except in developmental courses. Absences in excess of two weeks will be reported to the Office of Advising Services, along with appropriate recommendations. Departments and faculty may have other attendance policies for their course.

Faculty may issue the grade of FX for non-attendance after the official census date. The FX grade has no grade points assigned per semester hour due to a student's non-attendance.

M. CODE OF ACADEMIC INTEGRITY AND HONESTY

Alvin Community College students are members of an institution dedicated to the pursuit of knowledge through a formalized program of instruction and learning. At the heart of this endeavor, lie the core values of academic integrity which include honesty, truth, and freedom from lies and fraud. Because personal integrity is important in all aspects of life, students at Alvin Community College are expected to conduct themselves with honesty and integrity both in and out of the classroom. Incidents of academic dishonesty will not be tolerated and students guilty of such conduct are subject to severe disciplinary measures. Additional information is located in the [ACC Student Handbook](#).

N. CLASSROOM CONDUCT

It is the right of each student to participate in his or her learning, and it is the responsibility of each student to not interfere with the learning of other students. It is the expectation of the college that each student assumes the responsibility to follow college policies and procedures governing classroom conduct on campus and online. Instructors are authorized to establish within reason, rules of conduct within the classroom. Instructors may ask a student to temporarily leave the classroom whenever the behavior is believed to be disruptive or inappropriate. Additional information is located in the ACC Student Handbook. Additional information is located in the [ACC Student Handbook](#).

O. EVALUATION OF INSTRUCTION

Alvin Community College is dedicated to student success. As part of its ongoing improvement efforts, students will provide input for each course prior to the end of the semester enrolled. Evaluations will be completed in either online or paper format as directed by the Office of Institutional Effectiveness & Research.

P. ACC ACADEMIC SUCCESS AND SUPPORT SERVICES

The [ACC Tutoring/Learning Lab](#), located upstairs in building A, provides students with a variety of services including tutoring (math, writing, and other disciplines); computers and printers; and tables/carrels. Call 281-756-3566 or visit the **ACC Tutoring/Learning Lab Website** for more information.

The [ACC Library](#) is an excellent source for research and writing help. Quiet rooms are available for studying and doing class work. For more information, visit the **ACC Library Website** or call 281-756-3559.

[ACC Counseling Services](#) assist students with issues that may negatively impact academic success. To contact a counselor, call the office of Advising Services at 281-756-3531.

Americans with Disabilities Act

ACC complies with ADA and 504 Federal guidelines by affording equal access to individuals who are seeking an education. Students who have a disability and would like classroom accommodations must register first with the Office of Disability Services, A 136, or call 281-756-3533. Instructors are not able to provide accommodations until the proper process has been followed.

Assessment and Care Team (ACT)

The Assessment and Care Team is committed to improving community safety through a proactive, collaborative, coordinated, objective, and thoughtful approach to the prevention, identification, assessment, intervention and management of situations that pose a threat to the safety and well-being of the campus community. To educate and empower all members of the College community, resources and procedures are in place to prevent, deter, and respond to concerns regarding acts of violence. Alvin Community College offers assistance to departments and individuals in detecting indicators for concern and resources to protect themselves and their environments.

The Alvin Community College ACT accepts reports regarding any individual or incident at any time through an online referral form on the Assessment and Care Team page at <http://www.alvincollege.edu/ACT>, direct email to: ACareTeam@alvincollege.edu, or by contacting the Alvin Community College Police Department at 281-756-3700 or

832-250-3365 (after hours).

Educational Technology

Alvin Community College educational technology includes [MY Blackboard](#) for distance delivery and web-enhancement of courses. Technical support can be obtained by completing the [Online Support Form](#).

All students have a [WEBACCESS](#) account to access numerous college services. If you need information or experience problems with WebACCess, your password, computers in a campus lab, or college email, please call the Help Desk at 281-756-3544 or email helpdesk@alvincollege.edu.

Q. MENTAL HEALTH COUNSELING AND SUICIDE PREVENTION SERVICES

As a student, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating, and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. Advising services employs two Licensed Professional Counselors who can assist students with issues that negatively impact academic success. Consultation and referrals are confidential. The Counseling Referral form is located at:

<http://www.alvincollege.edu/CounselingServices.aspx>

Emergencies:

If you or someone you know at ACC feels overwhelmed, hopeless, depressed, and/or is thinking about dying by suicide, supportive services are available by requests at the Enrollment Services Center or by calling 281-756-3531, ask for a Counselor. You may also call the National Suicide Prevention Hotline 1-800-273-8255. This is a 24 hour, toll free, confidential suicide prevention hotline available to anyone in suicidal crises or emotional distress. If, however, you or someone you know is in an immediate crisis, go to the nearest Emergency Room, or call 911.

R. DISCLAIMER

(Faculty reserve the right to modify this syllabus as needed and will notify the students of any changes using email or Blackboard.)