

Clinical Instructor: Rhonda Neiman
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A. COURSE DESCRIPTION

This course provides the student with patient contact in an EEG lab. The student will have the opportunity to observe, perform (under supervision), and evaluate EEGs.

B. COURSE GOALS & OBJECTIVES

To train students to become competent and experienced neurodiagnostic technologists for entry level employment in the NDT field.

C. STUDENT OBJECTIVES

The outcome for this clinical experience will prepare the student for the next level of clinical in the summer. The goals for this rotation are for the student to be able to:

- Measure and apply electrodes accurately and timely. This will provide increased hands on time to enhance proficiency, efficiency, and confidence with both EEG equipment and application skills.
- Perform routine testing.
- Recognize normal EEG activity and be able to recognize some basic abnormalities.
- Recognize artifact and be able to correct artifact.
- Develop professional attitudes for health care delivery

D. COURSE COMPETENCIES

1. The student provides a safe recording environment by:

- a. verifying identity of patient;
- b. cleaning electrodes after each procedure;
- c. following universal precautions for infection control;
- d. attending to patient needs appropriately;
- e. recognizing/responding to life-threatening situations;
- f. being certified to perform CPR;
- g. complying with lab protocols for emergency and disaster situations;
- h. complying with hazardous material handling procedures;
- i. maintaining instrument/equipment in good working order; and
- j. taking appropriate precautions to ensure electrical safety.

2. The student establishes rapport with the patient and patient's family by:

- a. using personal communication skills to achieve patient relaxation/cooperation;
- b. explaining all test procedures including activation procedures;
- c. explaining the electrode application method (paste, collodion, etc.);
- d. interacting on a level appropriate to patient's age and mental capacity; and
- e. maintaining respect and patient confidentiality.

3. The student evaluates the patient to:

- a. determine the patient's mental age, mental state, and comprehension level;
- b. note the patient's overall physical condition;
- c. ascertain the patient's capacity to cooperate with activation procedures;
- d. determine if hyperventilation is contraindicated;
- e. accommodate for disabilities or special needs;
- f. document unusual or inappropriate behavior suggestive of seizure or other event; and;

4. The student prepares a basic data sheet ("tech sheet") that includes:

- a. patient information (name, age, ID number, doctor, etc.);
- b. recording time, date, and graduate's name or initials;
- c. noting pertinent patient history and familial medical history;
- d. listing current medications/sedation;
- e. noting time of last meal;
- f. noting time, date, aura, and circumstances of last seizure or symptoms;
- g. specifying the patient's mental, behavioral, and consciousness states;
- h. diagramming skull defects or anomalies (if any); and
- i. diagramming any modifications in electrode placement.

5. The student's electrode application follows a method that includes:

- a. measuring and marking the head following the 10/20 measurement system;
- b. adjusting electrode placement for anatomical defects or anomalies;
- c. prepping patient's scalp prior to electrode application;
- d. applying electrodes with paste or with collodion and electrolyte; and
- e. verifying electrode impedances are balanced and below 5,000 Ohms.

6. The student has basic knowledge of analog EEG technology.

7. The student documents the working condition of a digital EEG instrument by:

- a. calibrating system amplifiers;
- b. verify standard filter settings;
- c. verify sensitivity settings;
- d. inputting a biological (bio-cal) signal to all channels; and
- e. corrects or reports deviations as appropriate.

8. The student obtains a standard EEG that includes:

- a. at least 20 minutes of technically acceptable recording (120 pages);
- b. eye opening and closing to check effects of stimuli on EEG;
- c. hyperventilation for a minimum of 3 minutes;
- d. photic stimulation at frequencies appropriate for history & reactivity;
- e. mental stimulation/assessment procedures;
- f. periodic checks of electrode impedance;
- g. natural drowsiness and sleep, if possible;
- h. notations of montage, filters, paper speed, & sensitivity setting changes; and
- i. notes on observed behavior, clinical seizure manifestations, etc.

9. The student differentiates artifacts from cerebral waveforms by:

- a. recognizing possible artifactual waveforms;
- b. documenting (on the recording) patient movements;

- c. applying/recording leads for eye potentials or other physiological potentials (ie. respiration, EMG);
- d. applying/recording leads for ECG;
- e. replacing electrodes exhibiting questionable activity or contact; and
- f. troubleshooting for possible electrical interference.

10. When the EEG recording is finished the student:

- a. removes electrode paste/glue from the patient's scalp and hair;
- b. describes clinically significant behavior;
- c. documents sedation used, dosage, and effects (if applicable); and
- d. reviews EEG for appropriate documentation of amplifier settings & montage changes

E. PRE-REQUISITES/CO-REQUISITES-

ENDT1345, ENDT1350 (pre-requisites)
PSGT1310, ENDT2425 (co-requisite)

F. TEXTBOOK INFORMATION

Clinical Manual

G. COMMUNICATING WITH YOUR INSTRUCTOR

The preferred method of communicating with your instructor is through the following email: rneiman@alvincollege.edu . You may call me at 281-756-5643. You may text me at 281-415-5307. Please leave your first and last name, a phone number or an e-mail address where I can contact you and explain what you need to discuss with me. I will normally respond within 24 hours Monday-Thursday and by the next business day on Friday-Sunday.

H. CLASS ATTENDANCE POLICY

See Clinical Manual Policy regarding attendance and absences.

I. COURSE SCHEDULE

The course schedule will be distributed during the first day of class.

J. DISCLAIMER

The instructor reserves the right to modify this syllabus as needed and will notify the students of any changes using the ACC e-mail or MyBlackboard e-mail or announcements.

K. EXAM POLICY

There will be a comprehensive written final given at the end of the semester. This exam will be over material covered in the previous and current semester NDT courses. The exam may contain multiple choice, short answer, matching and essay questions.

L. GRADING SUMMARY

COMPETENCY EVALUATIONS

Performance Evaluations: Each student will be required to be evaluated after they have performed at least the minimum number of observations and performances of a procedure. Your clinical instructor will observe you performing the procedure, assess your performance of the procedure, and test your knowledge of the procedure. This will be done using Competency Evaluations. Your clinical instructor will then complete the Performance Evaluation for that procedure and sign the form. If you do not perform the procedure satisfactorily, your clinical faculty can decide at which level you are deficient.

COMPETENCY EVALUATION GRADING SCALE

95-85 = Passed/Satisfactory

84-80 = Needs Improvement

79-75 = Unsatisfactory, (student needs to be re-evaluated)

Students must receive a minimum grade of “Satisfactory” on all competency evaluations. Evaluations with a grade lower than a “Satisfactory” must be repeated. **ALL** competency evaluation grades will be averaged at the end of the semester. A competency evaluation grade of less than “Satisfactory” at the end of the semester in any skill will result in the student receiving an incomplete (I) for the course. Student may attempt to be checked off on competency evaluations a maximum of two (2) times. Each attempt must be on a different date and within an acceptable time frame as designated by the instructor. Failure to be checked off after a second attempt in any skill will result in the student receiving an “F” for the course.

BEHAVIORAL EVALUATIONS

A behavioral evaluation is required to be completed at the end of each rotation. The evaluation must be completed by the clinical coordinator and the preceptor who spent the majority of the clinical time with the student and must be signed by the preceptor.

Grading Scale for Behavioral Evaluations

<u>Rating</u>	<u>Scoring Criteria</u>
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

	% of final grade
<i>Competency Evaluations</i>	40%
<i>Clinical Written Forms & Assignments</i>	20%
<i>Comprehensive Final Exam</i>	40%
Total	100%

Percent	Grade
100-90%	A
89-80%	B
79-75%	C
<75%	F

Your grade is based on the average you receive on all course assignments and activities. Always notify your instructor if you are concerned with your grades or your status in the class.

I.....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”.

.....Withdrawal. 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.

M. ACADEMIC SUCCESS AND SUPPORT SERVICES:

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 with the Office of Disability Services, A 136, (281)756-3533. Instructors are not able to provide accommodations until the proper process has been followed.

Behavioral Intervention Team (BIT) – Letting someone know

The Behavioral Intervention Team (BIT) at Alvin Community College is committed to improving community safety. College faculty, staff, students and community members may communicate safety concerns to the BIT team by email, bitcore@alvincollege.edu or through an electronic reporting option located on the [BIT page](#) of the college website.

The **ACC Learning Lab**, <http://www.alvincollege.edu/TutoringLearningLab.aspx>, located upstairs in building A, provides students with a variety of services including tutoring (math, writing, and other disciplines); computers and printers; a testing facility; and tables/carrels for studying. Learning Lab hours are M-TH 8:00am – 9:00pm and F 8:00am – 4:00pm. Testing hours are M-TH 10:00am – 7:30pm (Tests must be completed by 8:30pm) and F 10:00am – 12:00pm (Tests must be completed by 1:00pm). *Closed on Fridays in the Summer. Call 281-756-3566 for more information.

The **ACC Library** website: <http://www.alvincollege.edu/Library.aspx>. The ACC Library is an excellent source of assistance for writing the required research paper.

MyBlackboard -Any technical problems or issues with MyBlackboard should be directed to the Distance Education Department at de@alvincollege.edu. Include your first and last name, student ID number and a description of the problem. Students will not be penalized if there is an interruption in MyBlackboard service and the instructor is notified of such an issue by the Distance Education Department.

WEBACCESS, Passwords or ACC Computer Lab Information- [Help Desk Website](#) or contact the IT Dept. Help Desk at 281-756-3544.

N. 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.