NDT A116: CLINICAL EXPERIENCE 1

Item	Value
Curriculum Committee Approval Date	10/05/2022
Top Code	121200 - Electro-Neurodiagnostic Technology
Units	5.5 Total Units
Hours	274 Total Hours (Lecture Hours 18; Lab Hours 256)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Pass/No Pass (B)

Course Description

Beginning clinical practice of electroencephalographic testing on patients at various affiliated neurodiagnostic labs. This will include observation, application of electrodes, performance of EEG testing on clinical patients, medical recordkeeping, and clinical history reporting. Students must purchase a uniform for this course. PREREQUISITE: NDT A110 and ALH A115. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Perform a complete routine EEG examination under direct assistance according to ACNS guidelines with an accurate electrode application time of 35 minutes or less, and recognize normal and basic abnormal EEG activity while demonstrating professional health care attitudes.

Course Objectives

- I Behavioral Performance- During the time the student is assigned to the clinical area, the student will be able to:
- I. 1. Demonstrate a willingness to adhere to the individual lab policies and regulations.
- I. 2. Adhere to appropriate dress code, being neat, well groomed, and appropriate for clinical while adhering to the Orange Coast College catalog policy for student conduct.
- I. 3. Assume responsibility for notifying the department supervisor when unable to attend or when expected to be late.
- I. 4. Make up any time missed, due to absence or tardiness.
- I. 5. Assume responsibility for arriving to clinical on time and must stay allotted time per the lab schedule.
- I. 6. Conduct self in an appropriate ethical manner as a health care professional. This includes maintaining patient confidentiality and safety at all times.
- I. 7. Seek instruction and use criticism to improve performance.
- I. 8. Demonstrate a positive attitude to the clinical experience. This includes making clinical performance a priority in their education.
- II Clinical Skills Performance - The student will be able to:
- II. 1. Relate to patients in a positive manner to encourage patient cooperation and enhance attitude. This includes good communication skills in explaining all procedures and expectations of the patient.
- II. 2. Maintain work area in an orderly manner. Obtain and replace supplies as needed and keep work areas neat and clean.
- II. 3. Calibrate the machine within 100% accuracy. Able to make all necessary adjustments to the instrument for accurate recordings. Includes the proper use of cal voltage related to sensitivities and calibrating all settings used during a test.
- II. 4. Learn the lab montages by the second week.
- II. 5. Take valid patient data.
- II. 6. Apply electrodes accurately within 40 minutes in the first 8 weeks and to 35 minutes by the end of semester, and get the patients test performed in an acceptable time as per the lab schedule.
- II. 7. Use appropriate machine settings to provide optimal recording as necessary.
- II. 8. Identify normal EEG activity with 75% accuracy in the first 8 weeks and to 90% by the end of the semester.
- II. 9. Identify and monitor artifacts with 60% accuracy in the first 8 weeks and to 75% by the end of the semester.
- II. 10. Recognize abnormal events such as slow waves, spike /or sharp activity, and other common discharges to about 50% by the end of the semester, but only minimally expected in the first 8 weeks.
- II. 11. Accurately document all work, including calibrations, instrument settings, clinical findings, modifications to recording, and appropriate patient information.
- II. 12. Write a description of each EEG performed. Each should be reviewed by a technologists, and be at least 50% accurate.

Lecture Content

This is the first series of clinical practice for the NDT student. Students are required to meet for once per week for case study review during lecture sessions. Topics will include: Review of weekly case studies ACNS Guidelines for EEG records NDT Equipment Recording parameters Troubleshooting EEG Record Review Normal Abnormal EEG activity

Lab Content

This course will integrate knowledge and skills learned in NDT A110 and expanded upon in NDT A115. The exposure of clinical patients will vary on location and lab scheduling. Introduction to the clinical NDT laboratory Clinical Orientation Lab Policies and Procedures OP and IP lab Dress Code Patient Scheduling Attendance Setup/cleanup Infection Control Cleaning/Disinfection of equipment Isolation protocols NDT instrumentation Familiarization of NDT instrumentation and settings for optimal recording Clinical montages 10/20 EEG placement Performance Objectives Patient History EEG electrode application Identification of artifacts Identification of normal waveforms Identification of normal variants Initial identification of basic abnormal waveforms Documentation Technical Impressions Behavioral Objectives Effective communication with patients and family Exhibiting professional attitudes towards clinical preceptors/patients/other healthcare professionals.

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)

- DE Live Online Lab (04S)
- Field Experience (90)

Instructional Techniques

Supervised clinical practice at affiliated hospitals. Students perform as if on the job by testing patients. Procedure demonstration, hands-on practice, return skill demonstration with continual feedback on performance.

Reading Assignments

Review ACNS guidelines and coursework as needed for comprehension and execution of acceptable NDT studies. 15-20 minutes/week

Writing Assignments

Required to make written reports of patients clinical history, test results, testing parameters, and required record keeping as per lab protocol. All reporting will be reviewed by technical staff, and feedback will be given to the student. This is typically done during clinical hours.

Out-of-class Assignments

Daily procedure log for all procedures observed and performed. 15-30 minutes/week dependent on case load. This is typically done during clinical hours.

Demonstration of Critical Thinking

Montage modification Modified electrode application Equipment troubleshooting Adaptation to individual patient needs

Required Writing, Problem Solving, Skills Demonstration

Reports: patients clinical history, test results, testing parameters, and required record keeping as per lab protocol. Mid-Clinical Self Evaluation Technical Impressions Daily entries into Procedure Log Electrode application and performing complete EEG studies according to ACNS guidelines.

Eligible Disciplines

Diagnostic medical technology-diagnostic medical sonography, neurodiagnosti...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Manuals Resources

1. Banoczi, W. and Liang, T.. Neurodiagnostic Technology Program. Clinical Course Student Handbook, Orange Coast College , 07-20-2020

Periodicals Resources

1. Sinha, Saurabh R.*; Sullivan, Lucy†; Sabau, Dragos‡; San-Juan, Daniel§; Dombrowski, Keith E..; Halford, Jonathan J.¶; Hani, Abeer J.#; Drislane, Frank W.**; Stecker, Mark M.††. American Clinical Neurophysiology Society Guideline 1: Minimum Technical Requirements for Performing Clinical Electroencephalography, Journal of Clinical Neurophysiology Volume 33 Issue 4 2016

Other Resources

1. Text as required by prerequisites, and course materials available in the bookstore or provided by coordinator.