Welcome to the Neurology Clerkship! This clinical neurology course satisfies the graduation requirements of the Oregon Health & Science University School of Medicine.

COURSE GOALS:

1. To familiarize the student with the clinical presentation of common neurological disorders. History taking skills to elicit precise symptoms and to distinguish clinical syndromes will be emphasized.

2. To develop in the student a facility with the neurologic exam. Both the detailed neurological examination and features of the neurological examination for practical application in general medical practice and allied neurological specialties such as orthopedics, and physical medicine will be taught.

3. To have the student acquire a sound knowledge of the differential diagnosis of common neurologic disorders, the laboratory evaluation and clinical management of these diseases. Categorically included are: stroke, seizure disorders, headache, movement disorders, multiple sclerosis, stupor and coma, diseases of muscle and nerve, dizziness, and dementia.

4. To introduce the student to the diagnostic evaluation and management of urgent neurological or neurosurgical illness.

5. To convey the indications for and to acquire skills in performing lumbar puncture and to appreciate both the clinical value and the limitations of technologies such as: electroencephalography, evoked potentials, computerized axial tomography (CT), magnetic resonance imaging (MRI), arteriography, myelography, and radionucleide imaging.

6. To acquaint the student with the new frontiers in neurology and many of the cutting-edge issues in neuroscience.

7. To introduce the concepts of neurologic consultation and an understanding of the role of the consultant in clinical problem solving.

RESOURCES:

Required reading:
- OHSU Neurology 721 syllabus

Recommended reading (provided during rotation):

Recommended references from OHSU Library:
- Rowland. Merritt’s Neurology. 2005

Electronic resources:
- [www.medlink.com](http://www.medlink.com) – UpToThe specific to neurology
- [www.aan.com](http://www.aan.com) – American Academy of Neurology website
  - Education site has practice parameters
COURSE DESCRIPTION:

The course is divided into three principal components: Inpatient Service, Outpatient Clinics, and Didactic Sessions. It is designed to give the student a broad overview of clinical neurology. Students assigned to the Bend or Eugene away rotation will have a mix of inpatient and outpatient activities to which you will be oriented when you arrive at those sites.

Inpatient Service (3 weeks): Each student is assigned to an inpatient ward two week experience either on the VA, OHSU, Neurosurgery, or Pediatric Neurology service with an additional 1 week on either the NSICU or Stroke. The student will evaluate patients admitted to the ward or seen on the consultation service, and will present the case to the attending physician during rounds. The student will be expected to write an admitting history and physical examination along with case analysis for each patient they are assigned. The student will make rounds with the house staff and actively participate in the care of patients he or she is assigned. Students are required to write daily notes on their patients. An awareness of the status of their patients during hospitalization as well as pertinent results of laboratory and radiological testing is expected from the student. Students are especially encouraged to undertake independent in-depth reading and literature search on neurologic disorders that pertain to their patients. Participation may also include performance of simple diagnostic tests such as lumbar puncture.

Each student is expected to be present for daily rounds Monday through Friday. Students will be expected to be available to accept a new patient until 5:00 pm. Students will be on call two weeknights until 10:00 pm and one weekend for team rounds from 8:00 AM – 12:00 PM (both Saturday and Sunday). Students assigned to the NSICU may take their call with the NSICU team. In order to allow greater continuity in patient care it is generally expected that you will perform your weekend call time while you are assigned to the inpatient wards. Students should read extensively and be familiar with the disease processes, complications, and potential therapies of the patients they have seen.

Outpatient Clinic (1 week): Each student will be assigned to neurology clinic for one week. Students are required to attend clinics according to the schedule. Locate the responsible faculty and introduce yourself as a neurology clerkship student. The clinic provides a valuable opportunity to see a wide range of outpatient neurological diseases in a relatively short time, even though your role is largely that of an observer. The degree of active participation (e.g., performing your own history and PE) varies depending on the patient schedule and the individual faculty. Ideally the student will be allowed to see patients individually and discuss the case with a staff. Feel free to ask questions. Nearly all neurology faculty are accustomed to having students in clinic, and are happy to discuss relevant neurological issues. It is nearly impossible to keep track of occasional schedule changes and cancellations. In the unlikely event that you run into a canceled clinic, please feel free to join another ongoing clinic. Also, bring something to read in case there is a delay in patient arrival.

Didactic Sessions: In the course of his/her ward assignment; it is unlikely that each student will be exposed to all the important aspects of neurological diseases. There are one-hour lectures at least three times a week. These are intended to introduce students to the approach of common neurological problems, through didactic sessions and case vignettes. The students will also learn the fundamentals of the neurological examination. This is an important portion of the clerkship, and all students are expected to attend. These didactic sessions take priority in case of scheduling conflicts.

Clinical Conferences: Each student is encouraged to attend as many of the regularly scheduled neurological conferences as possible. Attendance by all students is expected at Neurology Grand Rounds, Neuroradiology Conference, Thursday Noon Conference, and Friday Neuroscience Conference.
REQUIRED ASSIGNMENTS:

Clinical Mechanism of Disease Patient Write-Up: Each student will complete a formal write up of a patient they have encountered during the first week of the clerkship. The write up is due by the third Friday of the rotation. This should be typed as a word document with no more than 1,500 words and submitted via email to Kelsey Cearley, neuroclerkship@ohsu.edu

The case report should follow the guidelines for submission to the academic journal ‘Neurology’ for Clinical/Scientific Notes which can be found at this website: http://www.neurology.org/site/misc/auth2.xhtml#SPECIFICATIONS

The one change in these guidelines is that you will have a 1,500 word limit. As this is a case report format, you will need to be concise, yet still display a depth of the topic you are discussing. The case report should consist of a brief description of a case you have seen while on the neurology clerkship. This case description should include a brief history and a description of the neurological examination. As your word count is going to be limited, your history and physical examination notations are likely going to be shorter than you would typically write in a chart note, and will be more confined to pertinent positives and negative findings. You will then need to present about a paragraph outlining differential diagnosis and diagnostic studies performed on this person.

Neurological examination passport: Each student will have the entire neurological examination observed by a faculty member. As we realize that faculty members do not always have the time to watch a complete physical examination, we have established a passport system. With this system, the student has the opportunity to have a faculty member observe a single component of the examination. If the student is felt to have competently demonstrated that portion of the examination, the faculty member will sign off on the passport form. Later a student may then have another faculty member observe a different portion of the examination. Through the course of the clerkship, the student is responsible for having all of the portions of the neurological examination observed and signed off. For example, student Luke has attending Dr. Vader observe the cranial nerve examination. Luke then asks Dr. Vader to sign the cranial nerve part of the passport. Luke the next day has Dr. Yoda observe him doing the strength testing, and Dr. Yoda signs on the strength testing line. By the end of the rotation, Luke has a signature on each part of the neurological examination, and he feels super to have mastered this part of his training. (Then Luke finds out Dr. Vader is his father, and throws himself into a wind tunnel, and he then drops out of medical school and goes to some naturopathic school).

Respite Visit: Attendance is required to pass this course. Physicians will work with patients who have dementia and/or their family caregivers in almost every area of health care delivery. Compassionate competence is required to partner with families who are coping with the ongoing health needs and care giving issues that arise over the course of the disease. This program is offered through the OHSU Aging and Alzheimer Disease Center. The visit takes place at the Marie Smith Center, an off campus adult day center site in Northeast Portland. After observing and participating in the Marie Smith Adult Day Services program, students will discuss observations and experiences, learn about community resources for patients with dementia and their families, and discuss patient and family needs. If you have any questions, please contact Mary Ruhl at (503) 494-6370.

The Marie Smith Center is located at 4616 N. Albina Ave. Portland, OR. (503) 335 – 9980 – www.voaro.org

Directions: Take 1-5 North to the Killingsworth Exit, Turn right onto Alberta Street, Turn right at the first light, onto Albina Ave. In a couple of blocks you will see Marie Smith Center (red building) on the left. Street parking is generally available.
STUDENT GRADING:

Total grade will be determined based on these three activities: Clinical evaluations (approximately 75%); examination score (approximately 15%); and patient write-up (approximately 10%). Although not formally graded, participation in didactic sessions may influence grades which are felt to be borderline. If a student receives a failure on any element of the course, the highest final grade achievable is marginal, and remediation will be required.

Evaluations: Evaluation of the student's performance, knowledge base, and clinical skills will be provided by the residents and attending on each service. The Clerkship Director will be responsible to gather together these evaluations and provide feedback to each student. Although there are individual differences in emphasis, most attending and resident staff look for motivation, competence, and responsibility in a student. The student will have ample opportunity to demonstrate mastery of the history and neurological examination skills with a Neurology staff. The neurological examination passport must be completed for a student to pass this course.

Patient write-up: Students are required to complete a patient write-up by the end of the third week. Description is found above.

Final examination: Students are required to take the Clinical Neurology Exam from the National Board of Medical Examiners (NBME) which consists of 100 multiple choice questions. Students are given 2 1/2 hours to complete the examination. The score from the exam will be incorporated into the students’ final grade. The final grade assignment is score is determined by national percentile rank as written below.

Honors 75th percentile to 100th percentile
Near Honors 50th percentile to 74th percentile
Satisfactory 6th percentile to 49th percentile
Marginal - 3rd to 6th percentile
Failing - raw score less than 64

Final RESOURCE:
http://www.nbme.org/pdf/SubjectExams/SE_ContentOutlineandSampleItems.pdf
This gives an overview of what broad topics are covered and what percentage of the exam covers those topics.