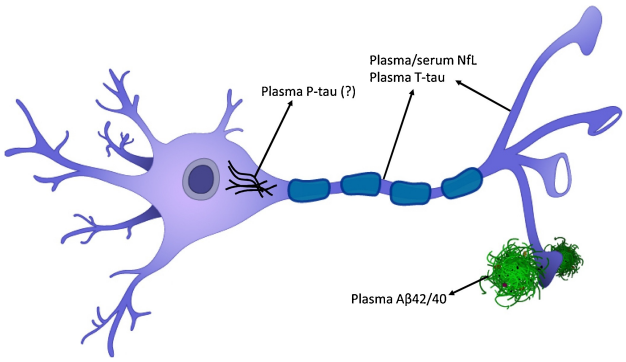
Neuroepidemiology



3 cr. graded

Instructor: Walter A. Kukull, PhD, Professor (he/him)

Mon/Wed 11:30am--12:50pm T-359 HSB

Office: F 261 HSB (please email **kukull@uw.edu (mailto:kukull@uw.edu)** for appointment)

Lectures and discussion will be hosted by principal instructor and expert guest lecturers. These sessions will address background and current understanding of various neurological diseases and conditions. (Current articles relevant to lectures will be posted several days in advance of the scheduled lecture. Also Powerpoint .pdf slides of lectures will usually be posted.) The Lecture schedule and lecturers are shown here: **Schedule_2020.pdf (https://canvas.uw.edu/courses/1354907/files/60790703/download?wrap=1)**

A broader description of the course as well as specific accommodations are presented under the Canvas **Syllabus** heading.

Please go to **"Modules"** on Canvas to see individual lecture materials (e.g., powerpoint slides and any background article .pdf that are submitted by the lecturers. These will usually be posted a few days prior to the lecture itself.)

Learning Objectives

1. To discuss Neurological diseases and conditions and to become acquainted with experts involved with such research at UW.

2. To determine applicability of core epidemiologic methods for the study of neurological conditions.

3. To examine current "state of the art" for selected conditions and the current research challenges or gaps in knowledge.

4. To become acquainted with commonly used techniques for the study of neurological conditions (e.g., neuroimaging, genomics, neuropathology)

5. To become familiar with of NIH grant process and "research plan" structure/content.

Class Sessions: Class sessions will consist of lecture and interactive discussion. Understanding of clinical and technical content as presented by experts will provide a basis for students to identify research challenges, gaps in knowledge and to apply core epidemiologic methods toward the study of neurological

diseases. Interactive discussion is key to collaborative research, thus, students will be expected to participate in that effort.

Project Paper: (see also "Assignments") Students are expected to choose a neurologic disease/condition topic (generally from among the content areas presented in the course) and based on lectures and review of current research literature, to construct a succinct (~5pp) paper describing relevant background to a current gap in knowledge which they would propose to investigate coupled with the appropriate epidemiologic methods for that investigation. Discussions in class concerning each student's potential Project topic will allow students to share their experience and sharpen their views.

The Paper will have three elements:

1) Systematic Review: How did the author search, identify and evaluate knowledge related to their topic in order to arrive at their scientific question.

2) Interpretation: What are the best/feasible study design and analytic methods? How would the potential findings contribute to the knowledge-base related to their research question?

3) Future Directions: What are the important scientific question(s) that are necessary to expand, confirm or refute the findings of the proposed research topic?

A the end of the course **students will make brief 5-10 minute presentations of their chosen topic** to the class (e.g.,3-5 Powerpoint slides).

Paper will be due on the last day of class---March 11, 2020.

Grades: Grades will be based on class participation and interactive discussion with lecturers and class (60%) plus Topic Presentation and written Paper (40%).

Final Exam: There will be No Final Exam.

Course Syllabus

Jump to Today ✎ Edit

This course is designed to increase your knowledge of Neurologic diseases including their clinical syndromes and their etiologic bases. You are expected to have some basic knowledge of epidemiologic methods to apply to the content provided in the course, in order to propose future research.

The field and our understanding of Neurologic diseases is changing rapidly thus most of the content presented by lecturers will be supported by their best compilation of current articles (posted as .pdf in the course "Modules" on canvas.

Recommended text: Nelson LM, Tanner CM, Van Den Eeden SK, McGuire VM (Eds): *Neuroepidemiology: From Principles to Practice*. Oxford University Press, 2004.

Please contact me if you wish to discuss any aspect of the course outside of class time. The easiest way to do this is by email (**kukull@uw.edu (mailto:kukull@uw.edu)**) so that we can set a time to meet either in my Epi Dept office or my NACC (research) office (4311-11th Ave NE). We can either meet in-person or set a time for a telephone call.

Active participation in class discussions (about the formulation of their own projects papers) as well as asking questions of expert lecturers are viewed as a necessary part of the learning experience; please participate in such discussions to enhance everyone's understanding. **Schedule_2020.pdf**

You will be required to create a brief paper (~5 pp) describing relevant background and potential gaps in knowledge of a specific neurologic disease or condition (Preferably related to one discussed in class). You will apply epidemiologic methods to the study of this identified area. We will discuss your plans for the paper in class to gain insights from class members as well as the instructor.

The Paper will have three elements:

1) Systematic Review: How did the author search, identify and evaluate knowledge related to their topic in order to arrive at their scientific question.

2) Interpretation: What are the best/feasible study design and analytic methods? How would the potential findings contribute to the knowledge-base related to their research question?

3) Future Directions: What are the important scientific question(s) that are necessary to expand, confirm or refute the findings of the proposed research topic?

Students will Present their papers during the last few class sessions. For example, Powerpoint presentations including ~3-5 slides or 5-10 minutes.

The Paper will be Due March 11, 2020

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"The University of Washington acknowledges the Coast Salish people of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Suquamish, Tulalip and Muckleshoot nations."

Diverse backgrounds, embodiments and experiences are essential to the critical thinking endeavor at the heart of University education. In SPH, students are expected:

1. *To respect individual differences, which may include, but are not limited to, age, cultural background, disability, ethnicity, family status, gender, immigration status, national origin, race, religion, sex, sexual orientation, socioeconomic status and veteran status.*
2. *To engage respectfully in the discussion of diverse worldviews and ideologies embedded in course readings, presentations and artifacts, including those course materials that are at odds with personal beliefs and values.*
3. *To encourage students with concerns about classroom climate to talk to their instructor, adviser, a member of the departmental or SPH EDI Committee, the Assistant Dean for EDI, or the program's director.*

Access and Accommodations:

Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

*If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but are not limited to mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or **uwdrs@uw.edu** (mailto:uwdrs@uw.edu) or **disability.uw.edu.** (http://depts.washington.edu/uwdrs/) DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.*

Religious Accommodations: Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/) (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/) . Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/) (https://registrar.washington.edu/students/religious-accommodations-request/)

Bias Concerns: The Office of the Dean has a **student concern policy** (https://sph.washington.edu/students/student-concern-policy) , a faculty concern policy and standard HR procedures for staff concerns. Our 2018 climate survey states that most people in SPH do not report bias incidents because they do not know where to go. Students are encouraged to report any incidents of bias to someone they feel comfortable with, including instructors, advisers or department staff. They can email **dcinfo@uw.edu** (mailto:dcinfo@uw.edu) for immediate follow up. Bias concerns can be anonymously and

confidentially reported at this link **https://sph.washington.edu/about/diversity/bias-concerns (https://sph.washington.edu/about/diversity/bias-concerns)** . Data is collected by the Assistant Dean for EDI and the Director of Program Operations for Student and Academic Services and tracked for resolution and areas are identified for further training.

Course Summary:

Date	Details	
Wed Mar 11, 2020	**Presentation (Mar 4-11) in Class (https://canvas.uw.edu/courses/1354907/assignments/5150160)**	due by 11:59pm
	Project Paper (https://canvas.uw.edu/courses/1354907/assignments/5150051)	due by 11:59pm