BIOST 508 A
Biostatistical Reasoning
for the
Health Sciences
Winter 2018
Syllabus
Revised Jan 26, 2018

PREREQUISITES: EPI 511; or permission of the instructor

HOURS:
Lecture: M-W-F 9:30-10:20, T-639 Health Sciences
Discussions:
Section AA: W 1:30-2:20, D-209 Health Sciences
Section AB: Th 10:30-11:20, T 478 Health Sciences
Section AC: F 8:30-9:20, T 478 Health Sciences

INSTRUCTOR: Barbara McKnight, Ph.D.
Professor
Department of Biostatistics
F670 Health Sciences; 616-8078
e-mail: bmck [at] uw [dot] edu

Office Hours: Tuesday 1:00-1:50 pm
Friday 1:30-2:20 pm
or by appointment

TEACHING ASSISTANT: Anna Plantinga
Office: HS H657
Email: aplantin [at] uw [dot] edu

Office Hours: Monday: 10:30 - 11:20 am
Monday 1:00 – 1:50 pm

REQUIRED NOTES: Available on the class Canvas site


Oakley, Barbara: A Mind for Numbers: How to Excel at Math and Science (Even if you Flunked Algebra). Tarcher Perigree 2014. Not held by UW libraries, but relatively inexpensive on Amazon, less expensive elsewhere online, and may be available at your local independent bookseller.

COMPUTER SOFTWARE: We will be using the statistical package R (https://www.R-project.org) with front end R Studio (https://www.rstudio.com/). Both are available at no cost for Windows, Mac and Linux operating systems. Every student is required to have a laptop computer with these installed, and you are encouraged to install them yourself before the first discussion section. We will be using these for exercises in class and in discussion sections. If you do not own a laptop computer, you may borrow one for the quarter from the Student Technology Fee Loan Program (https://itconnect.uw.edu/service/student-technology-loan-program/)

CLASS WEBSITE: Homework assignments and lecture notes will be available on the class Canvas website. A class discussion board, maintained by the TA, will also be available on the TA corner there.

Files containing audio/video of each class session will be made available through a link on the Canvas website as soon as possible after class. If you must register late and need access before you register, please email me with a request using your UW email address so I can use your uwnetid to give you access.

ACCESS & ACCOMODATION: 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 and plan for 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 not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 uwdrs@uw.edu or 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.

BRING TO CLASS: To be able to participate in classroom exercises, please bring either a tablet or notebook and pen or pencil to class and a phone, tablet or laptop to participate in Poll Everywhere polls. Please bring a laptop to Discussion sections.
**HOMEWORK:**
Weekly homework (9 assignments, due starting week 2) will be due on Tuesdays at 5pm.

Homework should be turned in as a .pdf file to the assignments part of the class canvas site at https://canvas.uw.edu/courses/1123356.

I view the homework in this class as an important part of the process of your learning. You are encouraged to do the best work you can as soon as possible after necessary material is covered in class. It is fine to work together with others to solve problems and/or to ask Anna or me for answers to questions about how to do something in R. However, I expect that your written homework submissions give a summary of your personal choices and personal understanding of the answers, independent of others.

Homework will be marked 10 points if it represents a good faith effort to answer all parts of all questions, and 8 if all but one or two small parts of questions are answered with a good faith effort. Answers need not be correct if a good faith effort was made. More incomplete homework or homework containing computer output when it is not explicitly requested will be scored zero.

Also, because the material in this course is sequential, it is important that you complete homework and turn it in on time, so that you are ready for the discussion and new material that follow it. Late homework will not be accepted. Homework not turned in or not accepted will be scored zero.

**POLL EVERYWHERE:**
Starting next week, we will be using the Poll Everywhere audience response system (https://itconnect.uw.edu/learn/tools/polleverywhere/) in class. Please go to the site, click on “Poll Takers: Set Up Your Account and Log In”, and set up your account if you do not already have one. Please note that for your Poll Everywhere account to be maintained and integrated with Canvas, the email address you supply Canvas must be your UW email address.

**ACADEMIC INTEGRITY:**
Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity.

The UW School of Public Health (SPH) is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120). We expect you to know and follow the university’s policies on cheating and plagiarism, and the SPH Academic Integrity Policy. Any suspected cases of academic misconduct will be handled according to University of Washington regulations. For more information, see the University of Washington Community Standards and Student Conduct website.

Please note that all of the following count as academic misconduct: using a cellphone or other communication device during an exam, talking or sharing answers during an exam, copying others’ homework assignments.

**EMAIL:**
Barbara is happy to answer email questions when she has time, but cannot always promise prompt responses. Attending office hours or posting to the Discussion Board is usually the most expedient way to get answers. Anna usually is able to respond to email within 24 hours during the work week. We do not usually read email on weekends.

**LEARNING ENVIRONMENT:**
I take seriously my role as an advocate for your learning in this class. In addition to providing information, assignments and activities that I hope will support your learning, I will do my best to help us maintain the classroom as a supportive learning environment that respects diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion and culture. If you have a concern, I encourage you to communicate it to me. Please let me know ways to improve the effectiveness of the course for you personally, or for other student. If you make a request and you do not feel
my response has been adequate, please contact the chair of the department at heagerty@uw.edu.

To maintain a respectful and welcoming classroom environment, I ask that we all commit to showing respect to each other both inside and outside of class.
COURSEWORK:

Weekly Homework: Due Tuesdays, 5pm Pacific Time on the Canvas site in .pdf format

Poll Everywhere Response: Almost daily after the first week.

Midterm (closed book): Wednesday, January 31 in class 9:30-10:20. No calculator will be needed or allowed. One two-sided 8.5×11 inch piece of paper with your notes will be allowed as a memory aid, but the exam is timed so you should not rely on being able to consult it frequently.

Data Analysis Plan/Project: Due 9:00 am, Wednesday, March 7 on Canvas in .pdf format. To be assigned mid-quarter.

Final Exam (closed book): Wednesday, March 14, 8:30-10:20am. No calculator will be needed or allowed. One two sided 8.5×11 inch piece of paper with your notes will be allowed, but the exam is timed so you should not rely on being able to consult it frequently.

GRADING: Numerical course grades will be based on the final exam (35%), midterm exam (30%), data analysis project/plan (15%), homework (after dropping lowest score) (20%).