

**BIOST 513
Medical Biometry III
Spring 2019**

Syllabus

Version 2.0 (corrected Qianqian's email address)

April 3, 2018

(please also check web site regarding updates to office hours
and potential unanticipated changes)

All times mentioned below are PDT.

Hours: Lecture: MWF 9:30 – 10:20 T-747
 Location: <http://www.washington.edu/maps/#!/hst>

Discussions (locations to be determined between the two options):

AA – W 1:30 – 2:20 HS library classrooms A&B
 except on 4/3 it is room B only

AB – Th 8:30 – 9:20 HS library classrooms A&B
 except on 4/25 and 5/23 it is room C
 and on 5/9 it is T-359

AC – Th 11:30 – 12:20 HS library classrooms A&B
 except on 4/25 and 5/23 it is room C
 and on 5/9 it is SOCC-308

B – W 5:30 – 6:30 via zoom

Prerequisites: BIOST 511 and 512 or permission of instructor

Instructor: Susanne May, PhD
 Professor
 Department of Biostatistics
 H-655H Health Sciences
 email: sjmay (at) uw (dot) edu
 phone: 206-616-6342

office hours: Wed 3:00 – 4:00 (tentatively)
or by appointment or as announced on the class web site

Teaching Assistants: Andrew Humbert, email: ahumbert (at) uw (dot) edu
 Office hours: starting 4/5 Fridays 11:00 – 12:00pm

 Arjun Sondhi, email: asondhi (at) uw (dot) edu
 Office hours: starting 4/11 Thursdays 12:30 – 1:30pm

 Qianqian Chen, email: qc25 (at) uw (dot) edu
 Office hours: starting 4/11 Thursdays 10:00 – 11:00

Location for TA office hours: HS library

Texts: Kleinbaum and Klein, Logistic Regression: A Self-Learning Text (Third Edition) Springer, New York 2010. Electronic Version available through UW libraries (UW restricted).
<<http://link.springer.com.offcampus.lib.washington.edu/book/10.1007%2F978-1-4419-1742-3>>

Kleinbaum and Klein, Survival Analysis: A Self-Learning Text (Third Edition) Springer, New York, 2012. Electronic Version available through UW libraries (UW restricted).
<<http://link.springer.com.offcampus.lib.washington.edu/book/10.1007%2F978-1-4419-6646-9>>

The texts are meant primarily as supporting material. There will not be readings assigned out of the text books. The class notes will be the primary material and they will include topics/content that is not included in the books.

Other books of interest: Agresti: (Introduction to) Categorical Data Analysis, Wiley, 2012 (2007).

Collett: Modelling Binary Data. 2nd edition, Chapman and Hall, Boca Raton, 2003.

Collett: Modelling Survival Data in Medical Research. 3rd Edition Chapman and Hall 2014.

Dupont: Statistical Modeling for Biomedical Researchers. 2nd edition, Cambridge 2009.

Hosmer, Lemeshow and Sturdivant: Applied Logistic Regression. 3rd edition, Wiley, 2009.

Hosmer, Lemeshow and May: Applied Survival Analysis. 2nd edition, Wiley 2008.

VanBelle G, Fisher L, Heagerty P, Lumley T: Biostatistics: A Methodology for the Health Sciences. 2nd edition, Wiley, 2004.

Computer software: This course will use the statistical software R. R is free to download and use (<<http://www.r-project.org>>) without restriction. You may also find the R Studio (<<http://www.rstudio.com/>>) "front-end" helpful; this is also free. R is also available for use at the Health Sciences Library Computing Lab (<<http://hsl.uw.edu/topics/learning-commons>>). Documentation for R is available through R itself (<<http://www.statmethods.net/interface/help.html>>) with many online resources also available, such as the UCLA resources for learning R (<<https://stats.idre.ucla.edu/r/>>).

For this class I will attempt (together with the TAs) to provide all necessary commands as part of the lectures and discussion sessions. Nevertheless, you will need to be able to pick the right commands and are expected to make changes to the commands

yourself (such as using different file names, variable names etc.).

An excellent web site to learn (or learn more about) R is available here:

<<http://faculty.washington.edu/kenrice/rintro/indexSEA15.shtml>>

If you are planning to continue to Biost 536, it is highly recommended to use the above web site to prepare for the level of R expertise that will be expected in Biost 536 and other more advanced classes.

You are free to use any other statistical software, but neither the TAs nor the instructor will be able to provide support for the use of that software or answer questions regarding other statistical software. Note though that the above stats.idre.ucla.edu web site has lots of interesting teaching tools and book examples for a number of different statistical software packages.

Computer Lab:

Access to R is also provided on the PCs in the Micro Computing Laboratory in the Health Sciences Library. The lab is accessible whenever the library is open, except the lab closes one-half hour earlier than the library.

Class Website:

Homework assignments, lecture notes and recordings will be available on the class Canvas website. A class discussion board, primarily maintained by the TAs, will also be available.

If you are registered for the course, you should have automatic access through the Canvas link on your myUW web page. 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/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 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 or <disability.uw.edu>. 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, the 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.

Assignments: Weekly assignments will be given that are (likely) due at 5pm on Fridays on the Canvas web site in .pdf format. The due date for the first assignment will be April 12, 2019 at 5pm. Each assignment will be graded as

- 10 points if an effort has been made to answer all questions and there are no major concerns
- 9 points if an effort has been made to answer almost all questions or all questions have been answered but there was at least one major concern, TAs who grade the assignments will indicate any concerns and indicate those concerns that resulted in losing a point
- 0 points if effort failed to answer almost all question or there are more than one major concern.

Late assignments may receive partial or no credit depending on the circumstances.

Make sure to check the key for the assignments even if you received full points as we might not be able to mark all or minor issues during the grading process.

All the assignments in this class are viewed 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 requisite material is covered in class, and to complete the assignment exercises on your own, as much as possible. However, working together with others to solve challenging assignment problems is acceptable, as is asking questions of the TAs or instructor. It is nevertheless expected that your written homework gives a summary of your personal understanding of the answers, independent of others.

Assignments might not be new (compared to previous classes), nevertheless, as a graduate student I expect that you do not go searching for previous solutions or even look at them if you have access to them.

Coursework: In addition to the assignments, there will be two midterms (Mon 4/22 and Fri 5/17, the lower of the two midterm grades will be dropped), a data analysis project (due tentatively Thurs 6/6, 5pm) and a final exam (Wed 6/12, 8:30-10:20 in T-747).

Grading:

- 30% midterm(s) after dropping the lowest score
- 30% final
- 20% data analysis project
- 20% assignments after dropping the lowest score

Questions: Questions of general interest can be posted to the Discussion Board on the class website. TAs and the instructor will attempt to answer those as soon as feasible, but this might not be accomplished within 24 hours or during weekends. The recommended (and most expedient) way to have a question answered is to ask questions during the lectures and/or discussion sessions AND to come to office hours.

Email: I typically do not answer course content related questions by email. The reason for this is that it usually takes 5 to 10 times the amount of time to answer a question by email than to answer questions in person. I strongly recommend that you (as mentioned above) take advantage of asking questions during the lecture, discussion sessions and the office ours (mine and the TAs). I am more than happy to try and make individual appointments if the usual office hours do not work for you. If you are a distance learning student, I am more than happy to try and make a zoom appointment if the usual office hours / discussion session hour don't work for you.

Concerns: If you have any concerns about the class or your TA, please let me know or see the TA about these concerns as soon as possible. If you are not comfortable talking to me or the TA or not satisfied with the response that you receive, you may contact the Department of Biostatistics Associate Director of Academic Affairs (biostgp@uw.edu). If you are still not satisfied with the response that you receive, you may contact the Department of Biostatistics Chair (bchair@uw.edu). You may also contact the Graduate School at G-1 Communications Building, by phone at 206-543-5139 or by email at raan@uw.edu.

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.

(For printed syllabi, below are the URLs for the text that is hyperlinked above:

UW Student Conduct Code (WAC 478-120)

<<http://www.washington.edu/cssc/student-conduct-overview/student-code-of-conduct/>>

SPH Academic Integrity Policy

<<http://sph.washington.edu/students/academicintegrity/>>

Community Standards and Student Conduct

<<http://www.washington.edu/cssc/>>)