

University of Florida
College of Public Health & Health Professions Syllabus
PHC 6937: Frontiers in Biostatistics (3)
 Spring: 2018
 Delivery Format: On-Campus W 4-5 F 5 in CTRB 5235
 CANVAS: <http://elearning.ufl.edu>

Instructor Name: Robert Parker
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 Phone Number: 352-294-5906
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 Office Hours: Tuesday 10-10:50am in CTRB 5219
 Teaching Assistants: Neda Jalali
 Preferred Course Communications: email

Prerequisites: *PHC 6093: Introduction to Biostatistical Theory and PHC 6050C: Biostatistical Methods I or Permission of the instructor*

PURPOSE AND OUTCOME

Course Overview

This course will introduce biostatistics Masters and PhD students to current issues and methods in modern biostatistics research. Current faculty will present selected topics from their current research.

Relation to Program Outcomes

Successful completion of this course fulfills one of the elective requirements for MS and PhD programs in Biostatistics.

Course Objectives and/or Goals

By the end of this course, students should be able to identify modern issues in biostatistical research and be able to interpret and apply modern biostatistical methods.

Instructional Methods

Lecture will be led each week by a different faculty member who will present selected topics from his/her current research. Students are expected to take an active role in discussions of these topics.

DESCRIPTION OF COURSE CONTENT

Topical Outline/Course Schedule

Week	Date(s)	Topic(s)	Lecturer
1	Jan 8-12	Intro to Causal Inference	Babette Brumback
2	Jan 15-19	Robust and Efficient Regression for Big Observational Data in Comparative Effectiveness Research	Baiming Zou
3	Jan 22-26	Robust and Efficient Study Design and Goodness-of-fit Test for Epidemiology Study	Baiming Zou
4	Jan 29 – Feb 2	Special Topics in Survival Analysis	Somnath Datta
5	Feb 5-9	Sparse Clustering Algorithms	Zhiguang (Caleb) Huo

Week	Date(s)	Topic(s)	Lecturer
6	Feb 12-16	Disease Screening and Spatio-Temporal Disease Surveillance	Peihua Qui
7	Feb 19-23	Introduction to Privacy-preserved Data Collection and Analysis	Sam Wu
8	Feb 26-Mar 2		Susmita Datta
9	Mar 5-9	No Class – Spring Break	
10	Mar 12 – 16	Unsupervised Learning	Subha Guha
11	Mar 19-23	Unsupervised Learning	Subha Guha
12	Mar 26-30	Unsupervised Learning	Subha Guha
13	April 2-6		Yang Yang
14	April 9-13	IRB and Phase I Study Design	Sue McGorray
15	April 16-20	Statistics on Manifolds	Robert Parker
16	April 23-25	Statistics on Manifolds	Robert Parker

Course Materials and Technology

Course information, readings, assignments, and grades are available on CANVAS at <http://elearning.ufl.edu>. You must have a Gatorlink account to log on.

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

ACADEMIC REQUIREMENTS AND GRADING

Assignments

- Discussions: There will be weekly graded discussions through CANVAS for each students to provide a summary of what he/she learned along with any questions regarding the topic from that week.
- Homework: Each week a small homework set or a critical review of a paper related the lectures will be assigned in CANVAS. You will typically have one week to finish each assignment.

Grading

Requirement	% of final grade
Attendance	15%
Discussions	25%
Homeworks (~10)	60%

Points earned	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Policy Related to Make up Exams or Other Work

Please note: Any extensions for missed work must be accompanied by a documented excuse. Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from elearning when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

Attendance will be recorded for each class in CANVAS and will count for 15% of your grade.

Please note all faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Class attendance is mandatory. Excused absences follow the criteria of the UF Graduate Catalogue (e.g., illness, serious family emergency, military obligations, religious holidays), and should be communicated to the instructor prior to the missed class day when possible. Missing three or more unexcused scheduled sessions will result in a failure. Regardless of attendance, students are responsible for all material presented in class and meeting the scheduled due dates for class assignments. Finally, students should read the assigned readings prior to the class meetings, and be prepared to discuss the material for each session.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary

action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>
<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:
Alachua County Crisis Center:
(352) 264-6789
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.
