

Course Information for STAT:5120 (22S:190) Mathematical Methods for Statistics

Semester: Spring 2016

Lectures: MWF 2:30–3:20

Room: 31 Shaeffer Hall

Instructor: Luke Tierney, Schaeffer 209, *luke-tierney@uiowa.edu*.
 Office Hours MWF 1:30 – 2:20 or by appointment.
 Grader: Wei Han, *wei-han@uiowa.edu*
 Web Page: <http://www.stat.uiowa.edu/~luke/classes/STAT5120>
 DEO: Joseph Lang, 241 SH, 335-0712
 Texts: WALTER RUDIN (1976), *Principals of Mathematical Analysis*, 3rd Edition, McGraw-Hill Education.
 A. N. KOLMOGOROV & S. V. FOMIN (1970), *Introductory Real Analysis*. New York: Dover

Outline

The goal of this course is to provide students with a firm foundation of real analysis and advanced calculus skills and fundamentals that have proven useful in mathematical statistics. I plan to cover most of the material in Chapters 2 through 7 in Rudin's book and some corresponding sections of Kolmogorov and Fomin. I will try to maintain an informal atmosphere and encourage class discussion and participation. Questions are always welcome and encouraged.

Reading and Homework

Reading assignments for each day will be placed on the web a few days in advance. You should read the assigned material *before* coming to class. Homework assignments are an *essential* component of the course. Assignments will generally consist of 5-10 problems assigned each Friday. Assignments will be collected at the beginning of the class on the day they are due.

Exams and Grading

There will be two midterm exams, tentatively scheduled for the class periods on Friday, February 26 and Friday, April 1. The final exam schedule will be announced during the semester. The final grade will be determined 30% by the homework, 40% by the midterm exams, and 30% by the final exam. Grades may be made available on ICON.

You may discuss general issues and approaches for your homework with your fellow students, but your work must be your own. If you use any references, including solutions to similar problems prepared by other students, you *must* cite and credit your sources. You are strongly encouraged to write up your solutions in \LaTeX .

Late homework and missed exams cannot be made up, except as required by University policies (illness, mandatory religious obligations, and other unavoidable University obligations—*University Operations Manual*, 50.021).

Email and World Wide Web

Announcements on changes or clarifications of assignments or other matters may be sent by email or posted on the class web page. You should check your email and the class home page regularly. ICON will only be used for posting grades.

College of Liberal Arts and Sciences: Policies and Procedures

Administrative Home of the Course

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS *Student Academic Handbook*: <http://www.clas.uiowa.edu/students/handbook/>.

Electronic Communication

University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences. (*Operations Manual*, III.15.2. Scroll down to k.11.)

Accommodations for Disabilities

A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See www.uiowa.edu/~sds/ for more information.

Academic Honesty

All CLAS students or students taking classes offered by CLAS have, in essence, agreed to the CLAS Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

CLAS Final Examination Policies

Final exams may be offered only during finals week. No exams of any kind are allowed during the last week of classes. Students should not ask their instructor to reschedule a final exam since the College does not permit rescheduling of a final exam once the semester has begun. Questions should be addressed to the Associate Dean for Undergraduate Programs and Curriculum.

Making a Suggestion or a Complaint

Students with a suggestion or complaint should first visit the instructor, then the course supervisor, and then the departmental DEO. Complaints must be made within six months of the incident. See the CLAS Student Academic Handbook.

Understanding Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Public Safety web site.