

MATH 4614/6614 - PROBABILITY/STATISTICS

Instructor: Ching-Chi Yang

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Office Hours: TR 4:30 pm - 5:30 pm via Zoom Meeting; or by appointment

Office Location: Zoom Meeting, the number and passcode will be announced on eCourseware.

Course Description: Math 4614/6614 focuses on the basic concepts of probability and statistics. Main categories can be listed as follows:

- Probability:
 - Properties and notations.
 - Conditional probability
 - Independent events
 - Bayes' theorem
- Discrete distribution:
 - Expectation and variance
 - Moment generating function
- Continuous distribution:
 - Expectation and variance
 - Moment generating function
- Central limit theorem
- Descriptive statistics
- Confidence intervals for:
 - means
 - proportions
- Hypothese tests.

SEMESTER TIME FRAME: JAN 18 TO APR 26, 2021.

Course meeting Times: M W 12:40pm - 2:05pm, Zoom Meeting

Zoom ID: 857 148 0400 Passcode: 178203



MATERIALS AND POLICIES

Required Textbook: Probability and Statistical Inference, by Hogg, Tanis, and Zimmerman, 10th Edition. The 9th edition is also acceptable.

Statistical Software (for demonstration only): R

Attendance Policy: Attendance at lectures (MW) is highly recommended. You are responsible for everything that is discussed during the lecture. For more information on labs, see <u>Course Grades</u>.

UofM's Principle on Academic Integrity: Academic integrity is the pursuit of scholarly activity in an open, honest, and responsible manner. It is acceptable to discuss homework problems together, but each student must write up every homework independently in his or her own words.

This course will follow the guidelines listed at https://libguides.memphis.edu/academicintegrity and https://www.memphis.edu/osa/students/academic-misconduct.php.

Disabilities: UofM welcomes students with disabilities into the University's educational programs. If you have a disability-related need for reasonable academic adjustments in this course, contact the Disability Resources for Students (DRS) at 901-678-2880 or at drs.@memphis.edu.

For further information regarding DRS, please visit the Disability Resources for Students Website at https://www.memphis.edu/drs/.

To receive consideration for course accommodations, you must contact DRS and provide documentation. If the documentation supports the need for academic adjustments, DRS will provide a letter identifying appropriate academic adjustments. Please share this letter and discuss the adjustments you're your instructor as early in the course as possible.

Student Health: Students who have a positive COVID-19 test should contact the Dean of Students at deanofstudents@memphis.edu.

Student Resources: Students who need additional resources can visit the Dean of Students Office website at https://www.memphis.edu/deanofstudents/crisis/.



Department of Mathematical Sciences

COURSE GRADES:

Grades (tentative): The tentative final-grade scale is as follows. A higher grade may be received if this is modified, but you will not receive a lower grade than what is found below.

Grade	Α	В	С	D	F
Percent	100-90	89-80	79-70	69-60	59-0

Grading:

	Math 4614/6614	
Homework	40%	
Quizzes	20%	
Exam	40%	

Homework: Homework will generally be assigned bi-weekly and due next week. No late submission will be allowed. The worst one will be dropped.

In-Class/Virtual work: There will be random quizzes on Monday or Wednesday based on what was covered in the lecture over the last week. For quizzes, you may use any sources include online sources, but you need to complete it in time.

Exams: There will be two exams in this course. You may bring one hand-written formula sheet (letter size, may use both sides). More details will be announced.