Economics 307: Principles/Methods of Statistics Spring 2019

Professor: Katie Lopresti Schedule: MWF

Email: kelopresti@wm.edu Section 01: 12:00-12:50

Office: Tyler Hall #243 Section 02: 1:00-1:50

Office Hours: Wed & Fri 2-3 pm & Location: Tyler 123

Tuesday 10:30-11:30 am

Course Overview: In Principles/Methods of Statistics, you will learn how to collect, display, analyze and interpret data. We will discuss how to use data and statistics to answer questions and make inferences about an uncertain world. Topics discussed will include descriptive statistics, probability, statistical inference, and regression analysis. At the end of the semester, you will be ready to take the helm and complete your own project – using economics and statistics to answer a question of particular interest to you.

Textbook: There is no required textbook for this class. That said, I think it is helpful to have some statistics book as a reference. I highly recommend "Statistics for Business and Economics," by Newbold, Carlson, and Thorne: (ISBN-13: 978-0132745659). However, if financial constraints are a concern, a free online version can be found here from Open Intro: http://www.openintro.org/stat/textbook.php. (Please see a document posted on Blackboard for more information about textbooks).

Course TA: We are lucky this semester to have a teaching assistant, Katherine Johnson. Time and dates will be announced.

Student Evaluation: This course consists of two midterm exams, a final exam, five homework assignments, "one minute papers", one Journal assignment, and a final project.

• **Homework**: There will be 5 homework assignments during the semester. Homework is due in class. *No late assignments will be accepted.* If you are ill and cannot attend class, you may have a friend turn in the homework to me or slide it under my office door before the end of the class period. *Please do NOT put homework in my mailbox on the 3rd floor.* (As a last resort, in extenuating circumstances, you may email me your homework by class time). To access homework assignments, please refer to the Blackboard site for this course. I encourage you to work on homework together, but you should submit your homework written *in your own words*, using your own descriptions and mathematical work. (No homework should be turned in that is simply a close duplicate of another student's, even if you worked together).

Homework Due Dates

Assignment	Due Date
HW 1	Jan 30 th
HW 2	Feb. 6 th
HW 3	Feb. 25 th
HW 4	April 8 th
HW 5	April 19 th

Exams: Exam dates are provided below. There will be no make-up exams. Students who
are not able to take an in-class exam and who provide appropriate documentation in
advance (from the Dean of Students Office) will have the final exam reweighted
accordingly. Below is contact information for the Dean of Students Office if you find
yourself in an emergency situation and need to work with their office to continue your
academic success.

Email: <u>deanofstudents@wm.edu</u>

Phone: (757) 221-2510

Exam	Date	Time
Exam 1	Feb. 13 th	In-class
Exam 2	March 20 th	In-class

Final Exam Date:

Section 01: May 6th, 9:00 am – 12:00 pm, Tyler 123
 Section 02: April 29th, 2:00 pm – 5:00 pm, Tyler 123

Please double check your final exam times at:

https://www.wm.edu/offices/registrar/calendarsandexams/examschedules/index.php.

• **Statistics Journal**: Once during the semester, you will be asked to write a brief journal entry. I will provide more detail on this assignment as the semester progresses.

Assignment	Due Date	
ENTRY	March 11 th	

• One Minute Papers: Attendance will not be directly taken in this course. However, at the end of some unannounced class sessions, I may ask you to take one minute and write down what you did not understand during the class period and what you understood the best from that class. This provides me with helpful feedback on the material covered in lecture, as well as providing an incentive for you to attend class.

• **Final Project.** This project will be discussed in more detail as the semester progresses, but will involve a short assignment (a topic proposal) to help you prepare for the final project.

Assignment	Date
Topic Proposal Assignment	March 29 th
Final Paper	April 26 th

Breakdown of Course Grades:

Component	% of Course Grade
Journal Assignment	2%
One Minute Papers	1%
Homework	20%
Exam 1	21%
Exam 2	21%
Final Paper	10%
Final Exam	25%
Total	100%

The grading scale will be as follows: 93% -100% = A, 90% to 92. 99% = A-, 88% to 89.99%=B+, 83%-87.99=B, 80%-82.99%=B-, 78%-79.99%=C+, 73%-77.99%=C, 70%-72.99%=C-, 68%-68.99%=D+, 63%-67.99%=D, and 60%-62.99%=D-. Grades below 60% will result in an F.

A grading curve *may* be determined at the end of the semester. The curve will never be stricter than the scale mentioned above and would only serve to curve grades up.

Course due dates: I will notify students of any changes in assignment due dates in advance of posted due dates. Changes in due dates may occur in the event of cancelled classes due to weather or other events that change the pace at which we progress through the material.

All grades will be posted on Blackboard. If there is a discrepancy between the grade written on your course work and the grade posted in Blackboard, you have one week after the work is returned to bring this to my attention, or the grade will remain.

Schedule: This is a tentative schedule of the order in which we will approach topics.

- Introduction
- Descriptive Statistics
- Probability Analysis
- Random Variables, Joint Probability Distributions, Expected Value, Covariance
- Binomial Distribution and Normal Distribution
- Sampling, Sampling Distribution, Confidence Intervals
- Hypothesis Testing
- Two Sample Tests
- Chi Square Tests
- Simple Regression
- Multiple Regression

Academic Honesty: All students are expected to adhere to the Honor Code: http://www.wm.edu/offices/deanofstudents/services/studentsconduct/honorce

http://www.wm.edu/offices/deanofstudents/services/studentconduct/honorcodeandstudentconduct/honorcode/index.php. Students are always encouraged to study together, but all academic work that is turned in should be the student's own work and students should follow all course guidelines.

Class Conduct: During the class period, please put your cell phones away. Please do not use your cell phones for any reason (texting, taking photos, etc). If I see you using your phone, I will ask you to put it away. If there is an urgent reason that you need to access your phone during class, please exit the classroom to do so. Additionally, students are not permitted to listen to music during class or exams.

Laptop use during class is not permitted unless you have permission from me, due to extenuating circumstances. The use of laptops in this course is not the most effective way to take notes or work through models in class. Additionally, laptops can often serve to distract others during class.

Student Accessibility Services: Any student with disabilities who feels they may require additional accommodations to assist their academic success based on a physical, psychiatric, learning, or chronic health diagnosis should contact the Student Accessibility Services office. It is your responsibility to notify me well in advance of any exams or other course deadlines and provide documentation from Student Accessibility Services if you require additional accommodations for exams and course work. If you fail to contact me in advance, you may be unable to use your accommodations for exams and coursework. receive accommodations to assist their academic success:

Website: www.wm.edu/sas
Phone: 757-221-2509
Email: sas@wm.edu