

Statistics 1018: Introduction to Business Statistics.

Professor: Mark Low, *lowm@wharton.upenn.edu*

Prerequisite: The class assumes knowledge of calculus at the level of Math 1400 and is designed in a way to be of interest to both first year students as well as others considering quantitative concentrations. Although multivariable calculus at the level of Math 1410 is not a prerequisite either previous experience with multivariable calculus or concurrent enrollment in Math 1410 or Math 1610 is strongly advised. No prior knowledge of statistics will be assumed but students who have taken AP statistics in high school and have the necessary mathematics prerequisites are also encouraged to consider this class if they are considering statistics as a possible concentration or minor. This class will cover much more and at a more mathematically sophisticated level than most introductory classes. Do not hesitate to reach out if you have questions.

Book Evans and Rosenthal. Probability and Statistics: The Science of Uncertainty. Please note that this book is available for free and a link will be provided.

Topics: The class will cover the foundations of probability as well as an introduction to statistics from both Bayesian and frequentist perspectives. Simulations and data analysis will be done using R.

Office Hours: I plan to hold office hours over zoom. Hours will be posted on Canvas.

Class Attendance: You are expected to attend class in person unless you are sick or have an emergency.

Electronic Devices: Please refrain from using electronic devices other than for taking notes during class and place your mobile phones on mute. I will do the same.

Generative AI permitted: You may use generative AI to help you study but for homework you should mention if you used it.

Homework: There will be weekly homework. The purpose of the homework is to help you engage the material. You are free to work with others but you should write up the solutions on your own. I strongly recommend working on the homework throughout the week. The homework will be submitted via gradescope which keeps track of whether you handed it in on time. Your answers should be carefully written and well organized. Problems will be selectively graded but solutions will be provided to all the problems assigned.

Exams There will be two exams. The first exam will be on Wednesday October 2. The date of the final exam has not been announced. The exams will be closed book, closed notes without use of a calculator.

Grades Your final grade will be based on both your homework and the exams. I will assign two letter grades, one for homework and another for the exams. Your final letter grade for the class will weight these two equally with rounding done in the direction of your exam letter grade. For your exam grade each exam will count equally. I will use an absolute scale when assigning this grade but make adjustments if an exam is particularly difficult.