

## STAT 613, Regression Analysis for Business, Fall 2021 Syllabus

- Class Info: The class times are Mondays and Wednesdays in JMHH F85:
- Section 001: 8:30 – 10:00 AM
  - Section 002: 10:15 – 11:45 AM
  - Section 003: 1:45 – 3:15 PM
- The classes will be recorded and made available to you.
- People: Instructor: Kam Hamidieh, [hkam@wharton.upenn.edu](mailto:hkam@wharton.upenn.edu), 215-898-9477  
TA: Hongming Pu, [hpu@wharton.upenn.edu](mailto:hpu@wharton.upenn.edu)
- Office Hours: Kam: Mondays 4:00-6:00 PM, 110 SHDH or by appointment  
Hongming: Tuesdays 9:00-11:00 AM by Zoom  
Additional hours will be added as needed.
- Text: There is no required textbook. I will announce references as we go along. The class slides will be made available to you.
- Software: Working with real data, utilizing software, and interpreting the output are important components in this course. We will use JMP version 16. The instructions to obtain a free version are posted on the course website.
- Course Site: <https://canvas.upenn.edu/courses/1611295>  
(You'll need your Penn ID and password.)
- Course Description: This course provides the fundamental methods of statistical analysis, the art and science of extracting information from data. We will begin with a focus on probability and statistical estimation and inference. Then we will proceed to explore the use of the key statistical methodology known as regression analysis for solving business problems. The use of regression diagnostics and various graphical displays supplement the basic numerical summaries and provides insight into the validity of the models. Specific important topics covered include least squares estimation, residuals and outliers, tests and confidence intervals, correlation, collinearity, and bootstrapping.
- Grading:
- Grade Components:
    - 30% Final Exam: Date TBD
    - 25% Midterm Exam: Tuesday October 12<sup>th</sup>, 7:00-9:00 PM
    - 5% Graded Quizzes: Wednesday September 29 & Wednesday November 10
    - 15% Final Project: Due Wednesday December 15, 7:00 PM
    - 15% Homework: See page 3 for the tentative due dates.
    - 10% Participation: Answering questions, engaging, filling out survey, and attendance

According to <https://mba-inside.wharton.upenn.edu/academics/academic-policies/>:  
“For MBA classes with an MBA enrollment of 20 or more at the conclusion of the course, the class MBA Grade Point Average (CMGPA) may not exceed 3.33.”

- Some Policies:
- Your grade will be lowered by *at least* 2 letter grades for *any* kind of cheating and the Dean will be notified. The MBA Code of Ethics applies: <https://mba-inside.wharton.upenn.edu/mba-code-ethics/>
  - Attendance is required: <https://mba-inside.wharton.upenn.edu/mba-program-attendance-policy/>
  - You will not be excused from class due to a conflict with a job interview or other personal events.
  - Wharton “concert rules” apply: <https://mba-inside.wharton.upenn.edu/academics/academic-policies/>
  - You may discuss the homework problems with your classmates, but you must write up your own answers and submit individually.
  - You will work individually on the project.
  - I will also call on you at random to answer questions.
  - You must contact me directly by email if you wish to dispute any grades. You’ll have one week from the time the solutions are posted to bring any disputes to my attention. Disputes will not be accepted beyond this deadline. I will regrade your entire work and not just the part that is disputed.
  - Occasionally I will ask you to watch a video or assign some reading before a class or a homework assignment. These are required.
  - There will be no make-ups or extra credit opportunities under any circumstances.
  - Late homework (with penalty) is only accepted under extenuating circumstances.
  - Any student with documented disability is requested to contact me within the first two weeks of class.

- Dates:
- Important dates: <https://mba-inside.wharton.upenn.edu/calendars/academic-calendars/2021-22-wharton-mba-academic-calendar/>

***This is a tentative schedule.***

<b>Week Number</b>	<b>Lecture Number</b>	<b>Date</b>	<b>Material Covered</b>
1	1	Monday, August 30, 2021	Probability
	2	Wednesday, September 1, 2021	Probability
2	-	Monday, September 6, 2021	No Class
	3	Wednesday, September 8, 2021	Probability
3	4	Monday, September 13, 2021	Probability
	5	Wednesday, September 15, 2021	Probability
4	6	Monday, September 20, 2021	Probability
	7	Wednesday, September 22, 2021	Inference
5	8	Monday, September 27, 2021	Inference
	9	Wednesday, September 29, 2021	Inference
6	10	Monday, October 4, 2021	Inference
	11	Wednesday, October 6, 2021	Inference
7	12	Monday, October 11, 2021	Exploratory Data Analysis
	-	Wednesday, October 13, 2021	No Class
8	-	Monday, October 18, 2021	No Class
	-	Wednesday, October 20, 2021	No Class
9	13	Monday, October 25, 2021	Simple Linear Regression
	14	Wednesday, October 27, 2021	Simple Linear Regression
10	15	Monday, November 1, 2021	Multiple Regression
	16	Wednesday, November 3, 2021	Multiple Regression
11	17	Monday, November 8, 2021	Multiple Regression
	18	Wednesday, November 10, 2021	Multiple Regression
12	19	Monday, November 15, 2021	Multiple Regression
	20	Wednesday, November 17, 2021	Multiple Regression
13	-	Monday, November 22, 2021	No Class
	-	Wednesday, November 24, 2021	No Class
14	21	Monday, November 29, 2021	Multiple Regression
	22	Wednesday, December 1, 2021	Multiple Regression
15	23	Monday, December 6, 2021	Multiple Regression
	24	Wednesday, December 8, 2021	Business Experiments

The homeworks are tentatively scheduled for 7:00 PM Tuesdays: 9/21, 10/5, 11/2, 11/16, 11/30, and 12/7.