STAT 1100: Statistics and Probability for Business Management Spring 2022(A)

Instructor:	Ruth Mihalyi			
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Phone:	412-624-8368			
Class Hours:	Tues & Thurs, 11:00 – 12:15			
Office Hours :	Tues 2:30 – 3:45 p.m., Wed. 1:30 – 2:45 p.m.			
	By Zoom (1/18 – 1/26)			
Room:	104 Lawrence Hall			
Textbook:	<i>Business Statistics</i> , 4 th Edition; Sharpe, DeVeaux, Velleman			
Prerequisite:	MATH 0120: Business Calculus or MATH 0220: Analytic Geometry and Calculus 1			

Description

This class is a one semester introduction to probability and statistics intended primarily for undergraduate business administration majors and for joint Arts and Sciences/Business majors. The topics covered include descriptive statistics, elementary probability, random sampling, controlled experiments, hypothesis testing, regression, chi-square, and the analysis of variance. In addition, students will be exposed to more advanced topics in modern statistical practice. Students will also become proficient at using Excel to analyze data.

Grades

The grade you earn will be a reflection of how closely you meet the goal of mastering all topics listed on the course calendar. The four criteria listed below will be used to measure your mastery of these topics:

I. Homework/Project Assignments (20% of your grade)

- There will be up to **nine (9)** homework assignments throughout the semester.
- Homework assignments and any necessary data will be completed through MyLab.
- Homework assignments may vary in total points.
- Late homework will be accepted after the due date, up to April 22nd, for half credit.
- Extended excused absences due to illness, family emergencies, etc. will be handled on a case-by-case basis and may be subject to a departure from the above policy.

II. Quizzes & Recitation Labs (15% of your grade)

- There will be **six (6)** quizzes and Excel labs given throughout the semester and your two (2) lowest grades in this category will be dropped.
- All six quizzes/labs will have an equal number of total points (20 points).
- Since your 2 lowest grades in this section will be dropped, there will be **<u>no makeup quizzes or labs</u> <u>for any reason.</u>**
- Dates for the upcoming quizzes and/or labs will be posted on Canvas in advance; please regularly check announcements on Canvas to ensure you don't miss a due date for a lab or quiz.

III. Exams (Each 20% of your grade for a total of 40%)

- There will be **two (2)** exams given on the following dates.
 - Exam #1: Thursday, February 17 (Lectures 1 10)
 - Exam #2: Tuesday, April 5th (Lectures 11 19)
- If you need to miss an exam due to an emergency such as illness, family emergency, or court appearance, you must provide appropriate documentation. **Appropriate documentation for your absence during the exam window is required. If you cannot provide documentation, you will receive a score of zero.** In the event that an exam is legitimately missed, a decision will be made as to whether you can make up the exam or not. If it is not possible for a makeup exam to be administered, your final exam grade will be used to replace the grade of the exam that was missed.

IV. Final Exam (25% of your grade)

• The final exam will be given online during the week of April 25 – April 29.

- The final exam will be **comprehensive**. A majority of the points will come from **Lectures 11-23**. The remainder of the final exam will be review of the material covered from **Lectures 1-10**.
- The final exam must be taken during the time period scheduled for your class. Exceptions will only be granted to students who have three exams scheduled for the same day or another exam scheduled at the same time as this exam.

Final Course Grade

<u>Percentage</u>	<u>Letter Grade</u>	
99% and up	A+	
93% - 98%	А	
90% - 92%	A-	
87% - 89%	B+	
83% - 86%	В	
80% - 82%	B-	
77% - 79%	C+	

<u>Percentage</u>	Letter Grade	
73% - 76%	С	
70% - 72%	C-	
67% - 69%	D+	
63% - 66%	D	
60% - 62%	D-	
Under 60%	F	

<u>Grades are not negotiable at the end of the semester</u>. You have plenty of opportunities to display your mastery of the topics throughout the semester. If you want or need help understanding the material, come talk to me or the TA long before the end of the semester.

Recitations

The recitations for this class are not mandatory, but attendance will be taken. I think you will find that attending these sessions will enhance your knowledge of the material. Your TA may review material from the past week, review selected homework problems, pose additional problems regarding the content, or provide valuable assistance using Excel. You will also have the opportunity to complete Excel labs throughout the semester. Recitations may serve as additional review sessions for the exams. Please make every attempt to attend the recitation for which you are registered. If you have a scheduling conflict, please contact the TA about attending at a different time. Extra credit will be given for recitation attendance at the end of the semester. Extra credit points will be added to the Homework portion of your grade.

The TA for this section of STAT 1100 is:Zi WangOffice Hours:Thurs; 4:00-5:00 and Friday; 11:15-12:15Location:Zoom until 1/27Email:ziw43@pitt.edu

Please attend your assigned recitation during the following times:

Day	Time	Room
Wed	12:00 – 12:50 p.m.	CL G14
Wed	1:00 – 1:50 p.m.	CL G14
Wed	2:00 – 2:50 p.m.	CL G14
Thur	10:00 - 10:50 a.m.	BENDM 157

Statistics Tutoring

One-on-one tutoring serves all students in introductory statistics classes (200, 800, 1000 and 1100); undergraduate and graduate students are available to help you. Please check their website for hours and to schedule an appointment. Only 1-on-1 one hour tutoring sessions are available. To receive help, book an appointment through at https://www.asundergrad.pitt.edu/connected-community/peer-tutoring.

Quantitative Reasoning General Education Requirement

This course fulfills the Dietrich School of Arts and Sciences Quantitative Reasoning General Education Requirement (GER) which reads as follows: Quantitative and Formal Reasoning: All students are required to take and pass with a grade of C- or better at least one course in university level mathematics (other than trigonometry) for which algebra is a prerequisite, or an approved course in statistics or mathematical or formal logic.

Academic Integrity

Students in this course are expected to comply with the University of Pittsburgh's Academic Integrity policy, which can be found at https://www.as.pitt.edu/faculty/policies-and-procedures/academic-integrity-code Any student found to be deliberately copying another student's homework/lab/extra credit assignment will receive a zero for that assignment. Any student allowing another student to copy his/her assignments will also receive a zero for the assignment. Any student found cheating on an exam or assisting others in cheating on an exam will receive an **F** for the course and may be subject to further disciplinary action. Generally speaking, it is expected that you do not lie, cheat, or steal in your academic endeavors.

Disabilities

Students with documented disabilities are entitled to reasonable accommodations if necessary. If you have a disability that requires special accommodations, please contact Disability Resources and Services in 140 William Pitt Union no later than the second week of the semester. Their website is <u>http://www.drs.pitt.edu/</u> and their phone number is 412-648-7890. Accommodations will not be granted retrospectively. They will verify your disability and determine reasonable accommodations for this course.

SPRING 2022 COURSE CALENDAR

Any unforeseen changes to the schedule will be emailed to the class and posted in announcements on Canvas. Make sure that you are frequently checking Canvas & emails throughout the semester.

Lecture	<u>Day</u>	Date	<u>Topic</u>	<u>Due Dates</u>
1	Tues	Jan 11	Introduction; Variables and Data (Zoom)	
2	Thur	Jan 13	Sampling Methods and Surveys (Zoom)	
3	Tues	Jan 18	Observational Studies and Experiments (Zoom)	
4	Thur	Jan 20	Categorical Data; Displaying and Describing (Zoom)	HW #1 Due 1/23
5	Tues	Jan 25	Quantitative Data; Displaying and Describing (Zoom)	Quiz on MyLab this week
6	Thur	Jan 27	Quantitative Data; Displaying and Describing	HW #2 Due 1/30
7	Tues	Feb 1	2 Quantitative Variables; Correlation	
8	Thur	Feb 3	2 Quantitative Variables; Regression	HW #3 Due 2/6
9	Tues	Feb 8	Probability (part 1)	Quiz in recitation this week
10	Thur	Feb 10	Probability (part 2)	HW #4 Due 2/13
	Tues	Feb 15	Exam #1 Review	
	Thur	Feb 17	EXAM #1	
11	Tues	Feb. 22	Random Variables & Probability Distributions	
12	Thur	Feb. 24	Binomial & Geometric Distributions	HW #5 Due 2/27
13	Tues	Mar 1	Normal Distribution	Quiz in recitation this week
14	Thur	Mar 3	Sampling Distribution of Proportions	
		Mar 8, 10	SPRING BREAK – NO CLASSES	
15	Tues	Mar 15	Confidence Intervals	
16	Thur	Mar 17	Hypothesis Testing, part 1	HW #6 Due 3/20
17	Tues	Mar 22	Hypothesis Testing, part 2	Quiz in recitation this week
18	Thur	Mar 24	Sampling Distribution of Means	HW #7 Due 3/27
19	Tues	Mar 29	t-Distribution	
	Thur	Mar 31	Review for Exam #2	
	Tues	Apr 5	EXAM #2	
20	Thur	Apr 7	Inference for Diff. between 2 Means & Paired Data	
21	Tues	Apr 12	Inference for 2 Categorical – Chi Square Test	
22	Thur	Apr 14	Inference for 2 Quan; Regression	HW #8 Due 4/17
23	Tues	Apr 19	Inference for 2+ Quan Variables; ANOVA	
	Thur	Apr 21	Review for Final Exam	HW #9 Due 4/24
		Apr 25-29	FINAL EXAMS WEEK	