UNIVERSITY OF LOUISVILLE

COLLEGE OF BUSINESS

Master of Accountancy 668: Statistical Analysis **MAC 668** **Fall 2021**

Instructor	Dr. Ty Handy
Contact information	Telephone: 502-271-9244 (cell) Fax: 502-213-2115 Email: tyhandy62@gmail.com
Office hours	By appointment My day job is as the President of: Jefferson Community and Technical College 109 E. Broadway Louisville, KY 47136

II. Course Information	
Class time / Room	August 9: 6pm to 9:30pm August 16: 6pm to 9:30pm August 23: 6pm to 9:30pm August 30: 6pm to 9:30pm September 13: 6pm to 9:30pm September 20: 6pm to 9:30pm September 27: 6pm to 9:30pm October 4: 6pm to 9:30pm October 11: 6pm to 9:30pm October 18: 6pm to 9:30pm **Classroom:** BS 216 (Subject to change by the COB)
Recommended texts	*Naked Statistics: Stripping the Dread from the Data*. By Charles Wheelan. W.W. Norton and Company. ISBN: 978-0-393-34777-7. Paperback book. *I recommend you get this low cost book as it will help you in troubleshooting your assignments* *Statistics for Management and Economics.* 11th edition. 2018 by Gerald Keller.

	This text is optional and you likely will not need it unless you really want to have a text to lean on. You may get any current version of the book – hardback, loose-leaf or E-book. You do not need to get access to the software support. Materials in the text will form the backbone of the class although I will cover material in a different order and will emphasize certain concepts over others.
Course description	An introduction to descriptive and inferential statistics with an emphasis on business applications. Topics covered include, data summarization and visualization, probability distributions, sampling methods, hypothesis testing, confidence intervals, chi-square, analysis of variance, simple and multiple regression, model building and alternatives to linear regression.
Prerequisites	None
Learning objectives	This is a course in quantitative analysis. The course is designed to provide students with the practical knowledge needed to organize and effectively analyze business data. To ensure that students can readily apply the ideas and concepts covered in this course, students will spend considerable time using statistical software such as Excel Data analysis and SPSS. Upon successful completion of this course, students will be able to: • Conceptualize business problems with the quantitative tools presented in this class • Summarize and present visual displays of data • Utilize common probability distributions to solve business problems • Construct and interpret confidence intervals and hypothesis tests • Perform chi square and ANOVA analyses • Perform simple and multiple regression analysis • Utilize alternatives to linear regression • Explore large data sets with an eye toward effective analysis • Use computers to enhance decision making
Learning Outcomes	• Solve common analytical business problems • Think systematically if and how data can help make better-informed decisions • Use business analytical tools; and • Have had hands-on experience mining and analyzing data.

Final drop date	Please contact the MBA Office
Required software	Microsoft Excel – with Data Analysis SPSS (your instructor will provide access to SPSS)
Other utilities	You would be required to bring a Windows or a Mac laptop. Have access to high-speed internet for assignments. I am not a user of the Mac platform. I understand that the data analysis toolpack is not available on the Mac for Excel 2010 or newer. Instead, I'm told you should follow the instructions on this website. http://office.microsoft.com/en-us/mac-excel-help/i-can-t-find-the-analysis-toolpack-HA102927742.aspx Choose the FREE lite version NOT THE PRO!
Caveat and Promise	I will attempt to adhere to the dates, policies, and instructions in this syllabus. I will also do the same for all materials and instructions on the Blackboard site for this class. I do however reserve the right to make changes due to extraordinary circumstances, or when it is obviously in your (the students) best interests to do so. In such an event I will give you adequate notice (via Blackboard or otherwise) and you can be assured that any additional demands or changes made will be reasonable and (to re-iterate) in your best interest.
Communication	Student to student and student to instructor interactions are an important component to this class. Communication between the student and the instructor will be regular. I am always available before and after the class. You may email me questions as and when they arise, and I will reply within 24 hours if at all possible. In certain cases email will not be a satisfactory medium to answer a specific question, and a telephone call may be more appropriate. In certain cases, I will be happy to fix an appointment in person, and I will accommodate your work schedules.

III. Evaluation			
Grading scale	A	>=93	Exceptional work
	A-	90-92	Very good
	B+	87-89	Above average
	B	83-86	Average
	B-	80-82	Below Average

	C	75-79	Barely Acceptable
	F	<78	Unacceptable
Grading scheme	*Grading component*		*Weighted grading percentage*
	Exams/Final Project		25%
	Homework		50%
	Groupwork		25%

How to be successful in this class:

1) Work homework problems soon after the topic is covered so it is fresh in your mind.

2) Work extra problems in areas where you struggle with the homework. Work within your cohort group to get help and more fully understand the assignments.

3) Focus on the application of the concept and not so much on the formulas. Try to understand conceptually what the topic is doing. In other words, spend more time looking at the forest (the topic) and less on the weeds (the formulas). You do not need to memorize any formulas.

4) Expect to spend time outside of class preparing or poor results are to be expected. A good rule of thumb is to plan to spend two hours outside of class for each hour we are in class. This means committing to about 9 hours per week for this course, counting class time (even if we are in hybrid or online mode for the class session)

IV. Schedule

Notes:

1. This schedule is tentative and will ebb and flow as the course progresses

Week	**Topic**	**Session Activity** Additional readings may be added for more information
1 August 9	Types of Data, Measures of Central Tendency, Measures of Variation	Course overview Intro to datasets Intro to Excel Naked Statistics – chapters 1, 2 and 3
2 Aug 16	Organizing and Presenting Data	Group Presentations of previous week material Naked Statistics - chapter 7
3 August 23	Sampling Distributions, Hypothesis Testing, and Confidence Intervals	Group Presentations of previous week material Naked Statistics - chapters 8 and 9
4 August 30	Chi-Square, Correlation	Group Presentations of previous week material Naked Statistics - chapter 4
5 September 13	ANOVA, OLS Regression	Group Presentations of previous week material Naked Statistics - chapter 11
6 September 20	OLS Regression and Introduction to SPSS	Group Presentations of previous week material Naked Statistics - chapter 12

7 September 27	Advanced Regression	Group Presentations of previous week material Naked Statistics - chapter 13
8 October 4	Advanced Regression	Group Presentations of previous week material
9 October 11	Designing Experiments/ Model Building	Group Presentations of previous week material
10 October 18	Remaining Material/Wrap up/Final Project	Group Presentations of previous week material

Changes in the syllabus	Syllabus is subject to change. In particular the order of topics to be presented may change.

V1. Student Responsibilities / College and University Issues	
University of Louisville student conduct and responsibilities	This course will abide by University of Louisville student conduct and responsibilities with regards to ethics and related issues: http://louisville.edu/dos/students/policies-procedures/student-handbook.html#codeofstudentconduct
College of Business student conduct and responsibilities	This course will abide by College of Business student conduct and responsibilities with regards to ethics and related issues: http://business.louisville.edu/students/college-of-business-academic-dishonesty-policy
Religious holiday conflict policy	http://louisville.edu/diversity/resources/work-restricted-holy-day-policies-calendar.html
University policy on equal access	http://louisville.edu/disability/policies-procedures
Title IX/Clery Act Notification	Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain **confidential** support from the PEACC Program (852-2663), Counseling Center (852-6585), and Campus Health Services (852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (852-5787) or University of Louisville Police (852-6111). Disclosure to University faculty or instructors of sexual misconduct,

	domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is not confidential under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University's Title IX officer. For more information, see the Sexual Misconduct Resource Guide (http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure).