

# Statistics for Business and Economics – MGSC 291

## Spring 2014 Syllabus

**Instructor:** Joel Wooten  
**Office hours:** BA 728, TWR 1:00-2:30p (or by appt.)  
**Classroom:** BA 364

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### Course description

Vast (and increasing) amounts of data fill today's business landscape. This course develops the knowledge and skills needed to collect, analyze, and present that data in a helpful way. Along the way, we will explore human bias and decision-making, statistical applications of Excel, and the underlying intuition of statistics.

*"It's easy to lie with statistics, but it's hard to tell the truth without them."* – Andrejs Dunkels

### Course materials

Blackboard will host most class materials, assignments, notes, discussions, and grades. Please check it regularly, as it will serve as the class portal. In addition, there will be a class GroupMe account for dialog, trivia, and questions outside of class.

The required text is *Essentials of Business Statistics*, 1e by Jaggia and Kelly. You must purchase access to both the online Connect system and the eBook. (A ring-bound version of the text is optional and available in the university bookstore.) You have a free 3-week trial period of the online materials (Connect + eBook) during which you can decide the option that is best for you.

### Grading

Your final grade will be determined as follows:

		A	90 – 100
Assignments:	10 %	B+	87 – 89
Class participation, exercises:	10 %	B	80 – 86
Homework (Connect quizzes):	15 %	C+	77 – 79
Exam I:	20 %	C	70 – 76
Exam II:	20 %	D	60 – 69
Final:	25 %	F	0 – 59

### Policies

Some policies may come across as overly strict. My goal is simply to be extremely clear so that you understand my expectations. Please review everything on the syllabus carefully. If anything seems unreasonable, send me an email before the second class and I will consider your concern carefully. After that time, I will not consider any exceptions or modifications.

### Attendance

Regular attendance is required. I will follow the University's policy on attendance and penalties for poor attendance. There is also a portion of your grade that depends on class participation (which reflects your engagement in class discussions, exercises, etc.) More importantly, the classroom is where I get to make statistics fun and memorable – coming to class will help you get the most of out this course.

If you need to miss a class, you do *not* need to tell me in advance – we all face various trade-offs in life and attending class is one of them. If you need to miss a class for a family wedding, for example, you do not need to let me know; you should make sure to turn in any assignments in advance and check with your classmates afterwards for any missed notes and obligations. These tasks are your responsibility. Please do not ask me if you missed anything important (answer: yes) or if you can make up for missing class (answer: no).

Absences are excused for religious holidays, official university conflicts, and documented medical conditions. If you need to miss an exam due to one of these, please let me know as soon as possible and provide appropriate documentation (a letter from your physician, etc.).

### **Classroom behavior**

I use a seating chart, which will generally be displayed before class. Please arrive on time and do not leave early. It is distracting to me and to your classmates.

I don't mind if you bring beverages (or snacks) to class, but please be discreet.

Laptops must be put away during class, unless instructed otherwise. In the same vein, make sure mobile devices are turned off and put away during class.

### **Academic integrity**

The University of South Carolina has clearly articulated policies governing academic integrity, and students are encouraged to carefully review the policy on the Honor Code in the student handbook. Most importantly, I expect you to act in a professional, upstanding manner. This includes standing behind your work as your own, not using unauthorized aid, being truthful in all interactions, and asking questions when in doubt.

### **Learning objectives**

- Understand the importance of statistics and its role in making decisions.
- Differentiate between various types of data and statistical techniques used in business analysis.
- Demonstrate a basic knowledge of those techniques, including interval estimation and regression.
- Integrate critical thinking and develop intuition with respect to these concepts.

## Course Outline

<i>Class</i>	<i>Topic</i>	<i>Chapter</i>	<i>Required submissions</i>
1/14	Intro to Data	1	
1/16	Representing Data	2	HW1
1/21	Measurement	3	HW2, Data visualization
1/23	Measurement	3	
1/28	Human Bias		HW3
1/30	Human Bias		
2/4	Probability	4	
2/6	Probability	4	
2/11	<i>Project #1</i>		HW4, Data project
2/13	<b>Exam #1</b>	<b>1-4</b>	
2/18	Discrete Probability Distributions	5	
2/20	Discrete Probability Distributions	5	
2/25	Continuous Probability Distributions	6	HW5
2/27	Continuous Probability Distributions	6	
3/4	Sampling	7	HW6
3/6	Sampling	7	
3/11	<i>(Spring break)</i>		
3/13	<i>(Spring break)</i>		
3/18	Interval Estimation	8	HW7
3/20	Interval Estimation	8	
3/25	<i>Statistics Casino</i>		HW8
3/27	<b>Exam #2</b>	<b>5-8</b>	
4/1	Hypothesis Testing	9	
4/3	Hypothesis Testing	9	
4/8	Regression	12	HW9
4/10	Regression	12	
4/15	Regression	12	
4/17	<i>Project #2</i>		HW10, Regression project
4/22	Regression	12	
4/24	Regression	12	
TBD	<b>Final Exam</b>	<b>1-9, 12</b>	