BUSINESS MANAGEMENT 2320
DECISION SCIENCES: STATISTICAL TECHNIQUES
Autumn 2017

We adhere strictly to University Rule 3335-8-33: Any student who fails to attend class by the third instructional day of the term, the first Friday of the term, or the second scheduled class meeting of the course, *whichever occurs first*, without giving prior notification to the instructor will be dis-enrolled. No exceptions!

GENERAL COURSE INFORMATION

Staff	
INSTRUCTORS	Mrs. Bonnie Schroeder Fisher Hall 330 (614) 688 - 8062 schroeder.1@osu.edu Dr. John Draper Fisher Hall 345 (614) 292 - 0025 draper.34@osu.edu
TAs	Fisher Hall 009 FCOB-ms2320ta@osu.edu A directory of the TA staff can be found: Carmen > AU17 BUSMGT 2320 > Modules > Syllabus and General Information > COURSE INFO: TA Directory

Communication and Office Hours	
OFFICE HOURS	The BUSMGT 2320 staff will offer a combined 50+ office hours per week. All students enrolled in the course are invited to utilize any and all of the 50+ available office hours. A complete schedule of these office hours, including detailed information regarding protocol, can be found at: Carmen > AU17 BUSMGT 2320 > Modules > Syllabus and General Information > COURSE INFO: Office Hours
E-MAIL	General course and concept questions should be e-mailed to FCOB-ms2320ta@osu.edu. All BM2320 staff, including instructors, are users on this list-serve account. Questions/concerns of a personal nature, requests for special consideration, and inquiries regarding course grades should be sent to your *Lecture* instructor (see addresses in the Staff information above). The following requirements apply to all e-mail messages to both the FCOB-ms2320ta@osu.edu address and your lecture instructor's address: - All communications must use secure OSU e-mail. Do not use gmail, yahoo, or other personal e-mail accounts. - The "Subject" must include **BM2320 /TA name /recitation day and time** If protocol is followed, you should expect a response no later than the next *business* day.

Required Preparation, Materials, Technology

PREREQUISITES	Statistics 1430 and CSE 2111 or 1113, from which we expect working knowledge. **Note: We are not able to waive prerequisites for this class.**
TEXT: **Pearson MyStatLab for** *Business Statistics, 3rd ed.* **by Sharpe , DeVeaux, Velleman** *Register for MyLab* **in Canvas (Carmen)**	**REQUIREMENT**: MyStatLab Access with included e-text = ISBN 9780321921468 OPTIONAL UPGRADE: MyStatLab Access with e-text + Print Loose-Leaf 3-hole Punched Text = ISBN 9780133873634 MyStatLab is integrated with your Carmen AU17 BUSMGMT 2320 course. To have your MyLab grades recorded in Carmen, you _must_ begin the enrollment process in Carmen. Do _not_ register directly through the Pearson web site. Please go to http://www.pearsonmylabandmastering.com/northamerica/students/get-registered-lms/index.html to find printed instructions and a brief video detailing how you register for a Pearson course that is integrated with a Canvas LMS. - Use your name as shown in our Carmen course and your OSU e-mail address. - Use your 9-digit BuckID for the special code.
CLASSROOM SUPPORT MATERIALS	Calculator –There are no requirements/restrictions with regard to model, but **_no device of any kind that can communicate with the internet/cloud/wi-fi will be allowed for quizzes and exams._** Probability tables are used in every class and are posted on Carmen. Course formula packet should be used regularly and is posted on Carmen. Personal device to connect to Carmen and MyStatLab. Please note that while cell phones can connect to Carmen and MyStatLab, functionality is diminished.
Software	Microsoft Excel with Data Analysis Add-in StatCrunch – included with MyStatLab

Technology Help

OSU	For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at https://ocio.osu.edu/help/hours, and support for urgent issues is available 24x7. **Self-Service and Chat support:** http://ocio.osu.edu/selfservice **Phone:** 614-688-HELP (4357) **Email:** 8help@osu.edu **TDD:** 614-688-8743
FISHER COB	Lab facilities are available on the lowest level of Mason Hall for use by students accepted to the FCOB. These facilities are not open to non-FCOB students, and no exceptions are ever made. For questions related to the use of these labs that the lab monitors can't answer, get help at helpdesk@fisher.osu.edu
PEARSON	See document titled "Trouble-shooting in MyStatLab" posted on Carmen.

COURSE OVERVIEW and OBJECTIVES

Vast amounts of data are collected in today's global business and economic environment. The most successful decision-makers and managers are those individuals who 1) can put this information to work effectively to guide their decision process (See examples, page 10); 2) are able to accurately communicate the statistical results that drive these decisions; 3) can work effectively as a member of a diverse team; 4) present themselves in a manner appropriate for business settings.

Objective 1: Familiarize you with some common statistical methods used for generating decision-making information from data. We focus the instruction on estimation and hypothesis testing, Analysis of Variance (ANOVA), Regression analysis and model building, and forecasting with time series. We emphasize data investigation and mastering statistical reasoning, not mathematical theory and rigor. It will be necessary, then, to learn how to employ statistical computing software to assist with the calculations.

Objective 2: Present sound templates for reporting analytical methodology used for an analysis and the conclusions reached there from.

> To achieve objectives one and two, our analytical approach will generally follow a three-step process:

> **PLAN**
> - Identify the question that needs to be answered.
> - Obtain relevant data. Understand the characteristics of the data.
> - Select a model and method. The Normal model will be stressed because of its general applicability and ease of implementation, but it is applicable only under certain conditions. Before any calculations are performed, we must verify that the data conditions support the model.

> **DO**
> - All formulas and calculations must be understood, and therefore demonstrated and practiced, in order to use the methods properly. The computational burden will be eased in practice by the use of readily available statistical computer software.

> **REPORT**
> - Proper selection of the model, accurate measurement, and a correct analysis are necessary but not sufficient for aiding in decision-making. The last phase of the process is the interpretation of the results of the analysis presented in the context of the business problem. We will emphasize contextual communication of the results of a statistical analysis to a business audience, presented in report format.

Objective 3: Promote development of skills necessary for effective team work. To achieve objective three, we will utilize group problem solving in several of our class sessions, mainly via the *Learning Catalytics* platform. Additionally, you will have four assigned "case" projects that will require you to work with a team of your classmates.

Objective 4: Encourage development of conduct consistent with expectations in the business environment. To achieve objective four, we will strongly discourage use of electronic devices for anything but class related activities; disrespectful behavior toward other meeting attendees, including the instructor and TA; arriving late to the meeting and/or leaving early. *Point deductions can and will be levied for repeat offenders.*

LEARNING OUTCOMES

At the conclusion of Business Management 2320, we expect that students will be able to:
1. Plan strategies for problem solving using the statistical models, methods, and technology introduced in the course discussions, materials, and practice.
2. Apply the most appropriate statistical models, methods, and technology to make accurate calculations.
3. Interpret the results of statistical analyses to drive decision-making.
4. Communicate the findings of statistical analyses in context to a business audience.
5. Collaborate effectively with team mates to plan, execute, and report findings from statistical analyses.
6. Recognize unethical use of statistical analyses and/or the results therefrom.

PROCEDURE

A positive, inclusive classroom environment is necessary for successful learning. To that end, we require that cell phones be turned off except when used to respond to *Learning Catalytics* questions. We require that you be on time for class, try not to enter or leave the room while class is in session, and do not talk with other students except when engaging in solicited classroom discussion or assigned group activities.

Use of ipads, notebooks, laptops, and tablets for the purposes of note taking and responding to *Learning Catalytics* questions is permitted. Using these devices for activities unrelated to class is *not* permitted. A student's privilege of using a computer in class can be revoked if such use becomes a distraction or impedes other students' ability to learn.

Begin Each Week with the "START HERE: Week # Overview" posted at Carmen > AU17 BUSMGT 2320 > Modules > Instruction Week # (dates)

HYBRID DESIGN, with the instructional week beginning on Wednesday and ending on Tuesday:
1. Asynchronous on-line learning: 30 to 45 minutes on Wednesdays to watch videos and/or complete readings that present basic concepts, followed by a brief 6-question quiz on MyStatLab.
2. Synchronous 80-minute classroom "lecture" meeting with your course instructor on Thursday. Attendance is necessary.
3. Asynchronous practice: MyStatLab homework to practice and solidify concepts in preparation for recitation on Monday or Tuesday. Additional Optional Practice is posted on Carmen with the materials for each instructional week also.
4. Synchronous 80-minute recitation meeting with your recitation leader and assistant on Monday or Tuesday. (See the separate Recitation Syllabus for recitation.)

1. *Lecture Prep – Asynchronous on-line learning on Wednesday*
  ➢ Watch assigned videos posted on Carmen in weekly instruction module and/or complete assigned readings in Sharpe, et al Business Statistics (3rd Ed) accessed on MyStatLab (usually 35 – 40 minutes)
  ➢ Complete MyStatLab Lecture Preparation Quiz based on required videos/readings
      o This is a *no* collaboration activity.
      o Each quiz will open on Sunday at 5:00 PM and close on Thursday at 7:30 AM.
      o You will have 2 attempts, each with a time limit of 30 minutes.
      o In order to "Review" the quiz after it closes, you must access and submit the quiz while it is open. We cannot open it for you after it closes.
  ➢ This component prepares you for the lecture discussion to follow on Thursday. To be successful in the class, you must invest heavily in preparation for lecture.

2. *Lecture – Synchronous 80-minute classroom meeting with your course instructor on Thursday*
  ➢ **Notes will be posted each week on Carmen > Modules > Week # > Lecture Agenda and Materials**
      o Reinforce and expand on videos/readings that were required for lecture prep
      o Demonstrate/apply new content
      o Real-world applications
  ➢ Attendance is necessary for successful completion of this course. We will encourage attendance by offering 1 bonus point for each lecture attended.
  ➢ A student response system such as *Top Hat* or *Learning Catalytics* may be used throughout lecture to check comprehension. *Learning Catalytics* is available as part of your MyStatLab subscription. Top Hat is available to all students enrolled at OSU. You will need to have a mobile device with you at each lecture class that allows you to connect to *Learning Catalytics*. While cell phones should work, in the past some students have experienced some loss of functionality; laptops, ipads, notebooks, tablets work better than phones.
  ➢ You are responsible for any announcements made during lecture and any impact that they may have on your grade.

3. *Homework – Asynchronous on-line practice*
- ➢ Homework will be provided each week in *MyStatLab*. We have not assigned a graded component to this homework, so you are not required to complete it. However, we feel very strongly that this homework practice is essential for your success in this class, and strongly encourage that you do your best to complete each one. To that end, we will assign "bonus" points for successful completion of the homework by the due date. These bonus points are added to the earned course points for each student, which can influence the final course grade. Your best 10 homework scores contribute to bonus points earned according to the following scale:
  - o 3 points per HW for earned grade ≥ 90%
  - o 2 points per HW for earned grade ≥ 85% but < 90%
  - o 1 point per HW for earned grade ≥ 80% but < 85%
- ➢ Collaboration with peers is encouraged, as teaching and learning from one another will lead to greater understanding of the course material. *Copying* another student's work is *not allowed* and will undoubtedly lead to poor exam performance.
- ➢ Each homework assignment will close at 7:59 AM on the Monday following the lecture to which it pertains.
  - o In order to "Review" the homework after it closes, you must access and submit the homework while it is open. We cannot re-open it for you after the assigned due date.
- ➢ Additional (ungraded) Practice with solutions will be posted in the Carmen modules with the material for each instructional week.

4. *Recitation – Synchronous 80-minute meeting with your recitation team on Monday or Tuesday, as scheduled.* (A separate recitation syllabus is posted on Carmen > AU17 BUSMGT 2320 > Modules > Syllabi and General Information > COURSE INFO: Syllabi. Read it carefully.)
- ➢ **You will be taking a quiz during recitation in Week 2 to gauge your Stat1430 comprehension.**
  - o This quiz accounts for 7.5% of your BUSMGT 2320 course grade.
  - o Opportunities for some remediation to improve your quiz grade will be available. Look for details to be posted on Carmen > AU17 BUSMGT 2320 > Modules > Exams and Quizzes.
- ➢ Regular attendance at recitation is required; this is a graded component.
  - o Every student will be allowed to discount 3 recitation scores in order to manage life's speed bumps, including emergencies, technology failures, illness, work, interviews, athletic events, etc. If you will need to miss more than 3 recitations, you forfeit the associated points.

EVALUATION

Grade Components		
	Item Points	Percentage
Stat1430 Comprehension Quiz (N)	75	7.5
2 Midterm Exams** (N)	2 @ 200 = 400	40
Final Exam** (N)	225	22.5
Technology Assignment (N)	30	3
2 Cases	2 @ 60 = 120	12
Recitation Scores	10 @ 10 = 100	10
Lecture Prep Quizzes (N)	10 @ 5 = 50	5
Total	1000	100

An average of 50% or higher on the combined midterm and final exams is required to pass the class, regardless of performance on the other components. **This is a necessary, but not sufficient, requirement.

Grading Scale: The class earned distribution will adhere as closely as possible to the Ohio State University recommended distribution. The *anticipated* distribution is:

A = 93% and above	B+ = 87% to 89.9%	C+ = 77% to 79.9%	D+ = 65% to 69.9%
A- = 90% to 92.9%	B = 83% to 86.9%	C = 73% to 77.9%	D = 60% to 64.9%
	B- = 80% to 82.9%	C- = 70% to 72.9%	

Exams:
- ➢ An average of 50% or higher on the exams is required to pass the class, regardless of performance on the other components. This is a necessary but not sufficient requirement.
- ➢ MAKEUP exams
  - o In cases of known conflicts, students must take the exam prior to the regularly scheduled time.
  - o In cases of unplanned absence due to University approved circumstance (e.g., death of family member, personal hospitalization, etc.), we will provide a make-up exam at a later date, provided proper supporting documentation (e.g., a physician's note, ER paperwork, obituary, etc.) is submitted. Each decision of potentially allowing a make-up exam is made by the Lecture instructor on a case-by-case basis.
  - o You MUST contact your Lecture instructor prior to the scheduled exam and as soon as you know of a potential problem or conflict with an exam date. Alternative methods (e.g., oral exam, essay) of testing may be used for make-up exams. If you are experiencing an extreme situation or emergency, please notify the instructor via email and/or office voice mail ASAP. (Please see page 1 of the syllabus for e-mail address and phone number.)
- ➢ REQUIRED MATERIALS (formula pages, probability tables) will be provided.
- ➢ PENCIL must be used to write the exam. Scantron forms are regularly used.
- ➢ CALCULATOR is necessary. You are required to supply your own calculator; we do not have replacements available during the exam. There are no restrictions/requirements regarding calculator model other than …
- ➢ NO INTERNET, Wi-Fi, OR CLOUD access is allowed.

Technology Assignment and 2 Group Cases: Learning theory and techniques is necessary but not sufficient for statistical analysis in today's business world. Statistical analysis in support of business decisions requires the manager to understand statistical software and interpret statistical results. Whether you are charged with performing the statistical analysis or not, you must be able to determine whether presented statistical results make sense and are reasonable.
- ➢ Require the use of statistical computing software:
  - o Excel, Excel's Data Analysis Add-in, StatCrunch which is included in MyStatLab
  - o Manual calculations will not be accepted unless the item instructions indicate otherwise.
- ➢ Detailed information will be provided for the Technology Assignment and each case on **Carmen >** AU17 BUSMGT 2320 > **Modules > Cases.**
- ➢ **The Technology Assignment is to be completed by each individual** with *no collaboration*. Its main purpose is to introduce everyone to the software in preparation for the group case assignments.
- ➢ **2 Group Cases will be completed by teams**
  - o Teamwork: You will work with a group of your peers to complete each case. The members of each team will be determined by the instructor.
  - o We cannot control when a student will drop the class or simply refuse to participate, so be prepared to solve the entire case, no matter what.
  - o Each case will allow you to practice and improve not only your statistical skills, but also your written communication skills. Your assignment submission should be worthy of presentation in a professional setting.
  - o Each student's contribution to their group's case solution will be peer evaluated by the other team members. Negative peer evaluations will result in a lowered case grade for the student. The assigned grade can be 0.
    - ▪ Be advised that students given low peer evaluation scores will be teamed together for the next case or may be required to complete the next case alone.

GRADE APPEAL POLICY: Although we make every effort to grade in a consistent and fair manner, occasionally an error is made or a student feels that an error has been made. Any notification of a missing grade or request for re-evaluation of a grade must be **submitted, in writing, within two weeks** of grade availability. Any re-grading of work will result in the entire document being re-evaluated.

COMMUNICATIONS REGARDING GRADES: Due to increased security concerns by the University regarding "sensitive" information, *absolutely no* student grade information will be shared via e-mail.

DISABILITY ACCOMMODATION

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated. Students with such accommodation must inform the instructor as soon as possible of their needs. In the case of special exam accommodation, you, the student, are responsible for ensuring that your proctor form has been properly filled out, signed, and returned to the Office for Disability Services according to their scheduling requirements. If you fail to do so, and ODS will not provide proctoring for you, you will take the exam as scheduled for the class with no special provision. The Office for Disability Services is located in 098 Baker Hall, 1l3 West 12th Avenue; telephone 292-3307, TDD 292-0901; General business email: slds@osu.edu ; Exam accommodations email: slds-exam@osu.edu

GRADUATING SENIORS

Graduating seniors must make their status known to their instructor at the beginning of the semester and follow up with a reminder during the last week of classes.

TITLE IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu"

ACADEMIC INTEGRITY (ACADEMIC MISCONDUCT)

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If we suspect that a student has committed academic misconduct in this course, we are obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.
If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact one of the instructors.

Other sources of information on academic misconduct (integrity) to which you can refer include:

The Committee on Academic Misconduct web pages (oaa.osu.edu/coam/home.html)

Ten Suggestions for Preserving Academic Integrity (oaa.osu.edu/coam/ten-suggestions.html)

APPLICATIONS

Real life problems have unique characteristics. To help prepare you to handle the idiosyncrasies that life will throw at you, the cases and exams will not necessarily mimic the examples in the text and lectures; you may have to extrapolate your knowledge somewhat. Developing the proficiency to model and solve unique problems requires significant practice; it will not come simply from watching someone else. It is important to develop a strategy for problem solving by doing regular practice.

The application of Data Analytics, which includes statistical analysis, in the business arena continues to increase. Individuals with strong analytical skills are in high demand in all areas of business.

Accounting
- Estimate mean amount receivable among all customers
- Estimate costs by determining the relationship between a cost and some measure of the level of activity creating that cost, e.g., selling expenses and total sales, direct labor costs and batch size, electricity costs and hours of machine time

Finance and Economics
- Estimate average returns on investment
- Measure risk associated with investment instruments or portfolios
- Estimate relationship between price and demand
- Estimate relationship between performance of individual stock and the performance of a stock index

Human Resources
- Predict employee retention
- Assess relationship between employee screening tests and job success
- Estimate relationship between salary and employee characteristics to guard against discrimination or to explain severance packages

Marketing
- Understand market segmentation - estimate characteristics of likely consumers of a product
- Estimate exposure to advertising
- Estimate market share

Operations Management
- Estimate expected completion time of a project
- Estimate demand for a product during lead time
- Estimate relationships between revenues or costs and proximity to suppliers, skilled labor, etc.
- Determine service level

…. And so many more!

TIPS FOR SUCCESS IN THIS COURSE

1. <u>Attend all lectures and recitations</u> with a positive attitude.

2. <u>Stay current with the course material</u>. Each week's material uses the prior weeks' material as foundation. It is difficult and risky to build on a weak foundation.

3. <u>Practice</u> as many problems as time will allow. You cannot learn to swim without getting into the water; you cannot learn to prepare gourmet meals by watching "Iron Chef;" you cannot learn statistics without putting pencil to paper (or fingers to keyboard) – a lot!

4. <u>Ask questions</u>. Seek help, in class and out. Take advantage of the 50+ weekly office hours.

5. <u>Take effective notes</u>. Often times your instructor's comments are more important than what is already printed or gets written.

6. <u>Communicate</u> any problems you are having or emergencies that arise to your instructor or TA immediately. We can be of most help when asked or notified with ample lead-time.

7. <u>Participate</u> in any open discussions.

8. <u>Form study groups</u>. Studying with other students is definitely encouraged. Articulating the material in your own words is helpful in reviewing the lecture material, as is testing each other on content.

TESTIMONIALS

 "I was asked to explain how I would attack a particular business problem in my interview with *L Brands*, and I was able to use what I learned from one of our case studies to respond. They were really impressed! I was offered an internship."

… and I was a student in your business statistics class during Autumn of 2015 at OSU. I'm currently interning at Cardinal Health as a marketing analyst, and I thought I would say thank you for all that you taught me during that class. Many of my projects require a deep understanding of the statistical models we learned about, and I've been simplifying most of the work using my experience in Minitab. Thank you for the thorough instruction and keep up the excellent work!

…. although the material had not been my favorite at the time, I learned much throughout your class. Currently, I am interning at GE Lighting in Cleveland, and *have used what you taught in class more than I thought! We are currently learning about Six Sigma with Green Belts and Black Belts, and, I understand much more than my fellow interns.* Specifically, the case studies you had used in class have helped a great deal. I just wanted to shoot you an email thanking you for the class. Even though the material was hard at first, *understanding even the basics have benefitted greatly in the workplace*.

I just want to thank you for helping me during office hours... Honestly, it was intimidating to come to the first office hour, but after getting to know each other better and you helping me answer my questions and understand concepts, I felt like I was a fool for not coming earlier before midterm 1!!! With all the professors I've had up until my 2nd year, I think you've been the most helpful and influential. Thanks you so much, again for a great semester!

I just wanted to send you a quick e-mail. I know I told you this in your office before the final but I wanted to let you know again how much I **appreciated your class**. I received a B this semester in your class and it was the hardest B I've ever worked for. **From your class I learned how to study and balance things on a whole new level** …..

Tentative Course Schedule – Autumn 2017

L = lecture, R = Recitation, E = Exam

Week		Dates	Topic	Reading Assignment	Key Dates
1	L	Th, 8/24	Course Introduction Intro to MyStatLab, Stat1430 Review(?)	General Review of Stat1430	MyStatLab Bonus Q0
2	R	M, 8/28 T, 8/29	Stat1430 Retention Quiz		
2	L	Th, 8/31	One-sample Inference [μ and p] Intro to Student's t	Chapter 9.2 – 9.4, Chapter 10 Chapter 11 Chapter 12.1 – 12.4	MyStatLab Q1
3	R	M, 9/4 T, 9/5	**Labor Day - no classes Monday Tuesday recitations cancelled**		
3	L	Th, 9/7	HT Part II [μ and p] – Type I Error, Type II error, Power	Chapter 12.5, 12.6	MyStatLab Q2 Technology Assign Due
4	R	M, 9/11 T, 9/12	Review/Practice/Evaluation - HT		
4	L	Th, 9/14	Two sample Z, Two sample t [$\mu_1 - \mu_2$] Paired t [μ_D]	Chapter 13.1 – 13.5 Chapter 13.6, 13.7	MyStatLab Q3
5	R	M, 9/18 T, 9/19	Review/Practice/Evaluation – [$\mu_1 - \mu_2, \mu_D$]		
5	L	Th, 9/21	Two Sample Z Inference: [$p_1 - p_2$]	Chapter 14.5 Supplemental Notes	MyStatLab Q4
6	R	M, 9/25 T, 9/26	Review/Practice/Evaluation – Midterm Prep		
6	E	W, 9/28	Midterm 1, 8:00 PM, room tba		Midterm 1
6	L	Th, 9/29	Chi-square Tests	Chapter 14.1 – 14.4, 14.6	
7	R	M, 10/3 T, 10/4	Review/Practice		
7	L	Th, 10/5	One-way ANOVA – Part I	Chapter 20.1 – 20.7	MyStatLab Q5 Case 1 Due
8	R	M, 10/9 T, 10/10	Review/Practice/Evaluation – One-way ANOVA		
8	L	Th, 10/12	**Autumn Break No classes**		

Week		Date	Topic	Reading Assignment	Key Dates
9	R	M, 10/16 T, 10/17	Review/Practice/Evaluation – One-way ANOVA		
	L	Th, 10/19	ANOVA – Part II	Chapter 20.8 – 20.10	MyStatLab Q6
10	R	M, 10/23 T, 10/24	Review/Practice/Evaluation - ANOVA		
	L	Th, 10/26	Simple Linear Regression – Part I	Chapter 4	MyStatLab Q7
11	R	M, 10/30 T, 10/31	Review/Practice/Evaluation – SLR I		
	E	W, 11/1	Midterm 2, 8:00 PM, room tba		Midterm 2
	L	Th, 11/2	Simple Linear Regression – Part II	Chapter 4.8 – 4.11 Chapter 15 Chapter 16.1 – 16.3	
12	R	M, 11/6 T, 11/7	Review/Practice/Evaluation - SLR II		
	L	Th, 11/9	Multiple Regression – Part I	Chapter 17.1 – 17.5	MyStatLab Q8
13	R	M, 11/13 T, 11/14	Multicollinearity Practice/Review/Evaluation – MR I	Chapter 18.5	
	L	Th, 11/16	Multiple Regression – Part II	Chapter 16.6, 16.7 Chapter 18.1, 18.2, 18.6	MyStatLab Q9
14	R	M, 11/20 T, 11/21	Review/Practice/Evaluation – MR II		
	L	Th, 11/24	Thanksgiving Holiday – No classes		
15	R	M, 11/27 T, 11/28	Practice/Review/Evaluation –		
	L	Th, 11/30	Forecasting with Time Series	Chapter 19	MyStatLab Q10 Case 2 Due
16	R	M, 12/4 T, 12/5	Review/Practice/Evaluation - Forecasting		
	E	F, 12/8	Final Exam, 8:00 PM, room tba		Final Exam