THE OHIO STATE UNIVERSITY

Management Science / BUS-COL-BUSOBA-2320
Decision Sciences: Statistical Techniques
Autumn 2021

Instructor:

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Teaching Associate:

Name: Dr. Ismael Talke
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Office Hours: W 10:00 AM – 12:00 PM [Fisher Hall 334] ; F 9:00 AM – 11:00 AM on-line [Zoom Room]

TA Staff: Please see the Staff Directory and Office Hour Schedule posted on Carmen for a list of TAs supporting students in BUSOBA 2320, office hours, and location/Zoom Room links. **Carmen > AU21 BUSOBA 2320 > Modules > Syllabi and General Information > COURSE INFO: Office Hours.**

Class Meeting Schedule:

Synchronous Lecture: Thursday, TH 8:00 AM or TH 12:45 PM, per your registration [Zoom Room]
Synchronous Recitation: Per your registration – See Recitation Syllabus for details **(1. Carmen > AU21 BUSOBA 2320 > Syllabus, 2. Carmen > AU21 BUSOBA 2320 > Modules > Syllabi and General Information > COURSE INFO: Syllabi).**

Course Materials / Software:

"The textbook and/or courseware for this course is being provided via CarmenBooks. The fee for this material is included as part of tuition and is listed as *CarmenBooks fee* on your Statement of Account. In addition to cost-savings, materials provided through CarmenBooks are available immediately on or before the first day of class. There is no need to wait for financial aid or scholarship money to purchase your textbook. Unless you choose to opt-out of the program, you do NOT need to purchase any materials for this course at the bookstore. For more information on the program or information on how to opt out, please visit the CarmenBooks website.

- **Required:** Groebner, Shannon, Fry; *Business Statistics: A Decision-making Approach*, 10e; Pearson; ISBN: 9780135910542

  Access the courseware for this title through the MyLab/Mastering link in Carmen. Instructions for registration in MyLab and the required Access Code is provided in the *Get Started* document found in **Carmen > AU21 BUSOBA 2320 > Modules > Syllabi and General Information > COURSE INFO: Getting Started with MyStatLab.**

Prerequisites:

Statistics 1430
CSE 2111 or 1113

Course Description:

Business Operations and Business Analytics 2320 offers an introduction to the application of statistical tools used extensively in the business environment to assist the decision-maker. Topics covered include estimation and hypothesis tests about population means and proportions, chi-square tests, analysis of variance, regression analysis and model building, and forecasting with time series data. A wide variety of business problems are explored through mini-case presentations and data driven exercises, with procedural emphasis on method selection, statistical procedure, teamwork, and effective communication.

Course Learning Outcomes:

Vast amounts of data are collected in today's global business and economic environment. The most successful decision-makers and managers are those individuals/groups that can put this information to work effectively to guide their decision process, are able to accurately communicate the statistical results that drive these decisions, can work effectively as a member of a diverse team, and present themselves in a manner appropriate for a business environment. By the end of this course, students should be able to:

- Evaluate a business scenario and determine which of the statistical tools introduced in the course, if any, is most applicable for generating information from data that can aid the decision maker.
- Successfully leverage technology to apply any and all of the statistical tools introduced in the course to answer a specific question.
- Write a concise report that details the problem solving process and conclusions.
- Work effectively with a team of diverse individuals to successfully complete a challenging task.

Grading and Evaluation:

Graded assignments may come in three forms, and students should note the expectations for each in the descriptions of our class assignments below.

- **(N) Independent Work ( ):** Strictly non-collaborative, original-individual work. You may discuss this assignment only with your instructor. Discussions with other individuals, either in person or electronically, are strictly prohibited.
- **(RC) Required Collaboration ( ):** An explicit expectation for collaboration among students either in-class or outside (i.e. group work).
- **(OC) Optional Collaboration ( ):** Students are permitted, but not required, to discuss the assignment or ideas with each other. However, all submitted work must be one's original and individual creation.

Assignment Name	Points / Weight	Assignment Type
(N) Best 2 of 3 Section Test Scores @140 pts each	280pts / 28%	
(N) Comprehensive Final Exam	260 pts / 26%	
(RC) 3 Group Cases @ 80 points each	240 pts / 24%	
(RC) Best 10 of 14 Recitation Scores @ 10 pts each	100 pts / 10%	
(OC) Best 10 of 12 Lecture Prep Quiz Scores @ 7 points each	70 pts / 7%	
(OC) Best 10 of 12 Lecture Participation Scores @ 5 points each	50 pts / 5%	
TOTAL COURSE POINTS	1000 / 100%	

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

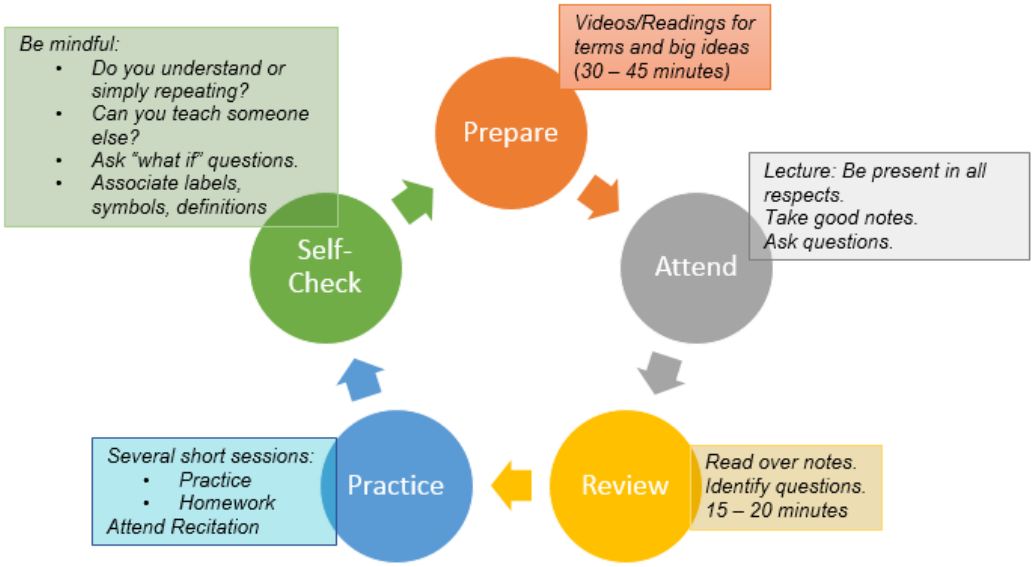
A = 93% and above	B+ = 87% to 89.9%	C+ = 77% to 79.9%	D+ = 65% to 69.9%
A- = 90% to 92.9%	B = 83% to 86.9%	C = 73% to 76.9%	D = 60% to 64.9%
	B- = 80% to 82.9%	C- = 70% to 72.9%	E = below 60%

How This Course Works:

Mode of delivery: This course includes both synchronous and asynchronous components as described below.

Pace of online activities: The content in BUSOBA 2320 builds sequentially week to week, beginning with the foundation laid in Statistics 1430. Students who fail to keep pace in their study of the material with the presentation schedule will struggle to catch up once they fall behind. The successful student in BUSOBA 2320 is one who makes every attempt to master each new concept as it is presented. This course is designed to provide the framework for reasonably short but regular engagement with the material. We emphasis an approach to learning consistent with the according to the principles of the PLRS Learning Cycle accredited to Frank L Christ.

You can expect a regular weekly cadence of 1) preparation for the week's lecture, 2) participation in lecture, 3) review, 4) participation in recitation, and 5) practice and mindful study. To be successful in BUSOBA 2320, follow the wheel:



The weekly materials will be posted in advance on your BUSOBA 2320 Carmen Course in a Module identified as "Instruction Week # (dates) – *title*". Each module includes

- START HERE: Week # Overview
- Week # Videos
- Week # Lecture Agenda and Materials
- Week # Additional Practice
- Week # Recitation Agenda and Materials
- Week # Learning Outcomes
- Any text headers relevant to remind students of important events that week.

Credit hours and work expectations: This is a **3-credit-hour course**. According to Ohio State policy, students should expect around an average of 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of "homework" (e.g., reading, support videos, and assignments).

Attendance and participation requirements:

1) **Lecture Prep – Asynchronous on-line learning prior to your scheduled lecture**
   - This component prepares you for the lecture discussion to follow that week. To be successful in the class, you must invest in preparation for lecture.
   - Watch assigned videos posted on Carmen in weekly instruction module ***or*** complete assigned readings in Groebner, *Business Statistics: A Decision-making Approach,10e* on MyStatLab (average time requirement ≈ 30 minutes). See the "START HERE: Week # Overview" content page in each weekly module on Carmen for details.
   - Complete brief quiz in MyLab and Mastering related to video/reading content. The best 10 of the 12 quiz scores count toward your course grade, allowing each student to miss/drop 2 quiz scores.

2) **Lecture – Synchronous 80-minute Zoom meeting [Zoom Room]**
   - **Your use of video during the Zoom meeting is requested/encouraged. If you do not use video, you must have a profile picture. We will not engage in class with mostly black boxes on our Zoom window.**
   - Notes will be posted each week on **Carmen > AU21 BUSOBA 2320 > Modules > Week # > *Lecture Agenda and Materials***
     - Reinforce and expand on videos/readings that were required for lecture prep
     - Demonstrate/apply new content
     - Real-world applications
   - Attendance is required and necessary for successful completion of this course. Lecture attendance correlates positively with exam performance.
   - The lecture will be recorded and posted on **Carmen > AU21 BUSOBA 2320 > Modules > Week # Lecture Agenda and Materials**, usually within 24 hours of the class end.
     - Any portion of the prepared notes that we do not cover in class will be recorded after class, and a recording thereof will also be posted.
   - The student response system *Learning Catalytics* will be used throughout lecture to check comprehension. *Learning Catalytics* is available as part of your MyStatLab subscription. You will need to have a mobile device with you at each lecture class that allows you to connect to *Learning Catalytics*.
     - Participation points are based on completion (50%) and accuracy of answer (50%).
     - The best 10 scores will count toward your course grade, allowing each you to miss 2 lectures with no penalty.
     - To earn the participation points you MUST attend your scheduled lecture. There will be no opportunity to "make up" the participation points at a different time.

3) Additional Practice – each weekly module will include 1) instructor composed questions with explanation/solution, 2) Post-lecture workbook problem with answer key
   - 1) **Carmen > AU21 BUSOBA 2320 > Modules > Instruction Week # (dates) > Additional Practice**
   - **2)** Problem can be found at the end of each set of lecture notes. Answer key is posted on **Carmen > AU21 BUSOBA 2320 > Modules > Instruction Week # (dates) > Lecture Agenda and Materials.**
   - No point value is attached to these practice exercises.

4) Recitation – Synchronous 80-minute meeting

- All recitations occur on Monday or Tuesday.
  - All but 2 recitations will meet in-person. We ***will not*** offer participation via Zoom during in-person recitations. A recording of one of the 2 on-line recitations will be posted by end-of-day Wednesday.
  - See the Recitation Schedule on Carmen for details.
- Review/practice/reinforcement of the week's content.
- Attendance is required and necessary for successful completion of this course. Recitation attendance correlates positively with test/exam performance.
- The student response system *Learning Catalytics* will be used in a team activity to check comprehension. *Learning Catalytics* is available as part of your MyStatLab subscription. You will need to have a mobile device with you at each lecture class that allows you to connect to *Learning Catalytics*.
  - Participation points are based on accuracy of answers.
  - The best 10 scores will count toward your course grade, allowing you to miss 4 recitations without penalty.
  - To earn the participation points you MUST attend your scheduled lecture. There will be no opportunity to "make up" the participation points at an alternate time.

5) Mindful Practice/Study – Wrap up the weekly module by "putting pen to paper" and quiz yourself while you are doing it. "Why am I being required to answer these questions in this order? What symbol would I use to replace this word? What would happen if I changed this value to something larger? Smaller? Reading and re-reading the notes and text will not be sufficient for you to understand the concepts and, by extension, for you to successfully complete cases and exams. Practice with a wide variety of problem scenarios is vital.

- Homework using Pearson MyLab is available each week, from which bonus points can be earned. Your best 10 HW scores will count toward your earned bonus points, to a maximum of 50 points:
  - 5 points if the HW score is 90% - 99.9999%
  - 4 points if the HW score is 80% - 89.9999%
  - 3 points if the HW score is 70% - 79.9999%
  - 2 points if the HW score is 60% - 69.9999%
  - 1 if the HW score is 50% - 59.9999%

Course technology:

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** ocio.osu.edu/help
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu
- **TDD:** 614-688-8743

Baseline technical skills for online courses

- Basic computer and web-browsing skills
- Navigating Carmen: for questions about specific functionality, see the Canvas Student Guide.

Pearson MyLab and Mastering

- For technical support See document titled "Trouble-shooting in MyStatLab" posted on **Carmen > AU21 BUSOBA 2320 > Modules > Resources.**

Required Technology skills specific to this course

- CarmenZoom virtrual meetings
- Basic Excel literacy

Required equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- Other: a mobile device (smartphone or tablet) or landline to use for BuckeyePass authentication

Required software

- Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Full instructions for downloading and installation can be found at go.osu.edu/office365help.
- StatCrunch: Statistical software included as part of the MyStatLab package.
- Learning Catalytics: Quizzing tool included as part of the MyStatLab package.

Carmen access: You will need to use BuckeyePass multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and IT support staff will work out a solution with you.

Course Assignments:

***Section Tests* – In an effort to encourage and reward timely progress through the course material, 3 fairly evenly spaced tests will be given.**

- Only (the best) 2 of the 3 tests will count toward your course grade.
- MAKEUP tests will be considered only under the most extreme circumstances. The reason for only counting 2 of the tests is to provide every student the opportunity to deal with life's unexpected speed bumps (or to enjoy life's pleasures).
    - Illness, emergency, technical failure, vacation – you name it – are reasons for not counting one of the section tests.
- The section tests will be taken by all students enrolled in BUSOBA at a common time: **Friday 8:00 PM – 9:45 PM.** You will have 90 minutes within that window to complete the test.
- The section tests will be administered on the MyStatLab platform.
- You may reference any and all course resources (book/notes, Excel, StatCrunch) during a section test.
- You may **NOT** communicate with any other persons (physically, virtually, electronically, or otherwise) during a section test.
- Test questions will include multiple choice, true false, fill-in, and numerical calculation.

- Detailed information regarding each Section Test will be posted on **Carmen > AU21 BUSOBA 2320 > Modules > Test and Exam Info > Section Test #.**

Final Exam

- The final exam will also be taken by all students enrolled in BUSOBA at a common time: **Friday, 12/10, 8:00 PM – 10:00 PM.** You will have 105 minutes within that window to complete the test.
- The final exam will be comprehensive/cumulative, covering all content discussed during the semester.
- You may reference any and all course resources (book/notes, Excel, StatCrunch) during the final exam.
- You may **NOT** communicate with any other persons (physically, virtually, electronically, or otherwise) during the final exam.
- Test questions will include multiple choice, true false, fill-in, and numerical calculation.
- Detailed information regarding the Final Exam will be posted on **Carmen > AU21 BUSOBA 2320 > Modules > Test and Exam Info > Final Exam**.

Practical Exercises (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. In addition, achieving success in a business career will require the ability to work effectively in teams. The Practical Exercises are designed to provide a preview of real world projects.

- Detailed information for each Case will be posted on **Carmen > AU21 BUSOBA 2320 > Modules > Practical Exercises > assignment name**.
- Teamwork: You will be assigned to work with a group of your peers to complete each case. Collaboration among all team members is required on all parts of the assignment. You may *not* "divide and conquer" the assignment.
- Each student's contribution to their group's case solution will be peer evaluated by the other team members. Negative peer evaluations for a team member will result in a lowered case grade for that student. The assigned grade for a non-participative student can be as low as 0.

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. You must check your scores in MyStatLab and in Carmen regularly. Claiming ignorance of a missing grade will not be accepted as a legitimate reason to revisit a grade after the two week deadline.

Grievances and Solving Problems:

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, associate dean for programs in the college, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-7-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department

E-mail communication:

All general course inquiries must be sent from a secure OSU e-mail address to fcob-busoba2320@osu.edu.

- If you have not previously activated your OSU e-mail visit http://www.oit.ohio-state.edu/userpass.html and click on 'how to activate' or call (614) 688-HELP.
- The "Subject" line must include **BUSOBA 2320-your recitations day/time-your assigned TA.**
    - Your assigned TA will be announced during your first recitation.
- Expect a response by the next business day if not sooner. If you do not receive a timely response, and you have verified that you did all things correctly on your end, please re-send your inquiry. I am very responsive to e-mail.

Instructor Feedback and Response Expectations:

- All MyLab and Mastering work is graded in real time and recorded in your MyLab Gradebook.
    - The total Lecture Prep Quiz points earned will be entered in Carmen at the end of the semester.
    - The total Homework bonus points earned will be entered at the end of the semester.
    - Section test and final exam scores will be transferred into Carmen within 2 weeks of the assessment. The timing will largely be determined by make-ups that result from University approved excuses.
- Lecture participation scores will be recorded in a spreadsheet program throughout the semester, with the semester total posted on Carmen soon after the last Lecture meeting. You can submit a request in writing to know your current lecture participation score at any time during the semester.
- Recitation scores will be posted within 1 week.
- Scores for all Practical Exercises should be available 2 weeks from submission.

Safety and health requirements:

All teaching staff and students are required to comply with and stay up to date on all University safety and health guidance, which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses.

Academic integrity:

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 (https://trustees.osu.edu/bylaws-and-rules/code) and this syllabus may constitute Academic Misconduct (https://oaa.osu.edu/academic-integrity-and-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 I suspect that a student has committed academic misconduct in this course, I am 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 me.

Disability Services:

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Copyright:

© The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

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."

…. 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** …..

I wanted to reiterate today what I said in class and that is thank you. I believe your teaching structure to be very beneficial to students and time effective. ***You truly care about the students and have always been willing to help no matter how simple the question.*** *Though this will most likely be my first C in my academic career I have learned a lot from the class and the experience overall. I hope the rest of the week goes well for you and you have an enjoyable break!*

I heard a lot of stories about how tough your class was going into this past quarter. But I actually really enjoyed your class and learned a lot of applicable skills that I will use in the future. So I'd like to thank you…..

SAMPLING OF APPLICATIONS

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

Tentative Course Schedule – Autumn 2021
PE = Practical Exercise, L = lecture, R = Recitation, T/E = Test/Exam

Optional MyStatLab Homework for potential bonus points due each Wednesday at 7:30 AM

Week	Item	Dates	Topic	e-text	Deliverables
1	**L**	Th, 8/26	Intro to Course Intro to MyStatLab	General Review of Stat1430 – Chapters 1-8	Lecture Prep MyStatLab Q1 – extended due date for start of semester – Saturday, 8/28, 11:59 PM
		Sa, 8/28 **Su, 8/29**	**Virtual Stat1430 Remediation Activity – see Carmen > Modules > Syllabi and General Information > COURSE INFO: Stat1430 Review Sessions**		
	R	M, 8/30 T, 8/31	Intro to Recitation, Intro to *Learning Catalytics* Stat1430 Review	General Review of Stat1430 – Chapters 1-8	
2	**L**	Th, 9/2	Hypothesis Tests Part I [μ and p] Includes Student's t	Chapter 9.1 – 9.2	Lecture Prep MyStatLab Q2
	R	**M, 9/6** **T, 9/7**	**Labor Day - no classes Monday** **Tuesday recitations – cancelled**		
3	**L**	Th, 9/9	HT Part II [μ and p] – Type I Error, Type II error, Power	Chapter 9.3	Lecture Prep MyStatLab Q3
	R	M, 9/13 T, 9/14	Review/Practice/Evaluation – HT		
4	**L**	Th, 9/16	Comparisons – 2 groups • Paired t [μ_D] • Two Independent Sample Comparisons [$\mu_1 - \mu_2$, $p_1 - p_2$]	Chapter 10.1 – 10.3	Lecture Prep MyStatLab Q4
	T/E	**F 9/17** **8:00 PM – 9:45 PM**	**Details: Carmen > Modules > Test/Exam > Section Test 1**	**All content to date**	**Section Test 1, MyStatLab**
	R	M, 9/20 T, 9/21	Review/Practice/Evaluation – Comparisons with 2 groups		
5	**L**	Th, 9/23	Chi-square Tests	Chapter 13	Lecture Prep MyStatLab Q5
	PE	**Sa, 9/25** **11:59 PM**	**Details: Carmen > Modules > Practical Exercises > Group Case #1**		**Group Case #1 Carmen submission**
	R	M, 9/27 T, 9/28	Review/Practice/Evaluation – Chi-Square tests		
6	**L**	R, 10/30	ANOVA Part I	Chapter 20.1 – 20.7	Lecture Prep MyStatLab Q6
	R	M, 10/4 T, 10/5	Review/Practice/Evaluation – ANOVA I		
7	**L**	Th, 10/7	One-way ANOVA – Part II	Chapter 12.1 Chapter 12.2	Lecture Prep MyStatLab Q7
	R	M, 10/11 T, 10/12	Review/Practice/Evaluation – ANOVA II		

Week		Date	Topic	Reading Assignment	Key Dates*
8	L	Th, 10/14	Fall Break – no classes		
	R	M, 10/18 T, 10/19	Introduction to Simple Linear Regression Practice/Evaluation – Review for Section Test #2		
9	**L**	Th, 10/21	Simple Linear Regression – Part I	Chapter 2.3, 14.1, 14.2	Lecture Prep MyStatLab Q8
	T/E	**F, 10/22 8:00 PM – 9:45 PM**	**Details: Carmen > Modules > Test/Exam > Section Test 2**	**All content to date**	**Section Test 2, MyStatLab**
	R	M, 10/25 T, 10/26	Review/Practice/Evaluation –SLR I		
10	**L**	Th, 10/28	Simple Linear Regression – Part II (Inference)	Chapter 14.2, 14.3, 15.5	Lecture Prep MyStatLab Q9
	PE	**F, 10/29 11:59 PM**	**Details: Carmen > Modules > Practical Exercises > Group Case #2**		**Group Case #2 Carmen submission**
	R	M, 11/1 T, 11/2	Review/Practice/Evaluation – SLR II		
11	**L**	Th, 11/4	Multiple Regression – Part I	Chapter 15.1	Lecture Prep MyStatLab Q10
	R	M, 11/8 T, 11/9	Review/Practice/Evaluation - MR I		
12	**L**	Th, 11/11	Veteran's Day – no classes		
	R	M, 11/15 T, 11/16	Multiple Regression II –Multicollinearity		
13	**L**	Th, 11/18	Multiple Regression – Part III	Chapter 15.2, 15.3, 15.5	Lecture Prep MyStatLab Q11
	T/E	**F, 11/19 8:00 PM – 9:45 PM**	**Details: Carmen > Modules > Test/Exam > Section Test #3**	**All content to date**	**Section Test 3, MyStatLab**
	R	M, 11/22 T, 11/23	Review/Practice/Evaluation - MR		
14	**L**	**Th, 11/25**	**Thanksgiving Holiday – No classes**		
	R	M, 11/29 T, 11/30	Forecasting – naïve/stationary methods	Chapter 16.1, 16.3 (omit Double Exponential Smoothing)	
15	**L**	Th, 12/2	Forecasting – Regression Based	Chapter 16.2	Lecture Prep MyStatLab Q12
	PE	**Sa, 12/4 11:59 PM**	**Details: Carmen > Modules > Practical Exercises > Group Case #3**		**Group Case #3 Carmen submission**
	R	M, 12/6 T, 12/7	Review/Practice/Evaluation - Forecasting		
16	**T/E**	**12/10 8:00 PM – 10:00 PM**	**Details posted on Carmen > Modules >Test/Exam > Final Exam**	**Comprehensive, Lectures 1 - 15**	**Final Exam, MyStatLab**