Course Syllabus
SCMS 2710-501: Business Analytics – Statistics (Hybrid)
Spring Semester, 2019
Tuesdays 5:30 PM – 8:30 PM, U of M Collierville Center #123
3.0 Credit Hours

(Syllabus current as of 1/7/2019)

Instructor: Gerard (“Jerry”) Kelly, PhD Candidate – Business Administration, Marketing

Email: gekelly@memphis.edu
Cell Phone: (623) 566-1800
Office: FCB #359

Office Hours: FCB 359 is a shared office for all Marketing PhD students; as such, it is not well-suited for meeting with students. Please contact the instructor at least 24 hours in advance to meet at the U of M Collierville Center before our weekly class, or to arrange for another mutually-convenient time and place to meet in the Fogelman Classroom or Administration Buildings on the U of M Main Campus in Memphis.

Course Overview:
This is a problem-solving course designed to teach statistical analysis applied to business and economics. Statistics is about uncertainty and probability – because these are a significant part of the business environment, an understanding of statistics is integral to all areas of business and economics. This course will explore a number of statistical theories, concepts, and tools and will integrate them into real-world application, through assigned readings, quizzes, and homework as well as class discussions, in-class problem exercises, and exams. In addition, business and economic analysis require the achievement of a certain comfort level with numerical analysis and computer software. In particular, we will utilize Microsoft Excel for a good portion of our work. Please note, however, that this is a statistics course and not an introductory course in Microsoft Excel. It is presumed that you already have familiarity with the software and we will not devote class time to learning basic skills to use the software. YouTube (opens in new window) offers many instructional videos for learning Excel.

Statistics courses are not like many other business and economics courses where there are often different ideas, opinions, and approaches that can all be correct given the circumstances. Math is at the core of statistics and in math there is generally one right answer for a problem. Statistics is also the type of course that you cannot “cram” for an exam and expect to pass it. In order to be successful in this and future statistics courses, it is imperative that you keep up with the assigned reading, quizzes, and the homework exercises. Please come to class prepared!
Course Objectives:

Business Statistics is an introduction to the basic statistical procedures necessary for the collection, summarization, visualization, analysis, and interpretation of business and economic data. The focus is on critical thinking; the course introduces the student to business statistics methods and software used for the collection, summarization, analysis, and interpretation of business data for managerial decision making. It is the course objective that students will master each of the topics below (*time permitting):

- collecting and presenting data
- measures of central tendency and variability
- basic probability theory
- samples and sampling distributions
- point and confidence interval estimation of parameters
- basic hypothesis testing for one- and two-sample tests*
- simple linear regression*

The course format allows for maximum student involvement, interest, and responsibility. Please note that your instructor reserves the right to change the course format, schedule, and the grading components and their weights, at his sole discretion, based on his assessment of the students’ capabilities and other circumstances that may arise.

Pre-Requisites/Co-Requisites:

MATH 1830 or 1910 or 1421. In addition, the student should have a basic working knowledge of Microsoft Excel and have a good grasp of high school-level algebra and applied writing skills.

Required Text & Other Materials (3 total):

1) **Textbook**: Levine, Stephan, and Szabat. (2017). Statistics for Managers Using Microsoft Excel, Student Value Edition (Loose-Leaf), 8th Edition. ISBN-13: 978-0-13-417391-7. The U of M campus bookstore only carries this version of the book and they are currently selling it for $217.75. **Please check with the financial aid office, as you may be required to purchase your textbooks from The University of Memphis Official Campus Store in order for them to be covered!** Otherwise, you may purchase the loose-leaf version or the hardcover version (ISBN-13: 978-0-13-417305-4) from another retailer, including online sources, possibly for a lower price. You may find used copies available for purchase. Note that purchasing the “international version” of the 8th Edition, or purchasing an older edition of the book is at your own risk. The instructor cannot guarantee that the material and assignments are the same as in the official required version of the textbook specified above and you will be responsible for any differences.

You are strongly urged to acquire the textbook before our first class meeting. Required readings and homework problems will be assigned during the first week. The nature of this course is such that there is no slack time in the schedule, so we need to “hit the ground running”.

2) You will need a calculator with at least the functions of square, square root, and exponents (i.e., $y^x$ or $x^y$, depending on the calculator). This basic type of calculator can typically be purchased for less than $15 at any department store, office supply store or online. You may not use a cell phone, tablet, laptop, or any other electronic device during an exam – only a calculator!

3) **Top Hat** software. Finally, you are required to purchase a subscription to **Top Hat (opens in new window)**, as weekly attendance will be taken and your pre-class quizzes will be administered through the service. The join code for this class is **648004**. **Please use your official “@memphis.edu” email address to enroll – do not use a personal email account!**
Location of Course Materials, Homework Assignments, Announcements, Quizzes, etc.:

Updated and/or additional materials that may be utilized in or required for the course (MS Excel data files, handouts, homework assignments, announcements, lecture slides, discussion topics, etc.) will be provided by your instructor on the eCourseware website (opens in new window).

Should there be a conflict between this syllabus and what is posted on eCourseware regarding assignments/exams/dates, assume that eCourseware is more up-to-date and will be the governing resource.

As mentioned, weekly attendance will be taken and your pre-class quizzes will be administered through Top Hat (opens in new window). The join code for this class is 648004. Please use your official “@memphis.edu” email address to enroll – do not use a personal email account!

Fogelman College: Learning Outcomes for Your Degree:

This course is designed to help you to meet the overall learning objectives for the BBA degree offered by the Fogelman College. You should take the time to become familiar with the overall learning objectives as a student in the BBA degree program.

- BBA Program Outcomes (opens in new window)
- BBA in Accounting Program Outcomes (opens in new window)

Course Format & Methodology

This course section is designated as a “hybrid” class, meaning that it is a combination of web-based and classroom learning:

- Students will be expected to complete assigned readings, homework problems, and quizzes before the designated weekly class. Assigned reading and homework exercises will be posted on the eCourseware website (opens in new window). Quizzes are to be taken, after you have completed the readings and homework problems, through the Top Hat site, before the next scheduled class.

- Weekly class time will be devoted to discussing the topics assigned, answering your questions about the material, and going over the assigned homework problems and quizzes.

To be successful in the course, you must do the assigned reading, homework problems, and quizzes before our weekly class. Ask questions and participate in class discussions about the material and the problems/exercises on the material. Class time will be spent reviewing the important concepts of the assigned reading, answering your questions about the material, and going over problems and assigned homework from the book. Therefore, please bring your textbook to every class!

It will be nearly impossible for you to do well in this class unless you keep up with the assigned readings, homework exercises, and quizzes. Because your exams are individually scored, it is expected that each student is able to complete the assigned homework on his or her own. However, to facilitate your learning and to emphasize the importance of teamwork in the business world, you may choose to work together on the homework assignments as long as each student understands and can answer each problem. Each of you is to keep a separate notebook for your homework assignments. I may randomly collect and review your homework notebooks for grading, so please bring them to every class!
Exams will be administered in class. You will be expected to show your work for problems that require calculations. This way, consideration (i.e., partial credit) might be given for incorrect answers where you can demonstrate that your work was on the right path but something like a simple math error caused you to come up with an incorrect answer. Likewise, points for correctly-answered questions may be subtracted for a given problem where clearly a process other than plugging numbers into a calculator or random guessing is necessary. Again – show your work on exams!

Four exams are scheduled. Exams may consist of multiple-choice, True/False, matching, and fill-in, and problems requiring calculations. Formulas and tables are provided for you on exams. At the instructor’s discretion, your lowest exam grade of the four may be dropped, provided that you have taken all four exams. In other words, an unexcused absence for missing an exam means that a grade of “0” will be given and it will count and not be dropped!

Professor’s Expectations of Students:

In general, you should assist the instructor in creating a positive, supportive environment for learning by staying engaged in the course. I will state it again – all students must come prepared for each class in order to make this form of learning work best. Additional expectations are outlined in the section “Classroom and Related Behavior” at the end of this syllabus.

Student's Expectations of the Professor:

In my role as your instructor, there are certain things you can expect from me including: a well-organized and engaging learning experience, exams graded and returned by the next class meeting, responses to emails within one business day, and feedback on any other work submitted (i.e., MS Excel and other assigned homework) by the next class meeting.

Grading and Evaluation Criteria*

Over the semester, you will have a variety of opportunities to earn points towards your final (overall) letter grade in this course. This section of the syllabus describes the assessed work you will be doing and how overall (final) letter grades will be computed. Your overall grade for the semester is based on how well you perform on a mixture of formal activities including homework, quizzes, exams, and attendance & participation, per the summary table on the next page.

Summary of Graded Activities:*  

Points earned on the assessed activities will be weighted as follows:

<table>
<thead>
<tr>
<th>Grading Component</th>
<th>% of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams 1 – 4 (top 3 scores)</td>
<td>65</td>
</tr>
<tr>
<td>Top Hat Quizzes &amp; Quiz Participation</td>
<td>20</td>
</tr>
<tr>
<td>Homework</td>
<td>5</td>
</tr>
<tr>
<td>In-class Participation</td>
<td>10</td>
</tr>
<tr>
<td>Attendance (max. bonus points)</td>
<td>5</td>
</tr>
<tr>
<td>Maximum Total Possible:</td>
<td>105</td>
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</table>
Final Course Grades:

Final course grades are earned as outlined above and are based on the following table:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Final Grade</th>
<th>Point Range</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>97 – 105</td>
<td>A+</td>
<td>77 – 79</td>
<td>C+</td>
</tr>
<tr>
<td>93 – 96</td>
<td>A</td>
<td>73 – 76</td>
<td>C</td>
</tr>
<tr>
<td>90 – 92</td>
<td>A-</td>
<td>70 – 72</td>
<td>C-</td>
</tr>
<tr>
<td>87 – 89</td>
<td>B+</td>
<td>67 – 69</td>
<td>D+</td>
</tr>
<tr>
<td>83 – 86</td>
<td>B</td>
<td>60 – 66</td>
<td>D</td>
</tr>
<tr>
<td>80 – 82</td>
<td>B-</td>
<td>Below 60</td>
<td>F</td>
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Tentative Schedule of Activities*

<table>
<thead>
<tr>
<th>Week/Dates</th>
<th>Textbook Chapters</th>
<th>Reading, Homework, Quiz, and Exam Schedule</th>
</tr>
</thead>
</table>
| Week 1: January 15 | ~ Intro 1         | ▪ Instructor/Student introductions, review syllabus  
|                  |                   | ▪ Discuss Intro – *First Things First*     
|                  | 1                 | ▪ Discuss Ch. 1 – *Defining and Collecting Data* |
| Week 2: January 22 | 1                 | ▪ Do Chapter 1 reading, homework problems, and quiz *prior to class* 
|                  | 2                 | ▪ Review Ch. 1 homework & quiz in class  
|                  |                   | ▪ Discuss Ch. 2 – *Organizing and Visualizing Variables* |
| Week 3: January 29 | 2                 | ▪ Do Chapter 2 reading, homework problems, and quiz *prior to class* 
|                  | 3                 | ▪ Review Ch. 2 homework & quiz  
|                  |                   | ▪ Discuss Ch. 3 – *Numerical Descriptive Measures* |
| Week 4: February 5 | 3                 | ▪ Do Chapter 3 reading, homework problems, and quiz *prior to class* 
|                  | Intro, 1 – 3      | ▪ Review Ch. 3 homework & quiz  
|                  |                   | ▪ Exam 1: Intro + Chapters 1, 2, 3 |
| Week 5: February 12 | 4                 | ▪ Review Exam 1  
|                  | 5                 | ▪ Discuss Ch. 4 – *Basic Probability* 
<p>|                  |                   | ▪ Discuss Ch. 5 – <em>Discrete Probability Distributions</em> |</p>
<table>
<thead>
<tr>
<th>Week/Dates</th>
<th>Textbook Chapters</th>
<th>Reading, Homework, Quiz, and Exam Schedule</th>
</tr>
</thead>
</table>
| Week 6: February 19 | 4 & 5 6          | • Do Chapters 4 & 5 reading, homework problems, and quiz *prior to class*  
• Review Ch. 4 & 5 homework & quizzes  
• Discuss Ch. 6 – *The Normal Distribution and Other Continuous Distributions*  

| Week 7: February 26 | 6 4 – 6          | • Do Chapter 6 reading, homework problems, and quiz *prior to class*  
• Review Ch. 6 homework & quiz  
• **Exam 2: Chapters 4, 5, 6**  

<table>
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<tr>
<th>Week 8: March 5</th>
<th></th>
<th><em>Spring Break, March 4 - 10 – no classes!</em></th>
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</thead>
</table>
| Week 9: March 12    | 7 8              | • Do Chapter 7 reading, homework problems, and quiz *prior to class*  
• Review Ch. 7 homework & quiz  
• Ch. 8 discussion – *Confidence Interval Estimation*  

| Week 10: March 19   | 8 9              | • Do Chapter 8 reading, homework problems, and quiz *prior to class*  
• Review Ch. 8 homework & quiz  
• Ch. 9 discussion – *Fundamentals of Hypothesis Testing: One-Sample Tests*  

| Week 11: March 26   | 9 7 – 9          | • Do Chapter 9 reading, homework problems, and quiz *prior to class*  
• Review Ch. 9 homework & quiz  
• **Exam 3: Chapters 7, 8, 9**  

| Week 12: April 2    | 10 – 13          | • Review Exam 3  
• Selected topics from Chapters 10 – 13  

| Week 13: April 9    | 10 – 13          | • Selected topics & homework from Chapters 10 – 13  

| Week 14: April 16   | 10 – 13          | • Selected topics & homework from Chapters 10 – 13  

| Week 15: April 23   | 10 – 13          | • Selected topics & homework from Chapters 10 – 13  

| Final Exam: April 30| 10 – 13          | • **Exam 4: Select topics from Chapters 10 - 13**  

*Important Footnote on Grading Evaluation Criteria, Summary of Graded Activities, and Tentative Schedule of Activities*

Your instructor reserves the right to adjust the schedule, the grading components, and the grading component weights based solely on his assessment of the class progress and daily preparations.

For a weekly schedule of readings, homework assignments, quizzes and exams please refer to the Content > Table of Contents area for this class in the eCourseware website (opens in new window).

**Final Exam & Final Exam Schedule:**

The final exam for this class is scheduled according to the Registrar’s academic calendar website (opens in new window). Per that schedule, we will have our final exam on Tuesday, April 30, 2019, in our normal classroom beginning at 5:30 PM. Please note that the final (fourth) exam is **not** cumulative.

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**Course Policies**

**Email:**

All students are required to maintain and access their University of Memphis (“@memphis.edu”) email account at least once a day. You will receive all official course correspondence at this email account. Any inability to receive incoming mail in a timely fashion (e.g., not regularly checking your email, having a “full mailbox” condition, etc.) is the student’s responsibility, not your instructor’s.

**Attendance Policy:**

While there is no penalty for missing classes per se, you will earn bonus points for attendance (see page 4 of this syllabus). Attendance will be taken daily using the Top Hat app for your smart phone or via text to their phone number. **Students may only sign in for themselves and must not relay the attendance log-in code to anyone else, including classmates not physically in attendance. Doing so will be considered a violation of the Academic Integrity policy (opens in new window).** Students not coming to class, or arriving at class after attendance has been taken, will incur an unexcused absence for that day.

**Excused Absences:** Truly extenuating circumstances may be taken into account, at your instructor’s discretion, and written proof may be required for an absence to be considered excused. Examples include a doctor’s appointment or a personal or family emergency or medical situation. If you are a member of a college sports team or are involved in other college-sponsored activities, it is your responsibility to let your instructor know well in advance of your scheduling conflicts. Students will still be responsible for all material missed during an excused absence.

Finally, violations of the cell phone/laptop/tablet policy while in class (see Classroom and Related Behavior section below) will also result in an unexcused absence for that day. For students receiving federal student loans, any lack of engagement in the course may be treated as non-attendance and potentially impact access to student loans in the future. For further information, please see the “Class Attendance” section of the Registrar’s website (opens in new window).

**Adding / Dropping:**

If you have questions about adding or dropping classes, please refer to the “Adding and Dropping Courses” section on the Registrar’s website (opens in new window).
**Academic Integrity:**

The University of Memphis has clear codes regarding cheating and classroom misconduct. Please refer to the Student Handbook section on academic misconduct for a discussion of these codes. Should your instructor have evidence that cheating has occurred, he/she may take steps as described on the campus’ Office of Student Conduct website (opens in new window). If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the Fogelman College's Standards for Academic Integrity (opens in new window).

**Classroom and Related Behavior:**

All students in the course will be considerate of their fellow students and of the instructor. For business people, professional behavior is critical to success. We in the Fogelman College of Business & Economics seek to help you achieve your potential by insisting on professional behavior inside and outside the classroom:

- Cell phone use during class is strictly prohibited, except while using the Top Hat software. If you will utilize a laptop/tablet/eReader, you must use it appropriately for class-related activity only, such as for Top Hat access, note-taking or viewing assigned material. No texting, emails, social media posts, web-surfing, shopping, doing other homework, etc. during class Failure to comply will result in an absence for you for that day (see Attendance Policy section above).
- Check your official school e-mail account (“__@memphis.edu”) at least once daily, as it is the official form of communication from your instructor to you, the student. Send emails to your instructor and other students from that account, also, not from a Gmail, Yahoo, etc. account.
- Be punctual for class. Class begins promptly at 5:30 PM and ends at 8:30 PM or when your instructor dismisses you. Do not leave a class or an exam in progress unless it’s an emergency. Please use the restrooms and take care of your phone calls, texts, and social media updates before or after class.
- Remove iPod/MP3/cell phone headsets from ears during class as well as sunglasses (unless medically required, with proof).
- Wear appropriate attire for a business classroom.
- Send professional e-mails, voice-mails, etc. When leaving a voicemail, speak clearly, spell your name if it is uncommon, and repeat your phone number. Make sure that your name and course & section are in your emails.
- Discrimination based on (but not limited to) age, race, gender, disability, social class, or sexual orientation will not be tolerated in this class, nor in the Fogelman College of Business and Economics in general. Always communicate respectfully with every one of your fellow students, your faculty members, and the college staff.

For further information, please refer to the Fogelman Code of Professionalism for Students (opens in new window).

**Extra Credit:**

There are no extra credit opportunities offered in this course. Your final grade will be computed based solely on your work on the assessed activities previously described in this syllabus.

**Inclement Weather:**

In the event that inclement weather requires the cancellation of classes at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis
has established an Inclement Weather Hotline at (901) 678-0888 as well as through the LiveSafe (opens in new window) app, an emergency alert service for students, faculty and staff, available for Android and iOS devices. This service is used in the event of an on-campus emergency, an unscheduled university closing, or a delay or cancellation of classes due to, for instance, inclement weather.

**Reporting Illness or Absence for an Exam:**

Exams and their scheduled dates are taken very seriously. You must notify your instructor at least one (1) week in advance if you must miss an exam due to a school-sanctioned event (sports team, official club, etc.) Should an emergency arise causing the student to miss an exam, it is the student’s responsibility to contact the instructor as soon as possible prior to the exam to discuss the matter, if possible. Your instructor alone will determine if the circumstances warrant offering an alternative exam date to the student or if the student will receive a grade of “0” for that exam, which is ineligible to be dropped.

**Syllabus Changes:**

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both the notification and the nature of such change(s) in the News section on the eCourseware website (opens in new window).

**Student Services:**

Please access the FCBE Student Services (opens in new window) page for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students

**Top Hat Software:**

For this class, you are required to purchase a subscription to Top Hat (opens in new window) software. The URL is [https://app.tophat.com/register/student/](https://app.tophat.com/register/student/) Attendance will be taken and chapter quizzes will be administered through the service. The join code for this class is 648004. Please use your official “@memphis.edu” email address when you enroll for Top Hat in order to facilitate the export of attendance and quiz/participation grading information into eCourseware.

Current pricing for Top Hat access is $26 for one semester; while this covers all courses that you would use during a single semester, as of now this is the only class in FCBE using the service. There is a $38 option to cover all courses you take for an entire school year and a $75 option for four years. However, given that this section of this course may be the only class using Top Hat in all of FCBE, it is unlikely that these longer-term options would save you money in the long run. Please know that I do not receive any compensation for requiring your use of Top Hat; it is simply a tool to help enhance your learning experience by providing your instructor with instantaneous feedback on your comprehension of the material and facilitating the recording of your attendance.