Course Syllabus
SCMS 3711- 8093585 and 8093588 – Business Analytics: Tools and Technologies for Managerial Decision Making
Fall Semester 2015
3.0 Credit Hours

(Last updated 8/21/2015)

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Office: FCBE #332

Office Hours: M 1:00 – 2:00 PM and 6:00 – 7:00 PM
W 4:00 – 5:00 PM and 8:40 – 9:15 PM
walk in / digital office hours / by appointment

Course Overview:

Focus on critical thinking; introduction to predictive and prescriptive analytics methods and software for analysis and interpretation of common business decisions; regression, time series, and big-data analyses; linear and network models; waiting line systems and computer simulation modeling.

Pre-Requisites/Co-Requisites:
SCMS 2710 or MATH 1530. In addition students should have Excel skills, a good grasp of basic mathematics, and applied writing skills.

Required Texts (and Related Materials):
- Headphones: In order to watch digital lectures during class time each student will need a set of personal headphones.

Recommended Texts (and Related Materials):

It is recommended (but not required) that students have access to the following textbook:

Location of Course Materials:
Course materials including: syllabus, unit outlines, lecture slides, sample problems, online quizzes, homework, homework solutions, and important announcements are located on the eCourseware website. Students are expected to print copies of the lecture slides and other materials and bring them to class.

Course Objectives:
By successfully completing this course, students will be able to:

1. Define decision models and describe the importance of such models.
2. Build and analyze forecasts.
3. Apply quantitative models to solve real world problems.
4. Develop and strengthen cognitive reflection skills.
5. Enhance Excel skills through application based homework assignments making themselves more marketable to employers.

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 program:

- [http://www.fcbeassessment.net/LearningOutcomes/BBADegreeLearningOutcomes.pdf](http://www.fcbeassessment.net/LearningOutcomes/BBADegreeLearningOutcomes.pdf)

Course Methodology
This class is organized to teach analytic skills by teaching new skills and encouraging their implementation by simulating a workplace experience. Class participation is essential in this course! In order to facilitate both self-paced learning and team projects this course will use a flipped classroom model. This means that the lectures become the “homework” and the “homework” is done in groups during class. For this teaching model to work it is essential that everyone come to class prepared just as if going to work. To encourage this preparation, each online lecture will be accompanied by an online quiz. These quizzes will account for 21% of your overall grade. In addition to the online quizzes, pop quizzes will be given throughout the semester to reinforce your efforts to master the course material. There are no “make-up” quizzes, but two quizzes will be dropped when calculating the final grade.

Student's Expectations of the Professor:
In my role as your instructor, there are certain things you can expect from me including: well-organized, challenging and engaging learning experience, response to emails within one (1) business day, and feedback on all work submitted within 7 calendar days.
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.

Classroom Participation 5%
Quizzes 21%
Projects 22%
Portfolio 7%
Exams: (Midterm, Take Home, and Final) 45%

Final Course Grades

Final course grades are earned according to the following table:

<table>
<thead>
<tr>
<th>Cut off Values</th>
<th>Assigned Grade</th>
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<tbody>
<tr>
<td>93%</td>
<td>A</td>
</tr>
<tr>
<td>83%</td>
<td>B</td>
</tr>
<tr>
<td>73%</td>
<td>C</td>
</tr>
<tr>
<td>63%</td>
<td>D</td>
</tr>
<tr>
<td>60%</td>
<td>F</td>
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</tbody>
</table>

Final Exam Schedule

The final exam for this class will be scheduled according to the Registrar’s academic calendar website.

Student Services

Please access the FCBE Student Services page for information about:

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

Attendance:
This is not an online course; attendance and group work are mandatory! It is also highly recommended that that you take advantage of office hours! While classroom time will still include some lecture time, the bulk of it will be spent on experiential learning activities and group projects. There are no “make up” projects or attendance points; participation points will be deducted beginning with the 3rd absence at 1% per absence.

Projects:
The group projects will be similar to typical homework assignments and also include additional “managerial questions” that will extend your understanding beyond the textbook to incorporate real world experiences. These projects will be assigned at the beginning of class and in some cases be due at the end of class on the same day. There are no “make up” projects; but two projects will be dropped when calculating the final grade.

Portfolio:
The models built during online lectures and group projects must be completed in Excel to encourage your marketability in the job market. While knowing the mechanics of Excel is crucial, it is also critical that you can communicate the results of your analysis. At the end of the semester each group will submit a portfolio which contains the models from the online lectures and group projects. The files in this submission will be graded for completeness, correct answers, the quality of the presentation, and accessibility. More information regarding the portfolio and the accessibility and presentation criteria is provided in ecourseware.

Exams:
The tests consist of questions based on the concepts discussed in class and may consist of T/F questions, multiple choice questions, problems, Excel spreadsheets, and model building. In general, there will be no make-up exams. In the event that extraordinary circumstances prevent you from taking the exam at the scheduled time, you must contact the instructor prior to the examination and present documentation explaining the event.

Late Submissions:
All quizzes, projects, and assignments are due no later than the due dates posted in ecourseware. There are no extensions / make up / or other exceptions for partial credit; as explained in their respective sections, you are allowed to drop specific items to accommodate planned and unforeseen circumstances while providing an even playing field for all students.

E-MAIL:
All students are required to maintain and access their University of Memphis (@memphis.edu) email account. 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. Email within the eCourseware system is not monitored and should not be used.

**Academic Integrity:**

The University of Memphis has clear codes regarding cheating and classroom misconduct. You should refer to the Student Handbook section on academic misconduct for a discussion of these codes. Note that using a “Solutions Manual” is considered cheating. Should your professor have evidence that using a “Solutions Manual” has occurred, he/she may take steps as described on the campus’ [Office of Student Conduct website](http://example.com). If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the [Fogelman College’s Website on Academic Integrity](http://example.com).

**Adding / Dropping:**

If you have questions about adding or dropping classes, please refer to this page on the [Registrar’s website](http://example.com).

**Classroom or Online Behavior:**

All participants in the course should be considerate of the other course participants and treat them (as well as their opinions) with respect. The class will operate under the assumption that any and all feedback offered is positive in nature and that the intentions of the person(s) providing feedback are strictly honorable. Insensitivity in this area will not be tolerated. If you have any questions about online communication, you should review the [Fogelman College’s Netiquette website](http://example.com).

**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 678-0888 as well as [TigerText](http://example.com), an emergency alert text messaging service to students, faculty and staff. This optional 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. Click [Here](http://example.com) for information on TigerText.

**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 notification and nature of change(s) on the course bulletin board.
<table>
<thead>
<tr>
<th>Week/Dates</th>
<th>Topic</th>
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<tbody>
<tr>
<td>WEEK 1: 8/24 &amp; 8/26</td>
<td>Introduction and What-if Analysis</td>
</tr>
<tr>
<td>WEEK 2: 8/31 &amp; 9/2</td>
<td>What-if Analysis and Linear Programming</td>
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<tr>
<td>WEEK 3: 9/9</td>
<td>Linear Programming</td>
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<td>WEEK 4: 9/14 &amp; 9/16</td>
<td>Linear Programming</td>
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<td>WEEK 5: 9/21 &amp; 9/23</td>
<td>Transportation/Network Modeling Sensitivity Analysis / Assignment Problems</td>
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<td>WEEK 6: 9/28 &amp; 9/30</td>
<td>Review and Midterm</td>
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<td>WEEK 7: 10/5 &amp; 10/7</td>
<td>Pivot Tables</td>
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<tr>
<td>WEEK 8: 10/12 &amp; 10/14</td>
<td>Fall Break and Linear Regression</td>
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<tr>
<td>WEEK 9: 10/19 &amp; 10/21</td>
<td>Linear Regression and Multiple Regression</td>
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<tr>
<td>WEEK 10: 10/26 &amp; 10/28</td>
<td>Multiple Regression and Model Building and Assign Take Home Exam</td>
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<tr>
<td>WEEK 11: 11/2 &amp; 11/4</td>
<td>Model Building and Take Home Exam</td>
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<tr>
<td>WEEK 12: 11/9 &amp; 11/11</td>
<td>Consultation and Time Series Forecasting</td>
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<td>WEEK 13: 11/16 &amp; 11/18</td>
<td>Decision Analysis</td>
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<td>WEEK 14: 11/23</td>
<td>Simulation</td>
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<tr>
<td>WEEK 15: 11/30 &amp; 12/2</td>
<td>Simulation and Review</td>
</tr>
<tr>
<td>FINAL EXAM:</td>
<td>Refer to the University’s Final Exam Schedule</td>
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</tbody>
</table>