MGMT 360: Management Analytics
Section 01 – M 5:30 to 8:15 – Tate Center 130

Professor: Christopher E. Whelpley
Office: BCTR 312
Office Hours: MW (10:00 to 11:30 or by Appointment)

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E-mail: whelpleyce@cofc.edu

Pre-Requisites: None

Required Materials
1. Reading/podcasts as updated in OAKS on a weekly basis
2. Suggested Texts:
   Field, A. Discovering Statistics Using IBM SPSS Statistics (4th or 5th edition)

A. Course Description

This course is intended to provide students with an applied introduction to how statistics can be used to solve problems in organizations and will cover introductory to advanced topics in a wide variety analytical methods common in organizations. We will emphasize the descriptive/qualitative components of statistical methods so that students not only understand the purpose of the method, but can also converse about the topic in a manner commensurate with being understood by members of organizations.

The course will focus on commonly used statistical software including SPSS and Excel. Depending on the pace of the course we may move onto more advanced software coding using either R, Python, or geographic information systems.

B. OVERALL COURSE GOALS

Students will learn analytical methods to help solve organizational problems and build their personal toolkit of analytical problem skills.

Learning Objectives & Skills:

- Actively participate in interactive dialogues on course topics
- Demonstrate knowledge of analytical methods
- Exercise problem solving skills with respect to quantitative problems
- Interpret model outputs using everyday language
- Understand syntax based approaches to common statistical programs (e.g. SPSS)
• Recommend analytic techniques to solve specific problems
• Demonstrate proficiency in presentation skills to include power point and public speaking

In addition to the specific course goals developed above, the course will promote the general goals of the School of Business as per below:

✓ **Communication skills:** Students will have to effectively discuss and present information related to performing various analytical techniques.

✓ **Quantitative fluency:** A key component of the course is building fluency in analytics and with a focus on application.

✓ **Intellectual innovation and creativity:** We will find that performing analysis offers a wide-variety of paths in solving problems. To that end, students will have to demonstrate problem-solving abilities and creativity in both formulating and implementing analytical techniques.

✓ **Synthesis:** Students will have to integrate concepts presented throughout the semester to complete the final assignment.

### C. COURSE FORMAT

The class will involve a mix of interactive lectures, class discussions, but will focus mainly on using software and building models in class. The emphasis of each class will be on understanding a method and then applying it to actual data. The applications practiced in class will be applied on the exams to show that you understand the concepts and can briefly explain it in your own words.
Grades

A final course grade will be assigned based on the following point scores:

<table>
<thead>
<tr>
<th>Points</th>
<th>Contribution (Rounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Class and Take-Home Assignments</td>
<td>100</td>
</tr>
<tr>
<td>Exams – In-Class/Take-home</td>
<td>100</td>
</tr>
<tr>
<td>Final Project</td>
<td>100</td>
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<tr>
<td>Final Presentation</td>
<td>50</td>
</tr>
<tr>
<td>In-Class Presentations</td>
<td>75</td>
</tr>
<tr>
<td>Attendance</td>
<td>25</td>
</tr>
<tr>
<td>Participation</td>
<td>25</td>
</tr>
<tr>
<td>Other - TBD</td>
<td>25</td>
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</tbody>
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Final grades will be determined using the following scale:

- A 92% >
- A- 90% to < 92%
- B+ 87% to < 90%
- B 82% to < 87%
- B- 80% to < 82%
- C+ 77% to < 80%
- C 72% to < 77%
- C- 70% to < 72%
- D+ 67% to < 70%
- D 62% to < 67%
- D- 60% to < 62%
- F <60%

Grades will be posted and available in OAKS
Course Components

In-Class and Take-Home Assignments
Each week we will have either in-class work to complete or take-home assignments that will demonstrate our understanding of the concepts covered in class.

Exams
We will have two exams during the semester that cover material discussed in class and the course assignments.

Final Project
We will have a final project, of your choosing, that will be used to demonstrate your mastery of some analytical method covered in class. We will have far more discussion on this moving forward, but my hope is this will be a topic that would involve data collection and consequent analysis.

Final Presentation
We will end the semester with your final presentation and it will cover your final project. A rubric will be available for the presentation. Pending discussion, we may have video presentations rather than class on the final Monday of the semester.

In-Class Presentation
At some point during the semester, we will have each student lead a class discussion about a news story concerning a topic that is relevant to class material. I am calling this “data in the news” but that name can certainly change. The discussion should last 8-10 minutes and I will have several exemplars prior to your presentations.

Homework/Classwork
We will be working on assignments and projects in class. I will be assessing your performance on these projects as they are assigned.

Attendance
Attendance is an essential part of class and is expected in every class.

Participation
Participation is an essential part of class and is expected in every class. Most of this class will be discussion based and, consequently, I fully expect that you will contributing consistently throughout the semester.
Expectations

The course policies described above require that you take responsibility for your own performance. I expect you to be professional, to stay informed about the progress of this class, and to complete assignments in a timely fashion. My commitment is to provide you with a useful experience and to give each student a fair opportunity to perform well in this course. If at any time you have concerns about your progress in this course, please see me.
Tentative Class Schedule – Subject to Change

The below schedule is extremely mutable and will depend on pace of class, understanding from students, and any new methods or topics that come up that we may want to include. This is the students class as much as my class and having input from students can help to shape the topics that we cover.

<table>
<thead>
<tr>
<th>Date</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/27/2018</td>
<td>Intro to Excel</td>
</tr>
<tr>
<td>9/3/2018</td>
<td>Regression and Correlation in Excel</td>
</tr>
<tr>
<td>9/10/2018</td>
<td>Moderation in Datasets</td>
</tr>
<tr>
<td>9/17/2018</td>
<td>Exam</td>
</tr>
<tr>
<td>9/24/2018</td>
<td>Intro to SPSS</td>
</tr>
<tr>
<td>10/1/2018</td>
<td>ANOVA</td>
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<tr>
<td>10/8/2018</td>
<td>Correlation and Regression</td>
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<tr>
<td>10/15/2018</td>
<td>Applied Regression (Logistic &amp; Hierarchical)</td>
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<tr>
<td>10/22/2018</td>
<td>Factor Analysis and PCA</td>
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<tr>
<td>10/29/2018</td>
<td>Exam</td>
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<tr>
<td>11/5/2018</td>
<td>Cluster Analysis</td>
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<tr>
<td>11/12/2018</td>
<td>Decision Trees</td>
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<tr>
<td>11/19/2018</td>
<td>TBD - Mapping or Relative Weights</td>
</tr>
<tr>
<td>11/26/2018</td>
<td>Advanced Topics - Python or R</td>
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<tr>
<td>12/3/2018</td>
<td>Exam</td>
</tr>
</tbody>
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***Final Project Due 12-07-18***
CofC School of Business Mission
The School of Business serves our state, region, and the global business world by educating socially responsible graduates through practical undergraduate, graduate and professional programs, and by advancing the development of our community of scholars in their intellectual pursuits. As an AACSB accredited business school with dual accreditation in accounting and business, we fulfill this Mission by:

- Engaging diverse students in personalized educational experiences that encourage a global mindset, inspire creativity and innovation, and developing leadership skills in preparation for business challenges and opportunities.
- Building a globally oriented faculty whose teaching, research, and service influence students, the business community, and other constituents.

CofC Policies and Procedures

College of Charleston Honor Code and Academic Integrity

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student’s actions are related more to a misunderstanding will handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student’s file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student’s transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration—working together without permission— is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others’ exams, fabricating data, and giving unauthorized assistance.

Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.

Students can find the complete Honor Code and all related processes in the Student Handbook at http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php
Disability Statement from the SNAP Office
Students approved for SNAP Services are instructed to meet with each of their professors during the first two weeks of classes or as soon as they are approved for services to discuss accommodations and present a copy of their SNAP-issued Professor Notification Letter (PNL). Though it is the student’s responsibility to initiate discussion regarding accommodations that may be needed, an announcement on your syllabus or in class encouraging them to do so would be helpful. Students will feel more comfortable about identifying themselves as having a disability if they are approaching someone they believe to be receptive to the discussion. Such an invitation can go a long way toward encouraging students with a disability to approach the instructor early in the course.

Sample Syllabus Statements:

- The College will make reasonable accommodations for persons with documented disabilities. Students should apply at the Center for Disability Services / SNAP, located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations are responsibility for notifying me as soon as possible and for contacting me one week before accommodation is needed.

- If there is a student in the class who has a documented disability and has been approved to receive accommodations through the Center for Disability Services / SNAP, please come and discuss this with me during my office hours.

- Any student eligible for and needing accommodations because of a disability is requested to speak with me during my office hours.”