MBAD 531
Forecasting and Business Analytics in Hospitality

Summer 2019
May 13 - 30
Mon - Thu, 9:00am - 12:30pm
301 Beatty Center

Instructor
Daniel Guttentag, Ph.D.
Assistant Professor
Department of Hospitality and Tourism Management
School of Business, College of Charleston

Contact
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Office phone: 843.953.2025

Office location
326 Beatty Center

Office hours
I will be in the office everyday immediately after class (and generally throughout the afternoon) unless otherwise stated.

Course Prerequisites

MBA 530: Principles of Revenue Management in Hospitality

Readings

There is no required textbook. Readings will be provided via OAKS.

Computer Requirement

Please bring a personal computer with Excel to class everyday.

Course Description

This course provides knowledge and hands-on skills on forecasting and business analytics used in revenue management. The students will learn to use extensive data, statistical and quantitative analysis, exploratory methods, predictive models, time series and forecasting, to make fact-based decisions and drive actions in order to maximize revenues and profits. With an extensive hands-on and case-based approach, the course will introduce the students from producing ad-hoc reporting, query and drill down, statistical analysis, time series and forecasting, to predictive modeling and optimization.
Course Objectives

• Understand the importance of data-driven decision making in the hospitality industry
• Gain hands-on skills regarding data cleaning, data analysis, and data modeling
• Know how to collect, analyze, and model data and interpret the results and support decision-making in the hospitality industry
• Understand various forecasting methods
• Survey recent tools and technologies used for business analytics and forecasting

Nondisclosure

Numerous businesses throughout the local hospitality and tourism sector have generously provided data for us to utilize in the class. Each student will be required to sign a nondisclosure agreement related to this data, and is expected to treat this data with the utmost confidentiality.
Professor’s policies

COMMUNICATION WITH PROFESSOR

- Let the instructor know as early as possible if you are struggling with class work, if you need further clarification on something, if you think you will be unable to meet a deadline, etc.

OAKS

- Students are responsible for checking OAKS regularly and staying updated on course communications. OAKS is the tool through which materials will be provided to the students.

EMAIL

- All email communication should be sent to the instructor at guttentagda@cofc.edu.
- Students must write from their CofC email accounts.
- The instructor will respond to all correspondence within two business days.
- When corresponding with the instructor, please use formal, professional language.

ABSENCE

- If you have an excusable absence (e.g., illness), as soon as possible please inform the instructor and submit any necessary documentation to the Absence Memo Office (http://victimservices.cofc.edu/absence-memo/index.php). Students must submit this documentation within one week of returning to school.

CLASSROOM BEHAVIOR

- Come to class prepared, having read the material and completed the homework assigned for each day.
- Actively participate in class discussions and activities.
- Do not eat noisy or smelly food in the classroom.
- Respect others in the classroom and value their opinions, even if they differ from your own. The classroom is a place for productive, civil, and open dialogue. Students making hateful or inflammatory comments meant simply to provoke will be asked to leave the classroom. Critique ideas, rather than the people who hold them. Allow everybody an opportunity to talk.

CLASSROOM TECHNOLOGY

- Be responsible, considerate, and respectful (to yourself, your classmates, and your instructor) in your use of electronic devices. If you are using technology inappropriately, you will be asked to turn off your device and may be asked to leave the classroom.
- Set cell phones to vibrate, and if you must take a call then please leave the room.
- No video recording of lectures.
<table>
<thead>
<tr>
<th>Week</th>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
<th>Readings / Events</th>
<th>Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Mon, May 13</td>
<td>Course intro; Intro stats/probability</td>
<td></td>
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<tr>
<td></td>
<td>2</td>
<td>Tue, May 14</td>
<td>Excel techniques</td>
<td>Readings 1</td>
<td></td>
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<tr>
<td></td>
<td>3</td>
<td>Wed, May 15</td>
<td></td>
<td>Readings 2, 3</td>
<td></td>
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<td></td>
<td>4</td>
<td>Thu, May 16</td>
<td></td>
<td>Readings 4</td>
<td>Wild Dunes</td>
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<tr>
<td>2</td>
<td>5</td>
<td>Mon, May 20</td>
<td>Forecasting</td>
<td>Readings 5</td>
<td>Kiawah</td>
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<tr>
<td></td>
<td>6</td>
<td>Tue, May 21</td>
<td>Data visualization</td>
<td>Excel quiz</td>
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<td>7</td>
<td>Wed, May 22</td>
<td></td>
<td></td>
<td>Bennett</td>
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<td></td>
<td>8</td>
<td>Thu, May 23</td>
<td></td>
<td>Readings 6</td>
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<tr>
<td>3</td>
<td>-</td>
<td>Mon, May 27</td>
<td>[Memorial Day - no class]</td>
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<tr>
<td></td>
<td>9</td>
<td>Tue, May 28</td>
<td>Correlation and regression</td>
<td>Readings 7</td>
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<td></td>
<td>10</td>
<td>Wed, May 29</td>
<td>Project presentations</td>
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<td></td>
<td>11</td>
<td>Thu, May 30</td>
<td>FINAL EXAM</td>
<td>Final exam</td>
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Course evaluation

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Component</th>
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</thead>
<tbody>
<tr>
<td>15%</td>
<td>Homework</td>
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<tr>
<td>10%</td>
<td>Reading discussions</td>
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<tr>
<td>15%</td>
<td>Excel quiz</td>
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<tr>
<td>35%</td>
<td>Group project</td>
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<tr>
<td>25%</td>
<td>Final exam</td>
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**Homework**
Students will regularly be given homework assignments related to the topic matter of the day. Students should work independently on these assignments, but may assist one another as needed and can compare solutions once complete.

**Reading discussions**
Various sets of readings will be assigned throughout the term. Each set of readings will be discussed in class for roughly 30 minutes. Each student will be assigned one set of readings, and will be responsible for leading the discussion for that day. This should not require any formal presentation, but rather just a series of questions to guide the discussion. The discussion should focus on critiquing the readings and exploring how they relate to the work of revenue managers.

**Excel quiz**
An in-class quiz will be given to test students’ abilities with the various Excel techniques that have been taught. Students will be permitted to use their notes (or online content) during the quiz. However, there will be a set time limit for completing the quiz.

**Group project**
Students will work in small groups on a project that involves applying various learnings from the course. Further information regarding this project will be provided in due course.

**Final exam**
A final exam will be given on the final day of class, which will cover all of the material learned throughout the term.

**Grade scale**

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<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
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<tr>
<td>B+</td>
<td>85-89</td>
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<tr>
<td>B</td>
<td>80-84</td>
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<tr>
<td>C+</td>
<td>75-79</td>
</tr>
<tr>
<td>C</td>
<td>70-74</td>
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<tr>
<td>F</td>
<td>0-69</td>
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School of Business learning goals

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment Method and Performance Expected</th>
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<tbody>
<tr>
<td>What will students know and be able to do when they complete the course?</td>
<td>How will each outcome be measured? Who will be assessed, when, and how often? How well should students be able to do on the assessment?</td>
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**COMMUNICATION SKILLS:**
Students will demonstrate the ability, via both written and spoken word, to effectively present, critique, and defend ideas in a cogent, persuasive manner.

**Assessment Method and Performance Expected**
Students will produce reports and make presentations in which they explain their analyses and interpretations of hospitality data.

**INTELLECTUAL INNOVATION AND CREATIVITY:**
Students will be able to demonstrate their resourcefulness and originality in addressing extemporaneous problems.

**Assessment Method and Performance Expected**
Students will analyze various forms of hospitality data and will be tasked with devising optimal methods for analyzing and presenting such data.

**GLOBAL CIVIC RESPONSIBILITY:**
Students will be able to integrate knowledge and skills in applications that facilitate student articulation and response to social, ethical, environmental and economic challenges at local, national and international levels.

**Assessment Method and Performance Expected**
Students will explore issues related to data privacy and ethics.

**SYNTHESIS:**
Students will demonstrate the ability to integrate knowledge from multiple disciplines incorporating learning from both classroom and non-classroom settings, in the completion of complex and comprehensive tasks.

**Assessment Method and Performance Expected**
Hospitality revenue management is intrinsically linked with other areas, including marketing, sales, communications, and management. Students will need to draw on their prior education in such areas as part of regular course activities.

**QUANTITATIVE FLUENCY:**
Students will demonstrate competency in logical reasoning and data analysis skills.

**Assessment Method and Performance Expected**
This course focuses specifically on quantitative data analysis.

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**Center for Student Learning**

I encourage you to utilize the Center for Student Learning’s (CSL) academic support services for assistance in study strategies and course content. They offer tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and the services are available to you at no additional cost. For more information regarding these services please visit the CSL website at [http://csl.cofc.edu](http://csl.cofc.edu) or call (843)953-5635.
Writing Lab

I encourage you to take advantage of the Writing Lab in the Center for Student Learning (Addlestone Library, first floor). Trained writing consultants can help with writing for all courses; they offer one-to-one consultations that address everything from brainstorming and developing ideas to crafting strong sentences and documenting sources. For more information, please call 843.953.5635 or visit http://csl.cofc.edu/labs/writing-lab/

Attendance Policy

Because class attendance is crucial for any course, students are expected to attend all classes. Participation in college-sponsored activities, where students are official representatives of the College of Charleston, may result in absence(s). I will recognize absences in which students are official representatives of the College of Charleston (such as intercollegiate academic or athletic team competition, or academic program sanctioned research presentation or artistic performance) as excused. I will make a reasonable accommodation for formal graded work (such as exams, presentations, papers) when a student misses class for an event at which s/he is an official representative of the College of Charleston. Examples of reasonable accommodations might include: rescheduling an exam, altering presentation times, or flexibility in assignment submission dates. Students are required to submit documentation of their College representation related commitment from the appropriate College authority at least one week prior to the scheduled absence in order to be eligible for reasonable accommodations by the instructor. Regardless of any accommodation granted, students are responsible for satisfying all academic objectives, requirements, and prerequisites as defined by the instructor and the College. I will ascertain whether both excused and unexcused absences count in determining the basis for a grade of “WA,” which stands for “withdrawn excessive absences” and is equivalent to a failing grade. In the case of this course five absences may lead to a ‘WA” grade being assigned. If a student has more than the maximum allowed absences as defined in the course syllabus, the professor may assign a “WA.” Instructors are required to submit an electronic “WA” form (located in MyCharleston faculty tab) to the Registrar on or before the last meeting day of the class. The Registrar will then send an email notification to the student. The student is responsible for keeping personal addresses and contact information current through the Office of the Registrar. All students, whether absent or not, are responsible for all information disseminated in the course.
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 F is permanent. 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

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.