College of Charleston
School of Business
INFM 350: Business Analytics

Semester: Spring 2021
Section: 01
Meeting time: Tuesday, Thursday 10:50 AM – 12:05 PM
Meeting location: TCFE (Tate Center for Entrepreneurship) 304

Professor: Dr. Iris Junglas
Office: Beatty Center 306
Office Hours: Tuesday, Thursday 9:15 PM – 10:50 PM, 12:05 – 2:00 PM; and by appointment
Contact Information: junglasia@cofc.edu, https://cofc.zoom.us/my/irisjunglas

Course Description:
To successfully compete in today’s global business environment, organizations must constantly monitor, recognize and understand every aspect and every issue of their operations, their industry and the overall business environment. Corporate data is at the heart of this competition. Insights gleaned from corporate data can be used to streamline processes, drive changes in product development and inform decision-makers on how best to approach a market.

This course focuses on business analytics—an approach that entails the use of analysis, data and systematic reasoning to make business decisions. Studies have shown that organizations that use rigorous data analysis to drive decision-making can be more competitive than those that do not.

The course examines the theoretical and conceptual foundations of business analytics, its uses and contextual considerations. It zooms in on methods that have emerged from the field of business analytics and provides the opportunity to gain knowledge and hands-on experiences with algorithms and technological tools applied in the field.

Course Prerequisite:
DSCI 232 (Math 250 or higher also accepted)

Required Text:

Necessary Tools:
• Access to a computer (Windows or Mac)
• Access to the Internet in order to use OAKS, our Web-based course management system, and a variety of analytical tools that are available online, such as IBM Watson and MineMyText.
• Access to the Internet in order to download analytical software and the installation thereof. Programs will include: Tableau, Weka, and Gephi.
Final Grade Computation:
Exercise 1: 10%
Exercise 2: 10%
Exercise 3: 10%
Exercise 4: 10%
Exercise 5: 10%
Test 1: 10%
Test 2: 10%
Team Project 1: 15%
Team Project 2: 15%

Grading Scale: A: 94-100; A-: 90-93.99; B+: 87-89.99; B: 83-86.99; B-: 80-82.99; C+: 77-79.99; C: 73-76.99; C-: 70-72.99; D: 65-69.99; F: <65. No rounding—neither up nor down.

Course Assessment:

Tests: There will be two tests that assess your conceptual understanding of the principles taught. Both will predominantly focus on the book. Tests are not comprehensive.

Exercises: Individual exercises involve a data set, a tool, and a business need. Exercises are individual assignments and are intended to train and challenge students’ analytical thinking. Late submissions for exercises will be accepted but will incur a penalty of two points per day.

Team Projects: Team projects are conducted in teams of two. Team project 1 is a qualitative, hands-on project that requires students to engage with the business community by conducting an interview with a person of their choice in the realm of business analytics. Team project 2 is a quantitative, hands-on project that requires students to identify a suitable research question and to answer this question using an appropriate data set and the right application of analytical tools, techniques and concepts learned in class. Late project submissions will be accepted but will incur a penalty of two points per day.

Participation: While not graded, interaction is a significant part of this class. Business analytics is a highly creative process and requires a constant challenge of the status-quo. I hope you will soon realize that the more questions you ask, the better for you and me.

School of Business Learning Goals:

Communication Skills
Students will analyze quantitative as well as qualitative data and present findings in written form as well as in form of presentations. In addition, students will provide briefings of the latest trends in business analytics.

Quantitative Fluency
Students will use various analytical tools to analyze data sets. More specifically, they will gain experience with business applications in the areas of descriptive, predictive and prescriptive analytics.

Global and Civic Responsibility
Students will describe the ethical as well as corporate issues associated with data analytics. Students will conduct interviews with employees associated with, or working in, the area of business analytics as part of a group assignment.
Intellectual Innovation and Creativity

Students are required to identify a business and/or societal problem, analyze the appropriate data set, and offer recommendations to solving the problem. Students will have to choose what works best among the set of tools they have learned.

Synthesis

After gaining training and exposure to a variety of analytical tool sets, and interviewing a person in the business analytics field, students will apply those experiences to a comprehensive data project. Students will become aware how companies are/could be leveraging these technologies for competitive advantage.

Course Policies:

Course Delivery Method: OAKS (for all instructional modalities)

OAKS, including Gradebook, will be used for this course throughout the semester to provide the syllabus and class materials and grades for each assignment, which will be regularly posted.

It is the student’s responsibility to ensure that all grades entered are correct. If I have made a mistake, the student has two weeks from when the assignment/exam was handed back to notify me of the mistake. Failure to notify me within this time frame will result in the recorded grade becoming permanent.

Continuity of Learning (for hybrid classes with face-to-face meetings)

Due to social distancing requirements, this class will include a variety of online and technology enhanced components to reinforce continuity of learning for all enrolled students. Before the drop/add deadline, students should decide whether the course plan on the syllabus matches their own circumstances.

During the course of class, in response to the development of COVID-19, the course delivery mode could be switched among face-to-face, online, or hybrid. The students need to make sure that their study will not be interrupted by the change of the delivery mode.

Recording of Classes (via Zoom)

Class sessions will be recorded via both voice and video recording. By attending and remaining in this class, the student consents to being recorded. Recorded class sessions are for instructional use only and may not be shared with anyone who is not enrolled in the class.

Inclement Weather, Pandemic or Substantial Interruption of Instruction

If in-person classes are suspended, I will announce a detailed plan for a change in modality to ensure the continuity of learning. All students must have access to a computer equipped with a web camera, microphone, and Internet access. Resources are available to provide students with these essential tools.

Attendance: Because class attendance is crucial for any course, students are expected to attend all classes of each course in which they enroll, including this course. Instructors maintain the authority to determine how absences will be addressed.

Regardless of any accommodation granted, students are responsible for satisfying all academic objectives, requirements, and prerequisites as defined by the instructor and the College. All students, whether absent or not, are responsible for all information disseminated in the course.

Classroom Conduct for In-Classroom Sessions:

- Please turn off your cell phone

Classroom Conduct for ZOOM Sessions:

- Please turn off your cell phone
• Please turn on your video camera

Questions and Problems: You are encouraged to ask questions during class and office hours.

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 XXF 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 XX 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 Statements:

Any student eligible for and needing accommodations because of a disability is requested to speak with the professor during the first two weeks of class or as soon as the student has been approved for services so that reasonable accommodations can be arranged.

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

This College abides by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. If you have a documented disability that may have some impact on your work in this class and for which you may require accommodations, please see an administrator at the Center of Disability Services/SNAP, (843) 953-1431) or me so that such accommodation may be arranged.

For more information, you may visit the disability services website: http://disabilityservices.cofc.edu/
Center for Student Learning:
The Center for Student Learning’s (CSL) academic support services provide assistance in study strategies, speaking & writing skills, and course content. Services include 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 or call (843) 953-5635.

Mental & Physical Wellbeing:
At the college, we take every students’ mental and physical wellbeing seriously. If you find yourself experiencing physical illnesses, please reach out to student health services (843.953.5520). And if you find yourself experiencing any mental health challenges (for example, anxiety, depression, stressful life events, sleep deprivation, and/or loneliness/homesickness) please consider contacting either the Counseling Center (professional counselors at http://counseling.cofc.edu or 843.953.5640 3rd Robert Scott Small Building) or the Students 4 Support (certified volunteers through texting "4support" to 839863, visit http://counseling.cofc.edu/ect/index.php, or meet with them in person 3rd Floor Stern Center). These services are there for you to help you cope with difficulties you may be experiencing and to maintain optimal physical and mental health.

Food & Housing Resources:
Many CofC students report experiencing food and housing insecurity. If you are facing challenges in securing food (such as not being able to afford groceries or get sufficient food to eat every day) and housing (such as lacking a safe and stable place to live), please contact the Dean of Students for support (http://studentaffairs.cofc.edu/about/salt.php). Also, you can go to http://studentaffairs.cofc.edu/student-food-housing-insecurity/index.php to learn about food and housing assistance that is available to you. In addition, there are several resources on and off campus to help. You can visit the Cougar Pantry in the Stern Center (2nd floor), a student-run food pantry that provides dry-goods and hygiene products at no charge to any student in need. Please also consider reaching out to Professor ABC if you are comfortable in doing so.

Inclusion:
The College of Charleston offers many resources for LGBTQ+ students, faculty and staff along with their allies: Preferred Name and Pronoun Information, On Campus Gender Inclusive facilities, Campus Resources, College of Charleston Reporting Portals, National Resources for Faculty & Staff, GSEC Reports, Documenting LGBTQ Life in the Lowcountry (CofC Addlestone Library Special Collections Project) College of Charleston Quality Enhancement Plan (QEP), Articles about CofC and LGBTQ+ Issues.

Final Remarks:
For other matters not specified in this syllabus, I will comply with the common policy of the College of Charleston.
**Tentative Schedule** (Dates may change)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Task</th>
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<td>1</td>
<td>Jan 12</td>
<td>Introduction</td>
<td>Read syllabus</td>
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<td>Jan 14</td>
<td>What is business analytics? (Chapter 1)</td>
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<td>Jan 19</td>
<td>Business cases of business analytics</td>
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<td>Jan 21</td>
<td>Excursion: Data models</td>
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<td>Jan 26</td>
<td>Descriptive Analytics (Chapter 2)</td>
<td>Team Project 1</td>
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<td>Jan 28</td>
<td>A taxonomy of data</td>
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<td>Feb 2</td>
<td>Data visualization</td>
<td>Test 1</td>
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<td>Feb 4</td>
<td>Introduction into Tableau</td>
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<td>TBA</td>
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<td>Data Mining (Chapter 4)</td>
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<td>Feb 16</td>
<td>Decision trees</td>
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<td>Cluster analysis</td>
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<td>Association rule mining</td>
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<td>Mar 9</td>
<td>Predictive Analytics (Chapter 5)</td>
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<td>Text mining</td>
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<td>Sentiment analysis</td>
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<td>Apr 1</td>
<td>TBA</td>
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<td>Apr 15</td>
<td>Balanced scorecards</td>
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<td>Student Presentations</td>
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