College of Charleston  
School of Business  
INFM 330: Enterprise Data Management

Semester: Fall 2020  
Meeting time: Tuesday and Thursday 10:50 am – 12:05 pm  
Meeting location: Beatty Center 120, or virtual via Zoom

Professor: Dr. Iris Junglas  
Office: Beatty Center 306, or virtual office via Zoom or Skype  
Office Hours: Tuesdays and Thursdays 9-10:50 am and 12:05-2pm; and by appointment  
Contact Information: junglasia@cofc.edu, or via Zoom or Skype

Course Description:
This course provides an introduction to the planning, design, and implementation of data management systems across the enterprise. Topics include data management strategy, data modeling, infrastructure design, query design, reporting, and visualization.

Why Enterprise Data Management matters?
The proper organization of organizational data is more than keeping “the house clean”—it lays the foundation for high quality information; and high-quality information, in turn, lays the foundation for good decision-making. With the swell of data inside and outside the organization available, businesses have an increased need to identify and extract information that helps them to improve their business processes.

Course Prerequisite:  
INFM 220 (former: DSCI 320)

Course Learning Objectives:  
1. Understand, design and use relational data models  
2. Implement a relational data model with the help of a commercial tool  
3. Understand and design business processes  
4. Combine data models with business processes  
5. Learn about non-relational approaches to data management  
6. Understand the value of high-quality data for organizational decision-making

Required Textbook:  
Print version: Prospect Press, USD 58.50 plus shipping, ISBN: 978-1-943153-03-9, or Amazon  
E-version: Amazon for ~$9.99

Optional Textbook:  
Necessary Tech Tools:
1. Access to a computer (Windows or Mac)
2. Access to the Internet in order to use
   - OAKS, our Web-based course management system
   - Azure: https://azure.microsoft.com/en-us/free/ (instructions will be provided)
   - Caspio: https://www.caspio.com (instructions will be provided)

Final Grade Computation:
Exam 1: 20%
Exam 2: 20%
Exam 3 (comprehensive): 20%
Team Project (including 4 milestones): 40%

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:

Exam: There will be three exams that test your conceptual understanding of data management principles. All three will predominantly focus on the book, but will also go beyond it and include, for example, your skills developed as part of our modeling exercises and additional readings. The third exam will be comprehensive.

Exercises: While not graded, I will ask you to design various data models. Those are exercises and intended to train and challenge your analytical thinking skills.

Participation: While not graded, interaction is a significant part of this class. Designing a database 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.

Team Project: The team project, handled by a team of two, is a semester-long data management project. It is extensive and grouped into five milestones (as detailed in the schedule) that mimics a “real-life” business project. At the end of the semester, my hope is to have a working system that is usable by people outside the classroom.

School of Business Learning Goals:

Communication Skills
Students will be introduced to contemporary data management concepts, terminology (e.g., relational databases, ERD models) and provided with an understanding of the strategic applications of data management in organizations. Students will also gain valuable experience writing and presenting a group project with regards to a “real-life” hands-on project.

Quantitative Fluency
Students will gain hands-on experience and training about advanced functionalities of data management systems, including SQL. Environments, such as Azure and Caspio, will be used to demonstrate the applicability of data management concepts as well as to expose students to prominent commercial tools.

**Global and Civic Responsibility**
Students will become aware of the current ethical issues associated with the corporate use of information, and common corporate policies that address these issues. In addition, students will learn about the role of enterprise data management and business processes across the global enterprise.

**Intellectual Innovation and Creativity**
After gaining training and exposure to effective data management systems, this knowledge will then be used to solve structured business problems. In addition, students will become aware of a variety of emerging technologies, and how companies are leveraging these technologies for competitive advantage.

**Synthesis**
Students will be asked to participate in a “real-life” project that accompanies the course throughout the semester. Students will have to integrate knowledge from outside the discipline (here: archaeology) in order to analyze, evaluate, and prototypically implement a new and improved approach to the existing data structure.

**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 XXF 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](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/ct/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.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Task</th>
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<tbody>
<tr>
<td>1 Aug 25</td>
<td>Introduction into Enterprise Data Management</td>
<td>Read syllabus</td>
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<tr>
<td>Aug 27</td>
<td>Managing Data and Information</td>
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<td>2 Sep 1</td>
<td>The Single Entity</td>
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<tr>
<td>Sep 3</td>
<td>The One-to-Many Relationship</td>
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<td>3 Sep 8</td>
<td>The Many-to-Many Relationship</td>
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<tr>
<td>Sep 10</td>
<td>Data Modeling Exercises</td>
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<td>4 Sep 15</td>
<td>One-to-One Relationships</td>
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<td>Sep 17</td>
<td>Recursive Relationships</td>
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<td>5 Sep 22</td>
<td>Team Project: Introduction</td>
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<td>Sep 24</td>
<td><strong>Exam 1</strong></td>
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<td>6 Sep 29</td>
<td>Structured Query Language</td>
<td>Milestone 1</td>
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<td>Oct 1</td>
<td>Structured Query Language</td>
<td>Milestone 1</td>
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<td>7 Oct 6</td>
<td>Team Project: Milestone 1</td>
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<td>Oct 8</td>
<td>Introduction into Caspio</td>
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<td>8 Oct 13</td>
<td>Business processes and user interfaces</td>
<td>Milestone 2</td>
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<td>Oct 15</td>
<td>Business processes and user interfaces</td>
<td>Milestone 2</td>
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<td>9 Oct 20</td>
<td>Team Project: Milestone 2/3</td>
<td>Milestone 3</td>
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<td>Oct 22</td>
<td>NoSQL and business</td>
<td>Milestone 3</td>
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<td>10 Oct 27</td>
<td><strong>Exam 2</strong></td>
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<td>Oct 29</td>
<td>Dashboards – An executive perspective</td>
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<td>11 Nov 3</td>
<td><strong>Election Day – no class</strong></td>
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<td>Nov 5</td>
<td>Data visualization</td>
<td>Milestone 4</td>
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<td>12 Nov 10</td>
<td>Spatial and temporal data management</td>
<td>Milestone 4</td>
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<td>Nov 12</td>
<td>Team Project: Milestone 4</td>
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<td>13 Nov 17</td>
<td>Text mining</td>
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<td>Nov 19</td>
<td>Data governance</td>
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<td>14 Nov 24</td>
<td>Last day for on-campus instruction</td>
<td>Milestone 5</td>
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<td>Nov 26</td>
<td><strong>Thanksgiving Holiday – no class</strong></td>
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<td>15 Dec 1</td>
<td>Team Project Presentations via Zoom</td>
<td>Milestone 5</td>
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<td>Dec 3</td>
<td>Wrap-up Learning Objectives</td>
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<td>16 Dec 8</td>
<td><strong>Final exam week begins</strong></td>
<td><strong>Exam 3</strong></td>
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<td>Dec 14</td>
<td><strong>Final exam week ends</strong></td>
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<td>Dec 16</td>
<td><strong>Final grades due</strong></td>
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