MIS330-C01 Systems Analysis and Design
[CRN 40158] Summer 2013 Syllabus
Mon-Wed-Fri, 7:00 - 10:05 PM, Planetary 127


Course Standards - Blackboard announcements are my primary method of communication. This course is rigorous and requires effort and commitment to succeed as a considerable amount of the material does not from the book:

A+ > = 97%  B+ 87-88%  C+ 77-78%  D 60-68%
A  91-96%  B  81-86%  C  71-76%  F <60%
A-  89-90%  B-  79-80%  C-  69-70%

Deliverables - All assignments must be submitted via Blackboard, which will be configured for unlimited submissions. There will be no extra credit assignments

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Homework Assignments</td>
<td>75</td>
</tr>
<tr>
<td>Group Presentation</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Homework - must be done individually and is due at the beginning of class. Be sure to follow instructions explicitly. Late submissions are not accepted but you may request an extension via email prior to due date and time - I will grant each student one, 48-hour extension per term.

Class Interaction - Students cannot answer my questions with a question (so you can learn for yourself) but I can answer students' questions with a question.

Recommendations - I do not give them for current students but may do so case-by-case for former ones. I accept LinkedIn requests only if I won't be your professor again.

Common English Usage and Grammar Errors - Please do not make the following errors (for a complete list, please see http://www.wsu.edu/~brians/errors/errors.html):

- Possessive Pronouns: it \( \rightarrow \) its (not it's, a contraction of it is); you \( \rightarrow \) your (not you're, a contraction of you are); they \( \rightarrow \) their (not they're, a contraction of they are); who \( \rightarrow \) whose (not who's, a contraction of who is)
- improper use of the work "like": then vs. than; that vs. which; lead vs. led; lose vs. loose; e.g., ("for example") vs. i.e., ("that is"); irregardless is not a word - don't use it; "data" is the plural of "datum"
- It is correct to have a '.' precede 'and' in a list of words that denotes a separation of the items as distinct. E.g., "Split the costs between Chris, Dan and Al." Meaning = Chris gets 1/2; Dan and Al get 1/2

Instructor Responsibilities

1. Provide clear and complete course rules.
2. Teach clearly, relevantly, and consistently with SOM and course objectives.
3. Grade using fair, consistent criteria.

Student Responsibilities

1. Come on time and be prepared for each class.
2. Be engaged in class - ask questions, don't accept everything at face value.
3. Submit quality work on time.

Instructor - Joseph Mortati | jmortati@gmu.edu | 703-328-5886 (before 10 PM) | Office Hours - 6:00-7:00 PM Mon-Wed-Fri in Planetary 127 or by appointment

Honor Code - Students must comply with the code's provisions or earn an F for the course.

Course Description - Information systems (IS) play a critical role in the operations of nearly every business. To optimize success, firms and organizations must ensure that such systems are designed, developed and implemented properly. Thus, IS professionals must bear a unique combination of business knowledge, technical skills, and understanding of organizational context in order to develop effective systems. Likewise, non-IS professionals must be able to understand how to contribute to the systems analysis and design process to support their functional areas.

Course Objectives - To help students gain solid foundations in the concepts, processes, and challenges in designing and managing modern systems and applications. Students will develop skills in using modern methodologies, techniques, and tools applicable to real projects so they can:

- Understand systems analysis and design processes
- Identify and model business processes and requirements
- Design database structures from business requirements
- Conceptualize and design basic user interfaces
- Identify necessary stages and tools for a given system
- Plan system implementation and support strategies
- Take part and satisfactorily perform in a systems analysis and design project team in a real-world setting.

Learning Goals - this course will teach our students to be:

- competent in their discipline
- aware of the uses of technology in business.
- knowledgeable about global business and trade
- critical thinkers.

Roles and Responsibilities - My teaching approach is that I facilitate your learning rather than lecture. All students must understand I do not give grades, I only record results.

- Instructor Responsibilities
  1. Provide clear and complete course rules.
  2. Teach clearly, relevantly, and consistently with SOM and course objectives.
  3. Grade using fair, consistent criteria.

- Student Responsibilities
  1. Come on time and be prepared for each class.
  2. Be engaged in class - ask questions, don't accept everything at face value.
  3. Submit quality work on time.

University Policies - University Catalog and Policies govern conduct of student, faculty, and staff.

Special Accommodations - must be arranged through the Disability Resource Center (DRC) at 703-993-2474. Please speak with me if you have a special need.

Required Materials - Hoffer, George, Valacich, Modern
**Tentative Schedule** - This schedule is subject to change and some textbook sections will be skipped and some material not in the book will be presented in class. Items marked below with * = material presented by the instructor and does not require student preparation; + = requires students to review additional materials on Blackboard; ^ = requires students to do outside research. The far right column lists the "toolbox" of Key Principles (marked with ☑) and Quantitative Tools (marked with ☒) with which you will leave this class.

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topics and Assigned Reading</th>
<th>Cases</th>
<th>Deliverable (pts)</th>
<th>Toolbox</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mon 7/1</td>
<td>Course Introduction; Chapter 01: The Systems Development Environment; Brief History of IT</td>
<td></td>
<td>Course Survey (0)</td>
<td>☑ Critical Thinking*; Laws of Business &amp; Information*</td>
</tr>
<tr>
<td>2</td>
<td>Wed 7/3</td>
<td>Chapter 02: Software Origins; Chapter 03: Project Management</td>
<td>Case: Denver International Airport Baggage System^</td>
<td></td>
<td>☑ Principles of IS Development+; Management Diamond^; Bottom-up vs. Top-down Planning* ☒ Weighted Average</td>
</tr>
<tr>
<td></td>
<td>Fri 7/5</td>
<td><strong>No Class - Day after Independence Day</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mon 7/8</td>
<td>Chapter 03: Project Management (continued); Chapter 04: Planning</td>
<td></td>
<td></td>
<td>☑ Brook's Law^ ☒ CPM-PERT+; Cost Estimating (NPV; Cashflow)</td>
</tr>
<tr>
<td>4</td>
<td>Wed 7/10</td>
<td>Chapter 06: Determining Requirements</td>
<td>Case: Mars Surveyor 98</td>
<td>Homework 1 (25) Project Planning &amp; Estimation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Fri 7/12</td>
<td>Chapter 07: Modeling Process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Mon 7/15</td>
<td>Chapter 07: Modeling Process (continued)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Wed 7/17</td>
<td>Chapter 08: Modeling Data</td>
<td></td>
<td></td>
<td>☑ Business Rules ☒ Entity-Relationship Diagrams (ERD)</td>
</tr>
<tr>
<td>8</td>
<td>Fri 7/19</td>
<td>Chapter 09: Designing Databases</td>
<td></td>
<td></td>
<td>☒ Relational Database Models; Normalization</td>
</tr>
<tr>
<td>10</td>
<td>Wed 7/24</td>
<td>Chapter 12: Distributed &amp; Internet Systems</td>
<td>Case: Ariane 5 Flight 501^</td>
<td></td>
<td>☑ Principles of Testing</td>
</tr>
<tr>
<td>11</td>
<td>Fri 7/26</td>
<td>Chapter 13: Implementation &amp; Maintenance</td>
<td>Case: Space Shuttle Columbia^</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Mon 7/29</td>
<td>Special Topics</td>
<td></td>
<td>Homework 3 (25) Database and User Interface Design</td>
<td>☑ Negotiation+</td>
</tr>
<tr>
<td>13</td>
<td>Wed 7/31</td>
<td>Group Presentations</td>
<td></td>
<td>Presentation (25)</td>
<td></td>
</tr>
</tbody>
</table>