# Systems Analysis and Design
## MIS 7376 – Spring 2018 – Section 19290
Melcher Hall 114 | 6 - 9pm Thursdays

## Lecturer

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**Email is the best way to reach me.** If an urgent matter arises and I'm not responding to you email you may contact the DISC Office Manager: **LaToya Brannon**, lbrannon@bauer.uh.edu , 713-743-4723

**Office Hours:** I'm only on-campus on class night. If you'd like to meet or speak face-to-face please email me to coordinate something before or after class. Conversing by e-mail or phone is also an option

**WebCT Blackboard LEARN:** http://www.uh.edu/blackboard/ click on the white button that says 'Log in here Blackboard Learn

## Class schedule

| Class | Topics / Quiz / Exam | Due before class | Assigned on this date / due before next class |
|---|---|---|---|
| Thur 18-Jan | • The Systems Analyst and Information Systems Development (Ch. 1)<br><br>• Project Selection and Management (Ch. 2) | Read '**Contingency Planning at HP**' located in the Course Content section of Blackboard, in the Articles & Misc folder | • Tech Brief 1 Topic Due Next Class: **"Why Your IT Project May Be Riskier Than You Think"** Use this resource: Harvard Business Review article by Bent Flyvbjerg; Alexander Budzier<br><br>• Complete **Role Playing Activity #1** - to be assigned via Blackboard announcement |
| Thur 25-Jan | • Project Selection and Management (Ch. 2)<br><br>• Requirements Determination (Ch. 3) | Upload **Tech Brief #1** to Blackboard<br><br>Upload **Role Playing Activity #1** to Blackboard | • Tech Brief 2 Topic Due Next Class: **What is Agile development? What are its advantages / disadvantages? What is SCRUM, and other methodologies, used to implement it?**<br><br>• Study for Quiz 1 (bring a scantron to class next week)<br><br>• Complete **Role Playing Activity #2** - to be assigned via Blackboard announcement |
| Thur 1-Feb | • **Quiz - Chapters 1 & 2** (bring scantron)<br><br>• Requirements Determination (Ch. 3)<br><br>• Use Case Analysis (Ch. 4) | Upload **Tech Brief #2** to Blackboard<br><br>Upload **Role Playing Activity #2** to Blackboard | • Tech Brief 3 Topic Due Next Class: **IT Spending Trends in 2017**<br><br>• Complete **Role Playing Activity #3** – to be assigned via Blackboard announcement |
| Thur 8-Feb | • Use Case Analysis (Ch. 4)<br><br>• Process Modeling (Ch. 5) | Upload **Tech Brief #3** to Blackboard<br><br>Upload **Role Playing Activity #3** to Blackboard | • Tech Brief 4 Topic Due Next Class: **What is Bimodal IT? Why and how are organizations grappling with it?**<br><br>• Complete **Role Playing Activity #4** – to be assigned via Blackboard announcement |

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| Thur 15-Feb | • Process Modeling (Ch. 5)<br><br>• Data Modeling (Ch. 6) | Upload **Tech Brief #4** to Blackboard<br><br>Upload **Role Playing Activity #4** to Blackboard | • No Tech Brief assigned<br><br>• Complete **Role Playing Activity #5** – to be assigned via Blackboard announcement<br><br>• Prepare for Exam 1 (bring a scantron to class next week) |
| Thur 22-Feb | • **Exam 1**<br>**Chapters 3 – 6** (bring scantron) | Upload **Role Playing Activity #5** to Blackboard | • Tech Brief 5 Topic Due Next Class: **J-TRADING: Full Circle Outsourcing**<br>Use this resource: Harvard Business Review article by Valerie Jaiswal; Natalia Levina<br><br>• No role playing activities for next class assigned |
| Thur 1-Mar | • Moving into Design (Ch. 7)<br><br>• Architecture Design (Ch. 8) | Upload **Tech Brief #5** to Blackboard | • Tech Brief 6 Topic Due Next Class: **Why is understanding CAPEX vs. OPEX important to IT leaders and what are the implications for IT?**<br><br>• Complete **Role Playing Activity #6** – to be assigned via Blackboard announcement |
| Thur 8-Mar | • User Interface Design (Ch. 9) | Upload **Tech Brief #6** to Blackboard<br><br>Upload **Role Playing Activity #6** to Blackboard | • Tech Brief 7 Topic Due Next Class: **Cloud Services, SaaS, PaaS, IaaS, software containerization; what are they, why is important, how is it changing things?**<br><br>• Complete **Role Playing Activity #7** – to be assigned via Blackboard announcement |
| Thur 15-Mar | • **NO CLASS – SPRING BREAK** | | See previous week |
| Thur 22-Mar | • Program Design (Ch. 10) | Upload **Tech Brief #7** to Blackboard<br><br>Upload **Role Playing Activity #7** to Blackboard | • Tech Brief 8 Topic Due Next Class: **Big Data, Columnar Databases and No SQL – What's the impact; why and when is it important?**<br><br>• Complete **Role Playing Activity #8** – to be assigned via Blackboard announcement |
| Thur 29-Mar | • Data Storage Design (Ch. 11) | Upload **Tech Brief #8** to Blackboard<br><br>Upload **Role Playing Activity #8** to Blackboard | • No Tech Brief assigned<br><br>• Complete **Role Playing Activity #9** – to be assigned via Blackboard announcement<br><br>• Prepare for exam 2 (bring a scantron to class next week) |
| Thur 5-April | • **Exam 2**<br>**Chapters 7 – 11** (bring scantron) | Upload **Role Playing Activity #9** to Blackboard | • Tech Brief 9 Topic Due Next Class: **ERP systems; how do they help enterprises function more efficiently?**<br><br>• No role playing activities for next class assigned |
| Thur 12-April | • Moving into Implementation (Ch. 12) | Upload **Tech Brief #9** to Blackboard | • Tech Brief 10 Topic Due Next Class: What is **IT Service Management?  What is ITIL & ITSM? What is the concept of "DevOps"?**<br><br>• Complete **Role Playing Activity #10** – to be assigned via Blackboard announcement |
| Thur 19-April | • Transition to the New System (Ch. 13) | Upload **Tech Brief #10** to Blackboard<br><br>Upload **Role Playing Activity #10** to Blackboard | • No Tech Brief assigned<br><br>• No role playing activities for next class assigned |

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| Thur 26-April | • The Movement to Objects (Ch. 14) | Last chance to turn in late Tech Briefs / role-playing activities for reduced credit | • No Tech Brief Assigned<br><br>• No in-class exercise / no task for next week<br><br>• Prepare for exam 3 (bring a scantron to class next week) |
| Thur 3-May | • **Exam 3**<br>**Chapters 12 – 14** (bring scantron) | None | |

## Important Days (see Academic Calendar)

**http://publications.uh.edu/content.php?catoid=25&navoid=9117**

## Purpose of the Course

After completing this course students will be prepared to confidently contribute to projects that aim to improve organization's business processes using software, hardware, and computer networks. Students will be able to determine the financial and operational impact of information systems and make good decisions about when and how to acquire, design, implement, or outsource information systems for an organization.

This course provides basic skills for all students who will need to know how information systems can be used to achieve business goals in small and large organizations.

I augment the class with assignments on current IT topics on which future business leaders ought to be conversant.  Also, to help re-enforce what we study, I try to share real-world examples from my career experiences.  This includes a role-playing exercise thought out the semester that's based on a real system created at HP.

## Course Textbook & Materials

Dennis, A., B. H. Wixom, and Roth, *Systems Analysis and Design*. 6th Edition, John Wiley and Sons

Paperback ISBN: 978-1-118-89784-3

Wiley eText ISBN: 978-1-118-89786-7

Also, you'll likely be asked to purchase one or two articles from the Harvard Business Review website at ~ $7 apiece.

# Grading Summary

The final grade in this class consists of…

- **One quiz** = 5%
- **Three examinations** = 60% (20% per examination)
- **Ten role-playing activities** = 20%
- **Ten "Tech Briefs"** = 10%
- **One "Tech Brief" presentation** = 5%


# Grading Details

**One quiz:**

- Includes Chapters 1 & 2. It will have about 20 questions


**Three examinations:**

- Examination 1 includes Chapters 3-6, Examination 2 includes Chapters 7-11 and Examination 3 includes Chapters 12-14

- Each will have about 50 questions

- Makeup examinations can be arranged for students with a medical doctor's letter stating the date and the reason for absence from the examination


**Role-playing activities:**

- There are a total of 10 classroom sessions in which we'll be working on a role-playing exercise based on a real-world systems development project ("The Country of Origin Management System"). We'll typically start an assignment in-class, with some portion to be completed outside class. You must upload your work to Blackboard by the start of the next class. You must complete all 10 activities for a perfect score. Assignments turned in after the due date can receive up to half credit.

**Tech Briefs:**

- You be asked to research some interesting and important topics for which master's candidates should have some basic understanding. Sources of information will be readily available through internet research. You'll complete a one-page write-up (double spaced) on the topic to be turned in the week after the topic is assigned.

- Format should be as follows:

1) Paragraph #1) a succinct statement conveying the most essential point to understand about the topic. (no more than 3 sentences)
2) Paragraph #2) personal observation / conclusion why the topic is remarkable (or not). Relate any real world experiences if you can. (no more than 5 sentences)

   *As you write paragraph #1 & #2 imagine an executive or other respected person in your organization asks you to explain the topic. This is a busy person; you have ~30 seconds of their time in conversation or reading your email response to give them the info they want and gain their trust that you are a 'go-to' person.*

3) Paragraph #3) any additional background or interesting information you'd like to include as a result of researching the topic.
4) Footer: include your references, links to articles / other sources you found on the topic. Exact format is not important.

- Each of the ten papers will count 10 points toward the total TB grade, each TB graded as follows:
  1) Degree to which brief makes succinct, salient points and draws interesting conclusions = 5 points
  2) Brief is at least one page double-spaced, but paragraph #1 & #2 **cannot** exceed one page, and otherwise follows the format described above = 5 points

**Tech Brief presentation:**

- You will present a tech brief in-class, most likely coordinating with another student. Volunteer for the topic you wish to present (first come / first serve). If there are no volunteers for a particular week, ones will be selected by me.

- Presentations are graded on a 10 point scale, each graded is as follows:
  1) Using notes is ok, but reading verbatim is not. No long pauses signaling to me that you did not practice giving the presentation = 6 points
  2) Speak loudly enough to be heard = 2 points
  3) Ability to answer at least one question, by a student, or me = 2 points

# How to calculate your final course grade

Course score = (.05)(Quiz score) + (.20)(Exam 1 score) + (.20)(Exam 2 score) + (.20)(Exam 3 score) + (.20)(number of class activities completed * 10) + (.10)(total number of points from 10 Tech briefs) + (.05)(total number of points from presentations * (100/20))

Example:
Quiz score              = 70;
Exam 1 score              = 84;
Exam 2 score              = 88;
Exam 3 score        = 80;
Number of activities completed = 9 (missed one activity)
Perfect score on 10 Tech briefs (10 points per brief) = 100
Points earned on presentation = 10

Example course score  =  (.05)(70) + (.20)(84) + (.20)(88) + (.20)(80) + (.20)(9 * 10) + (.10)(100) +  (.05)(18 * (100/20)) = 3.5 + 16.8 + 17.6 + 16 + 18 + 10 + 5 = 86.9 (A-)

The <u>letter grade</u> for the course is based on my curve of the course score. In this class the usual curve is:

| | | | |
|---|---|---|---|
| 100 | - | 92 | A |
| 91 | - | 87 | A- |
| 86 | - | 82 | B+ |
| 81 | - | 78 | B |
| 77 | - | 74 | B- |
| 73 | - | 70 | C+ |
| 69 | - | 66 | C |
| 65 | - | 62 | C- |
| 61 | - | 58 | D+ |
| 57 | - | 54 | D |
| 53 | - | 50 | D- |
| 49 | - | 0 | F |

## How to appeal your grade

Students can appeal their grade by writing a letter to the instructor that states the exam number and the question or the assignment number that they believe has a problem and what they suggest to be the correct answer or response.

## <u>Academic honesty and code of conduct</u>
In this class students are expected to adhere to the "*Bauer Code of Ethics and Professional Conduct*" as described at the Bauer web site at: http://www.bauer.uh.edu/centers/bcbe/Bauer-Code-of-Ethics-Professional-Conduct.pdf