CIS 8010
Process Innovation
(Customer-Centered Service Design)

*From Processes to Service Outcomes: An Integrated Approach*

**COURSE DESCRIPTION**
This course is about customer-centered service design. The focus is on the strategic use of information technology to improve, extend, and innovate business services to achieve the desired outcomes of both customers and service provider. The course presents an integrated approach that connects service process engines to service outcomes.

**LEARNING OBJECTIVES**
- Understand what a service is, the purpose of a service, and how to measure how well a service is working for both the customer and the service provider.
- Understand what a service process engine is and how it enables a service.
- Understand what the service interface is and how to use information technology to improve the service interface.
- Understand how to model the service process engine using the BPMN 2.0 specification and how to use process models to target improvements using information technology.
- Understand how to apply Lean and Six Sigma to improve the service process engine and the service interface.
- Understand generally how to both innovate and improve on a business service.

Overall, the intention is to differentiate you from conventional thinking and provide you with the opportunity to uniquely (and competently) contribute to discussions and decisions regarding how to apply information technology to drive the profitable growth of an organization.
PEDAGOGICAL DESIGN
This course will adopt several elements of what is loosely termed “Learning 2.0” wherein the student essentially learns how to learn and faculty become mentors to this process by assigning content and facilitating the learning process.

One aspect of this is what is called “investigative learning” which involves students investigating weekly assigned content as though they are investigative reporters. The job of the student is to apply critical thinking skills to synthesize the content. During class, the instructor summarizes the weekly content. By way of class discussion this content is synthesized into holistic meaning. The CIS 8010 sessions are structured to facilitate this mode of learning and interaction.

COURSE MATERIALS


- Download links to course presentations, articles, videos, and papers are posted on the course Website for each week.

- Students will use a mapping tool called Signavio to generate process models compliant with the BPMN 2.0 specification. Signavio is a cloud-based service (SaaS), so no software download is required. Signavio offers the service to students and instructors free of charge (under their academic initiative). Every student will need to have an account created no later than August 29th. To create a student account go to: http://www.signavio.com/bpm-academic-initiative/

CLASS SESSIONS

Class Preparation and Participation
It is paramount that students participate in synthesis discussions on the assigned content each week. To effectively do this, students need to investigate the weekly content prior to class; making thoughtful notes on this content much like an investigative reporter makes notes from different sources in order to write a news story. These notes then inform thoughtful comments during class discussion. Students should not merely scan or review the content in a cursory manner. Rather, each student is expected to apply critical thinking to do their own synthesis of the assigned weekly content prior to each class.

Team Mini-Case Presentation
Each team will present one mini-case in class. In preparing the presentation, assume that the team is a consulting company that is being paid to analyze the company's situation (problem areas) and make a set of recommendations to resolve the issue(s). For each case analysis, the team should:
• Identify the core problems and issues being faced by the organization (or the core opportunities that are potentially exploitable).
• Use the case data, both quantitative and qualitative, to analyze identified issues.
• Based on the team’s analysis, make a specific recommendation on the course of action that should be pursued by the organization.

Use a PowerPoint deck to present the team case analysis (quality is more important than quantity). The team presentation will be posted on the class Google Group forum at least 24-hours before class. Students should review this presentation before class and be prepared to ask questions.

A team presentation is to be no more than 18 minutes (the instructor will interrupt a presentation that runs over the time limit). There will be a 10-minute Q&A after the presentation (class drives this discussion). Each team member should participate in the presentation and the Q&A. The class will evaluate the team presentation (peer grading) using the following criteria:

• Relevance (25 points possible) - To what extent is the presentation relevant to the assigned course content?
• Originality (25 points possible) - To what extent are the main points in the presentation original (not merely re-stated/summarized from other documents or Websites)?
• Contribution (25 points possible) - To what extent has the deep dive presentation contributed to class knowledge of the course content? At least three salient points made?
• Articulation (25 points possible) - How well did the team articulate the main points being made in the presentation?
• 100 total points = A+; 95 = A; 88 total points = B+; and so forth.

Students submit their grades for each of the four criteria on which the presentation will be evaluated using a Web-based service called Poll Everywhere. There are two ways to access the grading poll – 1) go to the CIS8010 polling page (hyperlink on course Website) or 2) download the Poll Anywhere app for smartphones and tablets (available for iPhone, iPads, and all Android devices). The presenter username is "CIS8010". The grading results for each of the criteria will be displayed in real-time. The team grade will be calculated immediately based on the class evaluation.

In-Class Team Exercises
There will be a team breakout exercise during most classes. Team exercises will involve 1) a brief discussion on some assigned issue/topic where the deliverable is a team decision or strategy relating to the assigned issue/topic; or 2) the application of a specific method/tool where the deliverable is a business model, BPMN process model, job map, etc. The team will be graded on the quality of their deliverable. Each team member will receive the same grade. However, a team member that is absent for the class will not receive credit for the team exercise.

Teams will post their exercise deliverables on the Google Group embedded on the course Website. This serves the following purposes – 1) the instructor evaluates and grades the
Team Project
The concepts presented in this course are best learned by applying them to a real-world scenario. Each team will be responsible for completing the first stage of a discovery, analysis, evaluation, and proposed improvement of a business service. In short, each team will create a current state and a future state of a selected business service and the business case for the proposed change. To be clear, the team does not have to actually implement an improvement to the service. The objective is to develop a proposal for the improvement of a service. Think of the team project as a proposal that would be made to senior management of a company with regards to improving and/or extending a business service. Senior managers who evaluate the proposal will want to know the current state of the service, improvement opportunities, and the business case for the proposed improvements (how the project will benefit customers and the organization, resources required, etc.).

Preferably, at least one of the students on the team will have direct access to a real-world business service (either through their own organization or through professional connections). This must be a real-world business service; not a fictitious service or a service that is described or discussed in a paper/article/move. *On occasion, exceptions can be made to this rule.* The details of the team project are provided in a separate document: [http://goo.gl/uym59g](http://goo.gl/uym59g)

In-Class Quizzes
A Web-based quiz will be given at the beginning of each class starting in week 2. Students will access the quiz with their iPad or notebook computer by clicking the weekly quiz link on the course Website. Make sure to have an iPad or notebook computer that can connect to the Internet. The quiz in a given week is always on the material from the previous week.

- Quizzes are comprised of five multiple-choice questions.
- Students have exactly 15 minutes to complete the quiz.
- Students do not have access to the videos, papers, presentations, etc. that the questions ask about during the quiz. Students receive their grade immediately after the quiz is submitted along with feedback on the correct answers.

*There are no make-up quizzes. However, a student will be given the opportunity to take the quiz should they arrive to class late.*

Final Exam
The final exam is a Web-based test. The final exam will be posted on the course Website after the last class (week 8). Students will have until Midnight on October 13th to complete the online exam. The final exam will contain a mix of:

- Questions pertaining to assigned videos, papers, articles (available on the test)
- True/false and multiple-choice questions
Students will receive their grades immediately after submitting the exam as well as feedback on questions answered (correct and wrong answers).

**COURSE OUTLINE**

<table>
<thead>
<tr>
<th>Date and Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PART 1: From Inside-Out to Outside-In / The Service Imperative</strong></td>
<td></td>
</tr>
<tr>
<td>Week 1</td>
<td>Outside-In Perspective, Business Model Thinking, IT-as-a-Service</td>
</tr>
<tr>
<td>Week 2</td>
<td>Service Foundations &amp; Service-Dominant Logic, Jobs-to-Be-Done Theory, Disruptive Innovation Theory</td>
</tr>
<tr>
<td><strong>PART 2: Modeling the Service Process Engine / Apply IT to Improve the Service Interface</strong></td>
<td></td>
</tr>
<tr>
<td>Week 3</td>
<td>Process Modeling - BPMN Specification Level 1</td>
</tr>
<tr>
<td>Week 4</td>
<td>Process Modeling - BPMN Specification Level 2</td>
</tr>
<tr>
<td><strong>PART 3: Optimize Service Process Engine (Service Effectiveness / Service Productivity)</strong></td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td>Lean Six Sigma Process Improvement System (part A)</td>
</tr>
<tr>
<td>Week 6</td>
<td>Lean Six Sigma Process Improvement System (part B)</td>
</tr>
<tr>
<td><strong>PART 4: Apply Information Technology to Innovate New Services</strong></td>
<td></td>
</tr>
<tr>
<td>Week 7</td>
<td>Customer Job Mapping, Value Proposition &amp; Demand Capture, and Service Design</td>
</tr>
<tr>
<td>Week 8</td>
<td>Team Project Presentations (Feedback - Q&amp;A) and Course Summary</td>
</tr>
</tbody>
</table>

**Descriptions and download links for weekly presentations, articles, papers, and videos can be found on the course Website along with speaker dates and profiles.**