Georgia State University  
CIS 8000 IT Project Management

Course Description
This course examines the defining characteristics of IT projects, especially involving the development of software intensive systems, and introduces the student to a variety of project management techniques that can be applied in an IT project context. This course provides an introduction to the disciplined approaches to IT project management. While IT projects are similar in some ways to other types of projects, they pose unique challenges for the managers and organizations that undertake them. IT project management is particularly challenging because of several factors including: (1) the rapid pace of technological changes occurring in the IT field, (2) the invisible nature of software, (3) the ever-present pressure to add new features and functionality to systems, and (4) the difficulty of managing the organizational changes that accompany most IT implementations. In spite of the advanced technology that surrounds computer-based information systems, IT project management in most organizations is not very disciplined. This course will give students an understanding of the most common processes, tools, techniques, and theories that are necessary to manage IT projects. Managing IT projects that follow both plan-driven traditional development methods as well as agile methods will be covered.

Learning Objectives

Upon completion of the course, students should be able to:

- Articulate similarities and differences between IT projects and other types of projects.
- Understand the role of the software development processes and the characteristics of products resulting from that process.
- Apply general project management competencies to IT projects.
- Apply the techniques and develop the documents related to IT project management.
- Understand how to apply different life-cycle models to design IT projects.
- Understand the nature of projects that plan plan-driven and agile development methodologies.
- Identify IT project risks and develop risk mitigation strategies.
- Identify cases of IT project escalation and de-escalate troubled IT projects.
- Understand how the organizational environment can facilitate IT project success.
- Understand how to facilitate learning in and learning from IT projects.

Catalog Description
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**Tentative Plan**

*This course has ambitious objectives and will be only as beneficial to you as you want to make it for yourself.* Due to the extensive set of topics covered, it is important for the student to keep up with the readings and exercises as the class progresses. Although I will try to maintain the class schedule and objectives, I may need to make adjustments.

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<tr>
<th>Class</th>
<th>Topic</th>
<th>Readings</th>
<th>Deliverables</th>
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| 1     | Introduction to PM | SS: Chapters 1,2,3  
Why IT projects fail  
http://www.computerworld.com/managementtopics/management/project/story/0,10801,99488,00.html  
Companies Don't Learn From Previous IT Snafus  
http://www.computerworld.com/networkingtopics/networking/management/story/0,10801,53014,00.html  
Hottest IT skills | Profile |
| 2     | Project Selection  
Managing large, complex, highly compressed projects  
Project Charter | Play: Project Management Simulation: Scope, Resources, Schedule [Study.net]  
Read: Classic Mistakes  
A case study in classic mistakes  
| 3 | **Software Cost Estimation** | SS: Chapter 3  
L. Kappelman, R. McKeeman, and L. Zhang, Early warning signs of project failure, 
Information Systems Management, vo. 23, No. 4, 2006. [Study.Net]  
R. Nelson, IT Project Management: Infamous failures, classic mistakes and best practices, 
Read: A&D High Tech (A): Managing Projects for Success [Study.net]  
**Individual Assignment 1** | Group Assignment 1 (BAE Project) |
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<tr>
<td>4</td>
<td><strong>Scheduling Network Analysis and Duration Estimation</strong></td>
<td>SS: Chapter 4</td>
<td>Assignment 1 Due</td>
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<td>5</td>
<td><strong>Scheduling and Tradeoff analysis</strong></td>
<td>Test 1</td>
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| 6 | **Portfolio Management Real-Options Managing Risk** | McFarlan, F.W. "Portfolio Approach to Information Systems,"  
SS: Chapter 5  
| **COTS Implementation** | pp. 76-83. [study.net]  
Drummond, H., “Are we any close to the end? Escalation and the case of Taurus,”  
Keil, M., and Tiwana, A. “Beyond Cost: The Drivers of COTS Application Value,”  
Individual Assignment 2 |  |
| --- | --- | --- |
| **7** | An ERP Storey A, B, C and D [study.net]  
HELDMAN: Chapter 5,10  
SS: Chapter 7  
CASE: AtekPC Project Management Office  
Timberjack Parts: Packaged Software Selection Project [study.net] | Group Presentation 2: Prepare presentation on An ERP Story |
### Managing Outsourced Projects

Report by the State Auditor of California concerning the California DMV project


Volume 18, Issue 3, September 2009, Pages 130-146

### Agile Methods


### Agile Project Management

### Agile Simulation

### IT project evaluation

### Prerequisite Policy

This course is part of a series of courses designed to teach systems analysts and designers of tomorrow. As such, it requires a good background in computers. A student must fulfill the following course prerequisites as listed in the Catalog description: CSP: I, II, III, IV, V, VI.

### Course Material

A. Required Textbook
B. Reference Material

- K. S. Rubin, Essential Scrum: A Practical Guide to the Most Popular Agile Process (Addison-Wesley Signature Series (Cohn)) Addison-Wesley Professional; 1 edition (August 5, 2012) (Noted as Rubin in Syllabus copy distributed to you)
- Jag Sodhi and Prince Sodhi, IT Project Management Handbook, Management Concepts © 2001 (Noted as SS in Syllabus)

C. CLASS HANDOUTS / OVERHEADS: Available on Desire2Learn

TOOLS

1. **COCOMO tool** available at [http://diana.nps.edu/~madachy/tools/COCOMOII.php](http://diana.nps.edu/~madachy/tools/COCOMOII.php)
2. **Microsoft Project 2013**. The best way to obtain access to MS Project is through the CIS Department and the Microsoft Developer's Network Academic Alliance (Microsoft DreamSpark). The CIS Department at GSU is now licensed under the MSDN Academic Alliance (MSDNAA) Program which enables every student and faculty member to access all of the software available under the Program. Microsoft's e-academy is responsible for making this software available to everyone for direct download over the Internet. The MSDNAA database of CIS courses registered students was compiled from those students who were registered as CIS Majors and were taking classes this semester ONLY. If you have flagged your GSU Directory Information as "BLOCKED-CONFIDENTIAL", you will have to come to the Department and sign a release. This is done only ONCE per semester. To become an eligible user, you have to be a current CIS course student and the upload will automatically register you sending all the information to your student email account @ GSU. Please refer to DREAMSPARK Master End-User License Agreement. Students and faculty can access this software at [http://msdn.e-academy.com/gsu_cis](http://msdn.e-academy.com/gsu_cis). Here you can download and access the complete suite of Microsoft developer tools,
servers, and platforms. There is no charge to download the software as long as you are an eligible user in the System. There are some selected products that have the option of purchasing the media for a minimum charge.

- DO NOT wait until the day before the assignment is due to make sure you can access the software. It can take several days to get your information into the system. The software packages on DREAMSPARK are not demos; they are full copies.

- Be forewarned that the MS Project software you will need for this course is not installed in the university computer labs.

3. Software Project Simulation

The simulation of software projects will be demonstrated using a system dynamic simulation tool.