

# SYLLABUS

## SYST 530 - Systems Management and Evaluation

Spring 2007

**Professor:** Dr. Peggy Brouse

**Assignment Submission:** WebCT usage is required in the class; instructions are below.

**Work Phone:** (703) 993-1502 (with voice mail)

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**Office:** GMU: Science and Technology II - Room 317

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**Office Hours:** By appointment before class

**Course Description:** Provides the necessary techniques for evaluating the cost and operational effectiveness of system designs and systems management strategies. Performance measurement, work breakdown structures, cost estimating and quality management are discussed. Configuration management, standards, and case studies of systems from different applications areas are discussed.

**Course Hours:** Thursday 4:30 to 7:10 p.m., Innovation Hall 131

**Text:** Project Management: A Systems Approach to Planning, Scheduling and Controlling, 9<sup>th</sup> edition (2006); Harold Kerzner. John Wiley and Sons ISBN 13 978-0-471-74187-9

**Disabilities Statement:** If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 993-2474. All academic accommodations must be arranged through the DRC.

**Grades:** 18% - group case studies  
12% - individual case study write-ups  
10% - initial paper and presentation  
15% - final paper and presentation  
15% - Exam 1  
15% - Exam 2  
15% - final

## How To Access WebCT?

- Go to <http://webct41.gmu.edu>
- Enter WebCT ID and password:  
Students need a WebCT ID and password to login. Their WebCT ID is their Mason mail user name (e.g. the WebCT ID for jdoe@gmu.edu would be jdoe). Logging into WebCT will require the user to enter the same password required to access their Mason email account. Passwords for WebCT can be reset or obtained by clicking on the obtain or reset username/password link.
- If you do not know your Mason mail user name, go to <http://mail.gmu.edu> and click on “Activating My Account” icon, follow the steps.
- All assignments have due dates and submissions after the due date/time will not be possible, since WebCT will automatically block “submit my homework” option.
- From time to time, WebCT works too slowly. Especially from a dial-up internet connection, WebCT access may not be so efficient all the time; students are encouraged to submit their work earlier than the deadline.
- If you experience any problem while accessing/using WebCT, please send an e-mail to Dr. Brouse, [pbrouse@gmu.edu](mailto:pbrouse@gmu.edu)

## **Additional Resources**

Additional Sources: There is a wealth of quality literature available on the subject matter of this course. A few of my favorites are:

INCOSE Insight (informal and short, but educational articles)

INCOSE Systems Engineering Journal

Harvard Business Review (super for the leadership and management portion of the course)

PMI Project Management Journal

PMI PM Network

IEEE Transactions on Systems, Man and Cybernetics

IEEE Transactions on Engineering Management

IEEE Engineering Management Review

Note that there are three main bodies of knowledge that intersect in this course: systems engineering (INCOSE, IEEE), leadership and management (Harvard Business Review), and project management (PMI).

## **Group Case Studies**

The Group Case Studies are the focal point of student group effort within this course. Groups will meet during class time, but individual preparation may be expected outside of the classroom. There will be groups of several people self-formed during the first meeting of the class. Each group will be expected to present the case study in some manner to engage the rest of the class (e.g. role playing, create a game regarding the case study, etc.) You will be expected to elicit participation from the remainder of the class. Each week, a different group will be assigned as the discussion leader for the case study.

## **Individual Case Study Write-Up**

You will be expected to write a 1 – 2 page synopsis of the case study as well as your opinion of the case study before the case study is presented. If your group is presenting the case study you will not be expected to submit an individual write-up for that case study. **The case study homework will be due the day the case study is presented.**

## **Paper**

Each student will be required to write a paper on an area pertinent to this class (e.g. leadership, performance measurement, etc.). There will be two deliverables for this paper. The first deliverable will be a summary of the paper including an annotated outline for the paper. The final deliverable will be due near the end of the semester. The final deliverable must be at least 15 pages, 1 1/2 spacing, with at least three references. The paper will be graded based on the original contribution of the author. It will not be satisfactory to just document leadership styles, for example. The author would be expected to compare and contrast leadership styles and give an opinion on the subject.

## **Exams**

Two exams: The first will be in-class and will cover the first part of the semester. The final will be in-class and will cover the second part of the semester.

## CLASS SCHEDULE

Week 1>	25 January	<ul style="list-style-type: none"> <li>◆ Background; Introductions</li> <li>◆ Form Groups</li> <li>◆ Lecture: Chapter 1 – Overview</li> <li>◆ Group breakout</li> </ul>
Week 2>	1 February	<ul style="list-style-type: none"> <li>◆ Lecture: Chapter 2 - Project Management Growth: Concepts and Definitions</li> <li>◆ Lecture: Chapter 3 – Organizational Structures</li> </ul>
Week 3>	8 February	<ul style="list-style-type: none"> <li>◆ <b>Professor in Dahlgren</b></li> <li>◆ Lecture: Chapter 4 - Organizing And Staffing The Project Office And Team</li> <li>◆ Island Survival Game</li> <li>◆ Groups: For next week: Jones and Shepherd Accountants, page 134 led by Group 1</li> </ul>
Week 4>	15 February	<ul style="list-style-type: none"> <li>◆ <b>Group Presentation: Jones and Shepherd Accountants, page 134 led by Group 1 Fairfax</b></li> <li>◆ Lecture: Chapter 5 - Management Functions</li> <li>◆ Groups: For next week: The Trophy Project, page 259 led by Group 2</li> </ul>
Week 5>	22 February	<ul style="list-style-type: none"> <li>◆ <b>Professor in Dahlgren</b></li> <li>◆ <b>Group Presentation: The Trophy Project, page 259 led by Group 2 Dahlgren</b></li> <li>◆ Lecture: Chapter 6 - Time Management</li> <li>◆ Lecture: Chapter 7 - Conflicts</li> <li>◆ Lecture: Chapter 9 - The Variables For Success</li> <li>◆ Lecture: Chapter 10 - Working with Executives</li> </ul>
Week 6>	1 March	<ul style="list-style-type: none"> <li>◆ <b>Paper: First deliverable due (in WebCT)</b></li> <li>◆ <b>Individual presentation: 5 minute presentation on paper</b></li> <li>◆ Homework: Myers-Briggs personality test at: <a href="http://www.humanmetrics.com/cgi-win/JTypes2.asp">http://www.humanmetrics.com/cgi-win/JTypes2.asp</a> [Please submit 4 letter result in WebCT by 15 March]</li> </ul>
Week 7>	8 March	<ul style="list-style-type: none"> <li>◆ <b>In class Exam Number 1</b></li> </ul>
Week 8>	15 March	<ul style="list-style-type: none"> <li>◆ <b>Spring break: No Class</b></li> <li>◆ Group Presentation for next week: Telestar International (pg.306), led by Group 3</li> </ul>
Week 9>	22 March	<ul style="list-style-type: none"> <li>◆ <b>Group Presentation: Telestar International (pg.306), led by Group 3 Fairfax</b></li> <li>◆ Lecture: Myers-Briggs personality test</li> <li>◆ Groups: For next week: Corwin Corporation, (pg. 387),</li> </ul>

		<b>led by Group 4</b>
Week 10>	29 March	<ul style="list-style-type: none"> <li>◆ <b>Professor in Dahlgren</b></li> <li>◆ <b>Group Presentation: Corwin Corporation, (pg. 387), led by Group 4 Dahlgren</b></li> <li>◆ <b>Lecture: Chapter 11 - Planning</b></li> <li>◆ <b>Groups: For next week: Crosby Manufacturing Corporation (pg. 520) led by Group 5</b></li> </ul>
Week 11>	5 April	<ul style="list-style-type: none"> <li>◆ <b>Group Presentation: Crosby Manufacturing Corporation (pg. 520) led by Group 5 Fairfax</b></li> <li>◆ <b>Lecture: Chapter 12 - Network Scheduling Techniques</b></li> <li>◆ <b>Lecture: Chapter 14 - Pricing and Estimating</b></li> <li>◆ <b>Lecture on Activity Based Costing</b></li> <li>◆ <b>Groups: For next week: Teloxy Engineering (A) (pg. 775) led by Group 6</b></li> </ul>
Week 12>	12 April	◆ <b>In class Exam Number 2</b>
Week 13>	19 April	<ul style="list-style-type: none"> <li>◆ <b>Professor in Dahlgren</b></li> <li>◆ <b>Group Presentation: Teloxy Engineering (A) (pg. 775) led by Group 6 Dahlgren</b></li> <li>◆ <b>Lecture: Chapter 15: Lecture: Chapter 15 – Cost Control</b></li> </ul>
Week 14>	26 April	<ul style="list-style-type: none"> <li>◆ <b>Paper: Final paper due (in WebCT)</b></li> <li>◆ <b>Individual presentation: 5 minute presentation on paper</b></li> </ul>
Week 15>	3 May	<ul style="list-style-type: none"> <li>◆ <b>Professor in Dahlgren</b></li> <li>◆ <b>Lecture: Chapter 16 - Trade-off Analysis In A Project Environment</b></li> <li>◆ <b>Lecture: Chapter 17 – Risk Management</b></li> <li>◆ <b>Lecture: Chapter 18 –Learning Curves</b></li> <li>◆ <b>Lecture: Chapter 19 – Contracts and Procurement</b></li> <li>◆ <b>Lecture: Chapter 21 – Modern Developments In Project Management</b></li> </ul>
Week 16>	10 May	◆ <b>Semester Final Exam</b>