

SYLLABUS
SYST 571 – Systems Engineering Management
Fall 2011

Instructor: Dr. Peggy Brouse

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

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Office Hours: 11 am to 1 pm Mondays and by appointment. Elluminate sessions may be created by request for distance education students.

Course Description: **571 Systems Engineering Management (3:3:0)** *Prerequisite: SYST 471 or SYST 530.* Study of more advanced topics in systems engineering management. Seminar style; students are expected to read a number of selections from current literature as well as make presentations and produce papers on engineering management topics. Students will also execute a project involving developing a Systems Engineering Management Plan, a Risk Management Plan, and a Product Assurance Plan for a complex System. Topics include multiproject management (Task Orders, IDIQ, CPAF, CPFF, T&M, and FFP), quality and product assurance programs, independent reviews, risk management, and the impacts of process change on an organization. The class focuses strongly on the practical aspects of various system engineering management techniques and practices on projects, organizations, and personnel. Students will be required to research systems engineering topics and present their findings in class.

Course Hours: Monday 4:30 pm in Innovation Hall 316

Text: Information Technology Project Management, Sixth Edition. Kathy Schwalbe, Ph.D., 2010, Course Technology.

Grades: 45% - Group Project:

- 15% SEMP
- 10% Risk Management Plan
- 10% Product Assurance Plan
- 10% Final Group Presentation

25% - Research and Class Presentations
15% - Mid-Term Exam
15% - Final

PLEASE NOTE: *This course has both in-class (IC) and on-line/distance education (DE) students. Both IC and DE students will use Blackboard to communicate with the professor (see below). In addition, DE students will need to use Elluminate for distance access. We will be doing some group work which should be an adventure for both IC and DE students.*

Group Project

The Group Project is a focal point of student effort within this course. The majority of effort toward the group projects will be expended outside of class, with class time being reserved for lectures, presentations, and reporting on group activities. ***I will set up an Elluminate room for each group to communicate once we form groups.*** Each group will produce three systems engineering planning documents; a Systems Engineering Management Plan (SEMP), a Product Assurance Plan (PAP), and a Risk Management Plan (RMP). Criteria and guidance for these documents will be given in class. ***You must submit materials for presentation by 2 pm before class so that I may upload to Elluminate. You will only have to do this when your group presents. Only one person will put the presentation in Blackboard before class.***

Examinations:

Examinations are comprehensive over the lectures. Examinations will be closed book and will test you on the application of principles learned. ***DE students must have a proctor for their exams. We will discuss this further.***

Individual Research Paper and Presentations:

Each student will be required to write a paper and give a presentation on a relevant systems management topic. There will be several deliverables for this paper (refer to calendar below). The first deliverable will be a summary of the paper including an annotated outline for the paper. In the middle of the semester, you must give the status of your paper. The final deliverable will be due near the end of the semester. The final deliverable must be at least 8 to 10 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. ***You must submit materials for presentation by 2 pm before class so that I may upload to Elluminate. You will have to do this for the topic presentation, interim status and the final paper presentation.***

Additional Resources – for Paper

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

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.

How to Access Blackboard?

Go to <https://mymasonportal.gmu.edu>

Login to myMason

- ◆ Enter ID and password
Students need a Mason ID and password to login. Their Mason ID is their Mason mail user name (e.g. the Blackboard ID for jdoe@gmu.edu would be jdoe)
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.

Click on the Course tab

Choose this course from the 9.1 Course List

All assignments have due dates and submissions after the due date/time will not be possible, since Blackboard will automatically block “submit my homework” option.

From time to time, Blackboard works too slowly. Especially from a dial-up internet connection, Blackboard 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 Blackboard, please. send an e-mail to Dr. Brouse, pbrouse@gmu.edu

DE students: you will participate in class via Elluminate. The guides for Elluminate may be found at:

<https://gmucollaborate.pbworks.com/>

CLASS SCHEDULE

Week 1>	29 August	<ul style="list-style-type: none"> ◆ Review course requirements ◆ Lecture: Chapter 1 Introduction to Project Management [48] ◆ Group: Form and Organize Groups
Week 2>	5 September	◆ Labor Day – No class
Week 3>	12 September	<ul style="list-style-type: none"> ◆ Lecture: Chapter 2: The Project Management and Information Technology Context [33] ◆ Lecture: Chapter 3 The Project Management Process Groups: A Case Study [32] ◆ Lecture: SE Products [24] ◆ Group: Give overview of SRS to be used for group project ◆ Due: G- SRS - Presentation ◆ G-SRS - Paper
Week 4>	19 September	<ul style="list-style-type: none"> ◆ Lecture: Systems Engineering Management Plan [13] and example (both document and presentation) [20] ◆ Lecture: Chapter 4: Project Integration Management [53] ◆ Individual: Give overview of Research Paper (5 min) ◆ Due: IN - Research Paper Topic - Presentation ◆ IN - Research Paper Topic - Paper
Week 5>	26 September	<ul style="list-style-type: none"> ◆ Lecture: Risk Management Plan [30] and example [[25] ◆ Lecture: Chapter 5: Project Scope Management [35] ◆ Group: Program Management Meeting - Present Interim Status ◆ Due: G- Interim Status 1 - Presentation ◆ G- Interim Status 1 - Paper
Week 6>	3 October	<ul style="list-style-type: none"> ◆ Lecture: Chapter 6: Project Time Management [58] ◆ Lecture: Product Assurance Plan [25] and example [15]
Week 7>	11 October	◆ Exam 1 – please note, we meet Tuesday this week because of Columbus Day
Week 8>	17 October	<ul style="list-style-type: none"> ◆ Lecture: Chapter 7, Project Cost Management [38] ◆ Lecture: Chapter 8: Project Quality Management [64] ◆ Group: Program Management Meeting - Present Interim Status ◆ Due: G- Interim Status 2 - Presentation ◆ G- Interim Status 2 - Paper
Week 9>	24 October	<ul style="list-style-type: none"> ◆ Lecture: Chapter 9 Project Human Resource Management [61] ◆ Groups: Turn in SEMP ◆ Due: G- SEMP - Paper ◆ Individual: Research Paper: Interim Status (5 min) ◆ Due: IN- Research Paper Status - Presentation ◆ IN- Research Paper Status - Paper
Week 10>	31 October	<ul style="list-style-type: none"> ◆ Lecture: Chapter 10: Project Communications Management [45] ◆ Chapter 11 is Risk which was covered in week 4 ◆ Groups: Turn in RMP ◆ Due: G- RMP - Paper
Week 11>	7 November	<ul style="list-style-type: none"> ◆ Lecture: Chapter 12: Project Procurement Management [40] ◆ Groups: Turn in PAP ◆ Due: G- PAP - Paper ◆ Group: Program Management Meeting - Present Interim Status ◆ Due: G- Interim Status 3 - Presentation ◆ G- Interim Status 3 - Paper
Week 12>	14 November	◆ Exam 2
Week 13>	21 November	◆ Final project presentations

		◆ Due: G- Final Presentation
Week 14>	28 November	◆ Students Research Paper Presentations
Week 15>	5 December	◆ Students Research Paper Presentations ◆ Due: IN – Final Research Paper - Presentation ◆ IN – Final Research Paper - Paper