

George Mason University

School of Information Technology and Engineering

Rev. 24Dec10

SYST 371 Systems Engineering Management

Instructor: Dr Jeffrey E. Humphrey (email: humphreyje@aol.com, phone: 703-473-2146, pager 800-209-2390)
Lecture: Mondays, 4:30-7:00PM, Rm Shenandoah Hall Rm 107
Office Hours: Immediately after class or by arrangement

Prerequisite: SYST 210; corequisite: SYST 330

Course objectives: Study of basics of systems engineering management. Includes engineering economics, planning, organizing, staffing, monitoring, and controlling process of designing, developing, and producing system to meet stated need in effective and efficient manner. Discusses management tools, processes, and procedures, including various engineering documentation templates, managerial processes, and dealing with personnel issues. For the first ~ 2/3 of the class the students will individually demonstrate skills with various systems engineering and management tools/concepts. The last ~1/3 of the semester is primarily focused on a group project – preparing an engineering proposal.

Text: Mantel, Meredith, Shafer, and Sutton, “Project Management in Practice, 4th Ed. 2011
You may need some access to a PC (not a Mac) to load and use Crystal Ball software.

Semester Schedule:

Please read chapters before they are discussed in class. Students will lead discussion of one homework problem each during the semester.

- Week 1, 24Jan - Review syllabus, introduce instructor and students, explain goals of the course
Assignment: Take Myers Briggs at <http://www.humanmetrics.com/cgi-win/JTypes1.htm> bring printout (due in class 31Jan)
- Week 2, 31Jan - Text Chapter 1 The World of a PM
Assignments: HW Chapter 1 problems 18, 21, 23 (due next class)
- Week 3, 7Feb - Text Chapter 2 Manager, Organization, and Team
Assignment: HW Chapter 2 – problems 11, 12, 13, 15 (due next class)
- Week 4, 14Feb - Text Chapter 3 Planning the Project (WBS)
Assignment: HW Chapter 3 problems – WBS Exercise (due next class)
- Week 5, 21Feb – QUIZ 1 Chapters 1, 2, & 3, in class, closed book
Assignment: None
- Week 6, 28Feb - Text Chapter 4 Budgeting
Assignment: HW Chapter 4 problems 13, 15 (due next class)
- Week 7, 7Mar - Text Chapter 5 Scheduling
Assignment: HW Chapter 5 problems 25, 26 (AON only), 28 (due next class)
- Week 8, 14Mar, Spring Break, no class
Assignment: Have fun
- Week 9, 21Mar - Text Chapter 6 Allocating Resources
Assignment: HW Chapter 6 problems 21 a-e, CASE St Dismis (due next class)
- Week 10, 28Mar – QUIZ 2 Chapters 4, 5, & 6 in class, closed book
Assignment: None
Start team project proposal (due Final exam), team formation project starts (final teams due 5Apr), review project assignment
- Week 11, 4Apr - Text Chapter 7 Monitoring and Controlling Project
Assignment: HW Chapter 7 problem 26, CASE Palmstar (due next class)
- Week 12, 11Apr - Text Chapter 8 Evaluating and Terminating the Project
Assignment: HW Chapter 8 - CASE Datatech (due next class)
- Week 13, 18Apr – Requirements/Specifications Review (material will be handed out in class)
Assignment: Team status review
- Week 14, 25Apr – Exam 3 Chapters 7, 8, & requirement/specifications, in class, closed book
Assignment: Informal team project summary status only

Week 15, 2May - Project status briefings

Assignment: Present project status

Week 16, May 11-18 (Final Exam Period) – Final Exam: Team Presentations*, team self evals

* Actual presentation sequence will be by random draw

Grading

22.5% Quiz 1 (in-class)

22.5% Quiz 2 (in-class)

22.5% Quiz 3 (in-class)

20% Final Project Proposal (and status, presentations)

2.5% Team self evaluations

10% Class Participation, Attendance, Homework discussion

100%

Overall Grade Scale (in % of total available points):

A+ 99-100

A 92-98.9

A- 90-91.9

B+ 88-89.9

B 82-87.9

B- 80-81.9

C+ 78-79.9

C 72-77.9

C- 70-71.9

D+ 68-69.9

D 62-67.9

D- 60-61.9

F <60

Further details:

One Homework Individual Presentation:

Lead the class solving one homework problem during the semester. You are to have solved the problem before class and be ready to present a cogent discussion (using whiteboard or audio visual equipment) of the solution process.

Engineering Proposal Group Project:

Develop a proposal to buy and install a suite of equipment to a local mall. The equipment will allow businesses in the mall to use wifi securely and allow patrons to use wifi from the mall grounds. The equipment will also allow security cameras to cover day and night the mall grounds.