

George Mason University

School of Information Technology and Engineering

Rev. 18Jan09

SYST 371-002 Systems Engineering Management

Instructor: Dr Jeffrey E. Humphrey (email: humphreyje@aol.com, phone: 703-473-2146, pager 800-209-2390)

Lecture: Tuesdays, 4:30-7:10PM, Rm R A245

Office Hours: Immediately following 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. 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, 3rd Ed. 2007

You will 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, 27Jan - Review syllabus, introduce instructor and students, explain goals of the course

Assignment: Take Myers Briggs at <http://www.humanmetrics.com/cgi-win/JTypes1> bring printout (due in class 3Feb)

Week 2, 3Feb - Text Chapter 1 The World of a PM

Assignments: HW Chapter 1 problems 18, 21, 23 (instructor will lead discussion of these)

Week 3, 10Feb - Text Chapter 2 Manager, Organization, and Team

Assignment: HW Chapter 2 – problems 11, 12, 13, 15

Week 4, 17Feb - Text Chapter 3 Planning the Project (WBS)

Assignment: HW Chapter 3 problems – WBS Exercise

Week 5, 24Feb – QUIZ 1 Chapters 1, 2, & 3, in class, closed book

Assignment: None

Week 6, 3Mar - Text Chapter 4 Budgeting

Assignment: HW Chapter 4 problems 13, 15

Week 7, 10Mar - Text Chapter 5 Scheduling

Assignment: HW Chapter 5 problems 25, 26 (AON only), 28

Week 8, 17Mar, Spring Break, no class

Assignment: Have fun

Week 9, 24Mar - Text Chapter 6 Allocating Resources

Assignment: HW Chapter 6 problems 21 a-e, CASE St Dismis

Week 10, 31Mar – QUIZ 2 Chapters 4, 5, & 6 in class, closed book

Assignment: None

Start team project proposal (due Final exam), team formation starts (final teams due 31Mar), review project assignment

Week 11, 7Apr - Text Chapter 7 Monitoring and Controlling Project

Assignment: HW Chapter 7 problem 26, CASE Palmstar

Week 12, 14Apr - Text Chapter 8 Evaluating and Terminating the Project

Assignment: HW Chapter 8 - CASE Datatech

Week 13, 21Apr – Requirements/Specifications Review (material will be handed out in class)

Assignment: Team status review

Week 14, 28Apr – Exam 3 Chapters 7, 8, & requirement/specifications, in class, closed book

Assignment: Informal team project summary status only

Week 15, 5May - Project status briefings

Assignment: Present project status

Week 16, May 6-13 (Final Exam Period) – Final Exam: Team Presentations I*, team self evals

* Actual presentation sequence will be by random draw

Grading

20% Quiz 1 (in-class)

22.5% Quiz 2 (in-class)

22.5% Quiz 3 (in-class)

20% Final Project Proposal (presentations)

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 presentation multimedia equipment in 10 conference rooms in a office building. The office building that currently houses ~600 employees. This proposal should include the necessary cost, schedule, and performance details necessary to judge the completeness and correctness of the proposal. Further details to be provided later in the semester.

Week 1 N/A

Week 2 N/A

Week 3
1. _____
2. _____
3. _____

Week 4
1. _____
2. _____
3. _____

Week 5
1. _____
2. _____
3. _____

Week 6
1. _____
2. _____
3. _____

Week 7 Spring Break

Week 8
1. _____
2. _____
3. _____

Week 9
1. _____
2. _____
3. _____

Week 10
1. _____
2. _____
3. _____

Week 11
1. _____
2. _____
3. _____

Week 12
1. _____
2. _____
3. _____

Week 13
1. _____
2. _____
3. _____

Week 14
1. _____
2. _____
3. _____