George Mason University
School of Information Technology and Engineering

Rev. 4Jan10

SYST 371 Systems Engineering Management

Instructor: Dr Jeffrey E. Humphrey (email: humphreyje@aol.com, phone: 703-473-2146, pager 800-209-2390)
Lecture: Mondays, 7:20-10:00PM, Rm East Bldg 122
Office Hours: Immediately preceding 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, 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, 25Jan - 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 3Feb)

Week 2, 1Feb - Text Chapter 1 The World of a PM
Assignments: HW Chapter 1 problems 18, 21, 23 (due next class)

Week 3, 8Feb - Text Chapter 2 Manager, Organization, and Team
Assignment: HW Chapter 2 – problems 11, 12, 13, 15 (due next class)

Week 4, 15Feb - Text Chapter 3 Planning the Project (WBS)
Assignment: HW Chapter 3 problems – WBS Exercise (due next class)

Week 5, 22Feb – QUIZ 1 Chapters 1, 2, & 3, in class, closed book
Assignment: None

Week 6, 1Mar - Text Chapter 4 Budgeting
Assignment: HW Chapter 4 problems 13, 15 (due next class)

Week 7, 8Mar, Spring Break, no class
Assignment: Have fun

Week 8, 15Mar - Text Chapter 5 Scheduling
Assignment: HW Chapter 5 problems 25, 26 (AON only), 28 (due next class)

Week 9, 22Mar - Text Chapter 6 Allocating Resources
Assignment: HW Chapter 6 problems 21 a-e, CASE St Dismis (due next class)

Week 10, 29Mar – 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 5Apr), review project assignment

Week 11, 5Apr - Text Chapter 7 Monitoring and Controlling Project
Assignment: HW Chapter 7 problem 26, CASE Palmstar (due next class)

Week 12, 12Apr - Text Chapter 8 Evaluating and Terminating the Project
Assignment: HW Chapter 8 - CASE Datatech (due next class)

Week 13, 19Apr – Requirements/Specifications Review (material will be handed out in class)
Assignment: Team status review

Week 14, 26Apr – Exam 3 Chapters 7, 8, & requirement/specifications, in class, closed book
Assignment: Informal team project summary status only

Week 15, 3May - Project status briefings
Assignment: Present project status
Week 16, May 5-12 (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 presentation multimedia equipment in 100 new homes. A builder of a new development is looking for a subcontractor to purchase parts and install equipment into a new development of homes he is planning. 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. _____