George Mason University
School of Information Technology and Engineering
Department of Systems Engineering and Operations Research

Fall 2014 SYST 530
SYST 530 - Systems Management and Evaluation
7:20 pm – 10:00 pm Thursday Innovation Hall 133– GMU

Syllabus

Professor: *Dr. Philip Barry*
Phone: 703-983-7826
E-mail: *pbarry@gmu.edu*
Office Hours: *By appointment*
Home Page: *Class Web Site: http://mymason.gmu.edu*
 (required username and password)

Course Description: This course 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 an in depth case studies of a system is examined.

Course Text:
Project Management: A Systems Approach to Planning, Scheduling and Controlling, 11th edition (2013); Harold Kerzner. John Wiley and Sons ISBN-978-1-118-0227-6.

Grades 40% - Group Project, 40% - Exams, 15% - Paper, 5% - Class Participation.

Group Projects
The Group Project Studies is the focal point of this course. The group will apply the techniques discussed in the lecture to a systems engineering project that will track through the semester. Also, students will take part in two In Progress Reviews. As part of the IPRs, students will provide written feedback to other groups on the deliverables to date for their group project. The experience from previous years is that it is very important to keep up with the group assignments, as many of the assignments build upon one another.

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* 12 pages long, 1 1/2 spacing, with at least 10 distinct references. Cover pages, tables of contents and references do not contribute to the page count. DO NOT include lecture notes or the textbook as 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 will be given. The midterm will cover the first part of the semester. The final will be will cover the second part of the semester.
Grades are allocated as follows:

Average	Letter Grade
[94,100]	A
[90,93)	A-
[86,89)	B+
[83,85)	B
[80,82)	B-
[70,79)	C
[0, 69)	F

Late Submission of tests, papers or project will NOT be accepted. If you have any extenuating circumstances, talk to me at least 48 hours before the due date.

Schedule

Week 1> 28 Aug
- Background; Introductions
- Course Overview - Syllabus
- Lecture: Kerzner Chapter 1
- In-class Exercise
- Reading: Kerzner Chapter 1 and 2

Week 2>4 Sep
- Form Groups
- Introduction of the Case Study for the Group Project
- Lecture: Kerzner Chapter 2 - Project Management Growth: Concepts and Definitions
- Group Assignment 1
- Reading: Kerzner Chapter 3 and 4

Week 3>11 Sep
- Discussion: Kerzner Chapter 3 and 4
- Lecture: Kerzner Chapter 3 – Organizational Structures
- Lecture: Kerzner Chapter 4 - Organizing And Staffing The Project Office And Team
- Group Assignment 2

- Reading: Kerzner Chapter 11 and 12

Week 4>18 Sep
- Discussion: Kernzer Chapter 11 and 12
- Lecture: Kerzner Chapter 11 - Planning
- Lecture: Kerzner Chapter 12 - Network Scheduling Techniques
- Group Assignment 3
- Reading: Kerzner Chapter 5

Week 5>25 Sep
- Discussion: Kerzner Chapter 5
- Lecture: Kerzner Chapter 5 - Management Functions
- **Paper: First deliverable due**
  - o Annotated Outline Due
  - o Individual presentation: 5 minute presentation on paper
- Group Assignment 4

Week 6>2 Oct
- Lecture: Evidence Based Data Driven Project Orientation
- Exam Number 1 (Take Home)
- Group Assignment 5
- Reading: Kerzner Chapter 17

Week 7>9 Oct
- Exam 1 Due
- Discussion Kerzner Chapter 17
- Lecture: Chapter 17 - Risk Management
- *Homework*: Myers-Briggs personality test at:
  - o http://www.humanmetrics.com/cgi-win/JTypes2.asp
  - o [Please submit 4 letter result in through mymason e-mail by 15 Oct]
- Group Assignment 6

Week 8>16 Oct
- Exam Review
- Lecture: Myers-Briggs
- In-Progress Review 1
- Group Assignment 7
- Reading: Kerzner Chapter 14

Week 8>23 Oct
- Discussion: Kerzner Chapter 14
- Lecture: Kerzner Chapter 14 - Pricing and Estimating Lecture
- Group Assignment 8

- Reading: Kerzner Chapter 15

Week 9>30 Oct
- Discussion: Kerzner Chapter 15
- Lecture: Kerzner Chapter 15 – Cost Control
- Group Assignment 9

Week 10>6 Nov
- Individual presentations: 10 minute discussion on term paper
- Group Assignment 10
- Reading: Kerzner Chapter 6 and 7 – Time Management and Conflicts

Week 11>13 Nov
- Discussion: Kerzner Chapter 6 and 7
- Lecture: Kerzner Chapter 6 - Time Management Lecture
- Lecture: Kerzner Chapter 7 – Conflicts
- Exam Number 2 (Take Home)
- Group Assignment 11

Week 12>20 Nov
- Exam 2 Due
- In-Progress Review 2
- Group Assignment 12

Week 13>27 Nov
- Thanksgiving – No Class
- Reading: Kerzner Chapter 20 and 24 – Quality Management and Managing Crisis Projects

Week 14> 4 Dec
- Exam 2 Review
- Discussion: Quality Management and Managing Crisis Projects
- Lecture: Kerzner Chapter 20 – Quality Management
- Lecture: Kerzner Chapter 24 – Managing Crisis Projects
- Group Assignment 13
- Paper: Final paper due (in Blackboard)

Week 15>11 Dec
- Group Presentations
- Peer Review Stoplights Due
- Final Project Binder due