

**Peter F. Drucker and Masatoshi Ito Graduate School of Management**

CLAREMONT GRADUATE UNIVERSITY

**MGT 408: THE ART AND SCIENCE OF PROJECT MANAGEMENT**

Professor Karen L. Higgins

Fall 1 2009

Wednesdays 7 to 10 p.m.

September 2 through October 14

Growing complexity, dynamics and uncertainty distinguish today's business environment from the one we witnessed even a short decade ago. Funding and political support wax and wane; computer technology, materials, and product changes are rapid and profound. The competitive landscape shifts daily creating evolving goals and uncertainty that must be interpreted and managed. The global economy with its recent downturns not only affects financing and longevity of businesses, but also expands the need for teams of people to collaborate efficiently, make decisions quickly and take action, often across organizational and national boundaries. Organizations must rely on each other for products, expertise or facilities. Specialization of knowledge and decreasing product life cycles require flexibility as well as organized and structured ways to achieve goals.

To accommodate complexity and accomplish their strategies and goals, businesses organize work into projects and assign responsibility and accountability for products, services and systems that are more contained and separate from routine or ongoing work. Projects range from efforts with thousands of people and billion dollar budgets, to small tasks with a few people, simple products and small budgets. Project management is a fundamental part of running a complex business, whether that business involves designing and developing new products, producing current products, or providing services.

Once requirements are set and resources are allocated, the project begins. During implementation, the project team applies resources toward desired goals, products or services—all aimed at providing value for stakeholders. The project team may include members from different organizations. A project is accomplished within a larger organizational context and exists for a given time period, until it is complete. Successful implementation of a project requires more than traditional project management, whose roots lay in implementing massive government and construction projects over half a century ago. Leading a project today is much like running a small company within a company, with the added challenge of more immediate and exacting time-lines.

Today's project leaders must combine the tools and technology of traditional project management with extensive leadership proficiency that includes communication and people skills as well as a deep understanding of the consequences of their actions. They must act quickly and flexibly while integrating all facets of project leadership; they must juggle disparate requirements among multiple stakeholders, maintain excellent relationships with customers, meet project cost, schedule and performance goals while motivating teams of people. They must reach beyond these conventional skills to appreciate cause and effects over time so that they can

make informed decisions. This insight comes from using a systems perspective to view organizations and projects as collections of interrelated and interactive parts. Systems perspective incorporates external influences as well as interactions among elements such as trust, communication, formal structures, reward systems, culture and relationships. Interactions may be simple, e.g. formal rewards that influence behavior, or they may be complex combinations that change products and performance over time.

The **purpose of this course** is to develop such a systems perspective that will enhance the student's ability to manage projects in today's multifaceted world. Students will gain a grounded understanding of skills, characteristics and actions needed to succeed. The course treats project management as both art and science. As a science, project management considers formal systems such as metrics, rewards and traditional tools. As an art it emphasizes culture and the informal side of the organization. By integrating art and science – using a systems perspective – a project manager proactively influences success. **Aspiring and current leaders** regardless of level or responsibility will find the course useful.

### Course Objectives

By the end of this course the student should be able to:

- **Understand traditional approaches** to project management that emphasize formal processes. The student will become familiar with project planning and implementation; setting requirements; cost, schedule and performance metrics; and tools such as work breakdown structures, cost estimation, PERT/Gantt charts, risk assessments and earned value management. The course presents these items as tools to be used in the course of managing a project, rather than as a primary focus. The course neither expects nor teaches project management computer applications, but students may independently use software such as MS Project for assignments if desired.
- **Analyze and diagnose real life project management problems.** The course is highly participative with examples from complex cases. A team project will exercise collaboration and communication skills and will provide a hands-on example of planning and proposing a project. Using case study methodology and a Management Coordination System (MCS) Model, the student will understand how individual elements of a project interact. He or she will be able to identify influences that can change outcomes.
- **Develop a systems perspective** to understand interdependencies and the long and short term effects of leaders' actions. The student will be able to put formal processes and tools in the context of a greater whole in which the human, less tangible part of an organization (e.g. culture, relationships) is crucial. Using the MCS model, the student will learn cause and effect relationships of formal and informal parts of an organization, on motivation and goal alignment, on internal characteristics such as trust and commitment and ultimately on performance. The student will recognize interactions with the external environment, including with customers and other stakeholders.
- **Use a systems perspective** to shape a project environment. By using the model in analyzing real-life situations, the student will be able to translate this systems perspective into an actionable knowledge of skills and actions that can influence long term success.

- **Improve interpersonal communication skills.** All project managers require good communication skills. To sharpen oral communication skills, students will give an oral presentation of their team project plan. In addition, they will have the opportunity to improve interpersonal communication skills through exercises conducted in a learning environment.

### Approach

The course uses a variety of media, case studies, readings, real-life examples and a tested model to illustrate how the interplay of individual elements ultimately affects outcomes. We will combine academic knowledge with practical experience from various exercises and from the team project to build project management expertise. The student will begin to internalize the lessons and be able to apply them on-the-job.

During the sessions, I will highlight important issues and relationships, but it is imperative that each student do the required reading prior to each session and come prepared to discuss each topic. Be prepared to explore reasons behind success or failure in the case studies. Class participation will benefit everyone.

### Grading

Quality of your work on in-class exercises and the quality and quantity of contributions in class comprise 35% of the final grade. Quality will be evaluated from the insightfulness, relevance and clarity of: 1) **comments** during class discussion that are original contributions or that build further understanding from others' comments and 2) **completeness, thoroughness and level of participation** for in-class exercises. Participation in all seven sessions is a significant part of the learning process for the course and final grades depend upon this participation.

The team project including proposal and oral presentation will comprise 15% of the final grade. Grades will depend on the quality and thoroughness of your proposal and your contribution to the oral presentation.

The paper on the assigned case study will count for 10% of your grade. Grades on this paper will depend on 1) completeness, relevance and thoughtfulness of answers, 2) logical organization of analysis and 3) integration of concepts discussed in class.

The final project makes up 40% of your grade. Grades will depend on: 1) an understanding of the systems perspective and actions a project manager can use to influence project success, 2) completeness in addressing the points in the final project description, and 3) demonstration of clear and organized thought process.

The specific grading plan follows:

Class Contribution [including in-class exercises]	35%
Team Project [Proposal and Presentation]	15%
Paper on Case Study [Session 5]	10%
Final Project	40%

Students who miss more than one class (three hours) in this course are subject to instructor withdrawal at the instructor's discretion.

I will be happy to discuss the course, your progress, or any other issues on an individual basis. Appointments can be made directly with me by e-mail (Karen.Higgins@cgu.edu) or by telephone (760-382-3287).

**Books and Material:**

1. Frame, J. Davidson, *The New Project Management: Tools for an Age of Rapid Change, Complexity and Other Business Realities*, 2<sup>nd</sup> edition, SF: Jossey Bass, 2002
2. Senge, Peter M, *The Fifth Discipline*, NY: Currency, revised edition, 2006
3. Verzuh, Eric, *The Fast Forward MBA in Project Management*, 3<sup>rd</sup> ed., NJ: Wiley & Sons, 2008
4. Coursepack [purchase at Huntley Bookstore]

**Reference:** For information and further study if desired: *Not Required Reading*

1. Project Management Institute, *A Guide to the Project Management Body of Knowledge*, 4<sup>th</sup> Edition, Newtown Square, PA: Project Management Institute, 2008

*NOTE: Acronyms and Definitions from this source are provided in the coursepack*

## TEAM PROJECT Sessions 1 through 3

We will split into teams of 4 people maximum. Teams will work together for the first 3 sessions to develop a **project proposal** in response to the customer's "Request for Proposal" [RFP] included in this syllabus. This project will familiarize you with traditional project management planning tools and techniques and exercise your communication skills.

- **Proposal Development:** Your proposal should include the following elements:
  - *Brief* description of selected design [1 to 2 slides]
  - Description of how your proposal meets customer requirements [1 slide only]
  - Final WBS [all 3 levels]; you may use a "tree" or a "list" [see Verzuh Chapter 6]
  - Action Plan [see Verzuh Chapter 7]
  - Final Gantt [schedule] and Resource Requirements for each WBS task [see Verzuh Chapter 7]
  - PERT Chart [with critical path] [see Mantel Section 5.1]
  - Qualitative Risk Analysis noting up to 3 risks with a single sentence describing how you would manage each risk [see Frame, "Qualitative Risk Analysis" p. 85]
  - Final cost estimates; **show costs for 3<sup>rd</sup>, 2<sup>nd</sup> and top levels**. Incorporate contingency plan costs and profit in your top level cost estimate
  - Assumptions for the design, implementation and cost estimate, including use of in-house personnel or contractors, type of contract chosen, and special requirements
  
- **Session 1: Customer Discussion and Coordination**

Each team will have an opportunity to discuss questions about the project and its requirements with "the customer" [instructor] prior to the final bid. This discussion will use a "contractor forum" format in which all teams hear the same information at the same time. All teams together will negotiate with the customer during this session to determine what type of contract will be used [e.g. firm fixed price, cost plus incentive fee etc], so make certain you understand benefits and pitfalls of the various types.

Each student should come to Session 1 with his/her own ideas on the following information:

1. Tasks required to accomplish the project, with estimated duration of each task
2. The number of people needed to complete the task on time and when they will be needed
3. Type of contract you recommend; the customer's starting position is "firm fixed price"
4. Questions you wish to ask the customer

You will have a short time during Session 1 to select and coordinate your team.

- **Session 2: Presentation of WBS, Gantt, PERT and Personnel Requirements**

Each team will have up a brief time to share its Work Breakdown Structure, Gantt and PERT charts with the rest of the class to get feedback. Requirements for each are:

  - a) **WBS:** Use a maximum of 3 levels and a graphic block diagram [tree diagram] format
    - Level 1 should be called "Produce Birdhouses"
    - Level 2 may have a maximum of 4 tasks
    - Level 3 may have a maximum of 4 tasks for each Level 2

b) **Schedule:** Base the schedule on Level 3 WBS tasks and use both a bar chart [Gantt] and a PERT chart format. On the Gantt, show the sequence and duration of tasks, any overlap and start/stop dates on a graph depicting “weeks after go-ahead”. On the PERT chart, show interdependencies and critical path.

- **Session 3: Proposal Presentation**

Each team will give an oral presentation [time limit TBD] of its “best and final” proposal to the customer [the instructor and the rest of the class]. Teams may present proposals electronically as a PowerPoint document [we can load it in class from a memory stick] or may hand out hard copies to the class. All members on your group must have a speaking part. Your presentation should address each element listed as part of the proposal development. Please hand in a hard copy at the end of your presentation and include all team members’ names.

- **Grading Criteria and Assessment**

The best proposals will *clearly* and *succinctly* describe the required items, so reduce the “filler information” and go only into enough detail to be understood. After all the presentations are complete, the customer [instructor and rest of the class] will evaluate the proposals and select the “winning proposal”.

Weighted criteria for evaluating the proposals are:

- 1) cost (30%)
- 2) desirability of your design (20%)
- 3) believability of your assumptions [e.g. productivity rates] (20%)
- 4) ability to meet the scheduled delivery date (30%)

- **Possible Tools to Use for Proposal** [These are suggested computer automated tools but are not required; *students may also hand generate the proposal elements*]

POWERPOINT or other

Presentation slides

WBS “Tree-diagram format”

MS PROJECT or Other

Action Plan

WBS “list format”

Gantt Chart with resource spreadsheet [show expected durations, critical path, milestone & resource requirements for each task]

PERT/CPM

EXCEL or Other

Cost Estimation Spreadsheet

Qualitative Risk Analysis

**TEAM PROJECT  
REQUEST FOR PROPOSAL  
The “Tweeter Project”**

An established customer has sent out a Request for Proposal to design and build 800 birdhouses. Your company has built other products for this customer and you value his continued business, so this will be a high priority project and you want to please him. You will have an opportunity to interact with the customer before your final bid [Session 1].

This customer sells various small garden and hobby-related items to clients of all ages. Your customer thinks birdhouses with more than one entry hole would be attractive to his clients. He wants 400 of them to be colorful and appeal to young families with children and 400 of them to appeal to senior citizens who enjoy bird watching. The birdhouses must last outdoors in a warm and rainy environment for at least 5 years. The customer is interested in novel and innovative designs that will appeal to his clientele.

All 800 birdhouses must be *in the customer’s hands* in 50 calendar days from the award of the contract so that he has them available for a previously scheduled product show, thus schedule is a critical factor. The customer’s facility is 200 miles from your facility. For each day you deliver late, you will pay a penalty of \$500.

**Assumptions**

Use the following assumptions and list other assumptions you have made. Documenting your assumptions will be crucial to ensure a complete understanding of the project.

- Your company has the following personnel available
  - 2 craftspersons and 2 designers [*shared* with other high priority projects]
  - 1 administrative and one other support person
  - 2 project managers who manage several projects
- Document your assumptions about productive hours per week, productive days in each week and productivity rates, i.e. how long does each personnel type take to complete a task. Also document your assumptions about material lead times and potential risk areas. [Remember, the customer must believe you!]
- Burdened labor rates [wages, benefits and overhead] in your company are:
  - Craftspersons: \$40 / hour, time and a half for >40 hrs/week; double time on weekends
  - Designers: \$60 / hour, time and a half for >40 hrs/week; double time on weekends
  - Admin & Support: \$35 /hour, time and a half for >40 hrs/week; double time on weekends
  - Project Managers: \$100 / hour, salaried [no overtime]If you need to outsource for additional support, labor costs an additional 10%
- You have no inventory and will need to purchase all materials. Make your own assumptions about cost of material used [order of magnitude is sufficient].
- You do not need to consider cost of buildings, work-spaces or offices. You have enough equipment for this project and do not need to purchase any.

## SESSION 5 WRITTEN HOMEWORK ASSIGNMENTS

### **PAPER: Case Study—The Custom Woodworking Company Case Study**

#### **Homework for Session 5**

Analyze the case study: “The Custom Woodworking Company – Woody 2000 Project”. Write a 3 page [max] typewritten and double spaced paper on the case. Please be certain *to answer all* of the following questions. You may use the Project Appraisal Questionnaire at the end of the case to aid your thinking, but you need not answer the questions in your paper. Your paper should be well organized and demonstrate a clear thought process. It should include project management concepts we have studied and can include other thoughts and references. We will discuss your conclusions in class. You can improve your paper by giving examples to illustrate your points.

1. Name three areas where the project failed and describe how they contributed to failure.
2. When should Ian Leadbetter first have known that the project was in trouble? What could he have done at that time to reduce risk of failure?
3. Name three success indicators that should have been measured during execution.
4. How did expectations differ from reality?
5. Characterize communication in the company.
6. Describe the culture of the company and how it might have affected the project.
7. Assume you are Win Easley, the project management consultant. What should President Emelia Carpenter do differently on the next project?

### **PREPARATION FOR IN-CLASS GROUP EXERCISE: Case Study: AV-8B**

#### **Homework for Session 5**

To prepare for Session 5, analyze Parts A and B of the AV-8B Harrier Case using a systems perspective. Using the Management Coordination System (MCS) Model to structure your thinking, answer the questions below. We will break into small groups to discuss your analysis. Each group will select the best answers for the questions and share them with the class.

1. Select **three (3)** of the following MCS elements. For each element selected, describe **one (1)** major action that leadership took to increase success.
  - a. Formal Systems
  - b. Informal Systems [culture, relationships...]
  - c. Communication
  - d. External Environment [including customers and other external stakeholders]
  - e. Internal Environment [Pick one: Commitment, Trust, Empowerment or Learning]
  - f. Goal Alignment [internal]
2. For each of the three actions selected, answer the following
  - a. Did this action affect individual motivation? If so how?
  - b. With which other MCS element(s) did it interact?
  - c. Were results of the action immediate or did they lag?

## FINAL PROJECT

Select option A or B or C and write a paper to discuss the topic described in the option. The paper should be **10 pages (max)** typewritten and double spaced. It should be well organized and concise and should reflect your ability to apply project management techniques from a systems perspective. **For all options**, use the guidance in the next two paragraphs to demonstrate your insight into project management – it will *make the difference* in your grade!

- (1) Incorporate a systems perspective in your paper. Select a framework to organize your thoughts: a) the Management Coordination System Model or b) systems thinking principles from O'Connor & McDermott, Chapter 2 or Senge's *The Fifth Discipline* [e.g. chapters 5-8 not assigned] or c) your own framework that will show interrelationships, cause and effects.

Using this systems perspective, describe how leaders' actions influenced elements inside the project. Include elements such as formal and informal systems; motivation; communication; goal alignment; commitment, trust, empowerment and learning; and any others you may identify. Describe effects of the external environment on the project, as well as influences of leaders' actions on the external environment. Include customers and other stakeholders in your discussion of external environment.

- (2) Describe interactions and cause-effect relationships among the elements listed above. Note unintended consequences and how actions/ interactions relate to performance success or failure. Discuss short and long term effects and lags between action and effect. Clarify and illustrate your points **with examples**. Use course material and/or other external sources to substantiate the discussion.

**Option A:** Discuss the philosophy and building blocks for project management in today's environment. Describe factors you believe are most important and delineate specific examples of what a project manager can do to create an environment for success. Describe potential pitfalls of a manager's actions.

**Option B:** Analyze leadership and organizational actions in the case "The Boeing Company" Parts A & B, [Higgins, rev 24 Oct 2008]. Write your paper from the perspective of a project manager in the organization and describe how the actions and environment in Boeing might affect your leadership style and your project. Ignore questions at the end of the case. If you choose this option, please let me know ahead of time and I will get a copy for you.

**Option C:** Write and analyze your own case study based on your experience or knowledge. Provide background and actual outcomes for this case, and identify the pitfalls and areas of success. Write "lessons learned" as though you are the project manager. Describe what you would have done to increase success.

Final projects are **due no later than 21 October 2009**. They may be sent via email to [karen.higgins@cgu.edu](mailto:karen.higgins@cgu.edu). Earlier submittals are welcome.

## CLASS ASSIGNMENTS

### Session 1 INTRODUCTION TO PROJECT MANAGEMENT

#### Planning, Customers and Requirements

Frame, J. Davidson, *The New Project Management*, 2<sup>nd</sup> edition, CA: Jossey-Bass, 2002

**Chapter 5**, “Satisfying Customers: Knowing Who They Are, What They Want, and When They Are Right or Wrong”, to “Customers’ Responsibilities...”, pp. 93-103

**Chapter 6**, “Defining Requirements That Bridge the Customer-Developer Gap”, to “Globus World ...”, pp. 118-124 and “The Communication Challenge...”, pp. 130-138.

**Chapter 12**, “Outsourcing in Project Management” to “Invitation for Bid”, pp.258-268

Kerzner, Harold, *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, 10<sup>th</sup> Edition, NJ: Wiley, 2009

**Chapter 2**, “Project Management Growth...”, Sections 2.0-2.4, pp. 37-49

Kerzner, Harold, *Project Management Case Studies*”, 3<sup>rd</sup> ed., NJ: Wiley, 2009

**Case Study**, “Telestar International”, pp. 502-503

Project Management Institute, *A Guide to the Project Management Body of Knowledge*, 4<sup>th</sup> Edition, PA: Project Management Institute, 2008

**Section 2.4.2**, “Organizational Structure”, pp. 28-32

**Glossary**, [*REFERENCE ONLY*], “Common Acronyms”, pp. 416-417

Verzuh, Eric, *The Fast Forward MBA in Project Management*, 3<sup>rd</sup> ed., NJ: Wiley & Sons, 2008

**Chapter 2**, “Foundation Principles of Project Management”, pp. 13-31

**Chapter 5**, “Write a Statement of Work” to “Creating a Communication Plan”, pp. 60 -70

**Chapter 6**, “Work Breakdown Structure” to “Planning for Quality”, pp. 125-138

#### Homework prior to Session 1:

- Prepare your individual ideas and questions for developing the proposal [see Session 1 description earlier in the syllabus]. Be ready to discuss in class with teammates.
- If you choose to get and use MS Project, familiarize yourself with it.

#### In Class Exercises:

- Select team mates—up to 4 students per team. Break into your teams, compare homework assignments and begin your coordination process. During this exercise, your team should consolidate questions you wish to ask the customer.
- Discuss requirements and negotiate with customer for contract type that will be used. All teams will participate and will use the same contract type agreed to during the discussion.

#### Written Homework assignment for Session 2:

- Working with your group, prepare the WBS, Gantt and PERT charts for the project [see earlier in this syllabus]. Prepare to share your results with the class during Session 2.

## **Session 2 TRADITIONAL PROJECT MANAGEMENT**

### **Scheduling, Cost Estimation and Earned Value Management**

Frame, J. Davidson, *The New Project Management*, 2<sup>nd</sup> edition, CA: Jossey-Bass, 2002

**Chapter 10**, “Estimating Realistic Costs, Schedules, and Specifications to Ensure Project Success”, to “Strategies for Dealing with Poor Estimates”, pp. 207-223

**Chapter 13**, “Integrating Cost and Schedule Control to Measure Work Performance”, to “Trend Analysis...”, pp. 274-287

Mantel et al, *Project Management in Practice*, 3<sup>rd</sup> Edition, NY: Wiley, 2008

**Chapter 5**, “Scheduling the Project”,

Section 5.1 “PERT and CPM Networks” p. 146-154

Section 5.4 “The Gantt Chart”, pp. 173-177

Verzuh, Eric, *The Fast Forward MBA in Project Management*, 3<sup>rd</sup> ed., NJ: Wiley & Sons, 2008

**Chapter 7**, “Realistic Scheduling”, pp. 145-179

**Chapter 8**, “The Art & Science of Accurate Estimating”, pp. 182-206 [skip Fig 8.5 & 8.6]

**Case Study**, “SAFECO Field; Fast-Tracking a Baseball Stadium”, pp. 242-245

#### **In-Class Exercises:**

- Tweeter Project Proposal: Each team will have a brief time to share its Work Breakdown Structure, Gantt and PERT charts for the Tweeter Project Proposal. [see earlier description]
- Earned Value Management Questionnaire [handed out in class]

#### **Written Homework assignment for Session 3:**

- Prepare for the oral presentation of your team’s best and final proposal for the “Tweeter Project”. [see earlier description for specifics and grading criteria; time allotted for the presentation TBD]

### Session 3 TRADITIONAL PROJECT MANAGEMENT Control, Risk Assessment, and Change

Frame, J. Davidson, *The New Project Management*, 2<sup>nd</sup> edition, CA: Jossey-Bass, 2002

**Chapter 3**, “*Engaging Change: Knowing When to Embrace, Accept, or Challenge*,” pp. 44-71.

**Chapter 4**, “*Managing Risk: Identifying, Analyzing and Planning Responses*,” to “*Modeling*”, pp. 72-88.

**Chapter 15**, “*Understanding and Using Performance Metrics: Measuring the Right Stuff*”, to “*Generating Measures...*”, pp. 306-317 and “*The Shadow Side of Measures*”, pp. 322-326

Kerzner, Harold, *Project Management Case Studies*, 3<sup>rd</sup> Ed., NJ: Wiley & Sons, 2009

**Case**: “*The Trophy Project*”, pp. 331-333

Mantel et al, *Project Management in Practice*, 3<sup>rd</sup> Edition, NY: Wiley, 2008

**Chapter 7**, Section 7.6, “*Scope Creep and Change Control*”, pp. 263-264

#### **In Class Exercise:**

- Proposal Presentation: Each team will give an oral presentation of its “best and final” proposal to the customer [the rest of the class]. All team members must have a speaking part. Presentation of your proposal should address each element listed as part of the proposal development. See earlier discussion for presentation requirements and assessment criteria.

#### **Written Homework Assignment for Session 4:**

- Complete the “Motivational Questionnaire” in the session 4 section of course pack and consider the following questions:
  - What Motivates You?
  - How Do You Motivate?

## Session 4 SYSTEMS PERSPECTIVE IN LEADING A PROJECT

### Systems Thinking, Motivation, Performance, Goal Alignment, Management Systems

Higgins, Karen L., *Management Coordination System Model*, April 2009, to “Internal Environment”, pp. 1-16.

Kerzner, Harold, *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, 10<sup>th</sup> Edition, NJ: Wiley & Sons, 2009  
**Chapter 5**, “Motivational Questionnaire”, pp. 277-283

Kerzner, Harold, *Project Management Case Studies*, 3<sup>rd</sup> Edition, NJ: Wiley, 2009  
**Case**, “The Reluctant Workers”, pp. 20-21

Lancaster, Lynne and Stillman, David, *When Generations Collide*, NY: Collins Business, 2002  
**Chapter 2**, excerpts, pp. 12-32

Lewis, James P., *Mastering Project Management*, NY: McGraw-Hill, 1998  
**Chapter 10**, “How to Apply Systems Thinking in Managing Projects”, pp. 101-108

Nohria, Nitin, Groysberg, Boris, Lee, Linda-Eling, “Employee Motivation: A Powerful New Model”, *Harvard Business Review*, Jul-Aug 2008, pp. 78-84

O’Connor, Joseph & McDermott, Ian, *The Art of Systems Thinking: Essential Skills for Creativity and Problem Solving*, SF: HarperCollins, 1997.  
**Chapter 1**, “What is a system?” pp. 2-5  
**Chapter 2**, “Thinking in Circles”, pp. 26-60

Senge, Peter, *The Fifth Discipline*, NY: Currency, revised edition, 2006  
**Chapter 4**, “The Laws of the Fifth Discipline”, pp. 57-67  
**Chapter 10**, “Shared Vision”, partial, pp. 191-209

#### In-Class Exercise:

- Discuss your observations on your completed *Motivational Questionnaire* [Kerzner]
- Senge’s Eleven Laws

#### Written Homework Assignment for Session 5:

- Analyze *The Custom Woodworking Company – Woody 2000 Project* Case study. Write 3 page paper answering questions described earlier in this syllabus. Be prepared to discuss your analysis in Session 5.
- Analyze Parts A and B of the AV-8B Harrier Case using a systems perspective. [See earlier description in this syllabus for specific questions]

**Session 5 SYSTEMS PERSPECTIVE IN LEADING A PROJECT**  
**Internal and External Environments**

Higgins, Karen L., *Management Coordination System Model*, April 2009, “Internal Environment,” to “Management Control System Interactions”, pp. 17-26

Higgins, Karen (rev March 25, 2009), *AV-8B Harrier Aircraft*

**Part A:** Early Challenges, Case KH-PM-06-002A

**Part B:** Later Challenges, Case KH-PM-06-002B

Hurley, Robert F., *Harvard Business Review*, “The Decision to Trust”, Sept 2006

Wideman, Max (accessed 19 April 2007), “*The Custom Woodworking Company – Woody 2000 Project*”

Sutton, Robert, “Why Innovation Happens When Happy People Fight”, 2002, in W. Glenn Rowe, *Cases in Leadership*, LA: Sage Publications, 2007, pp. 292-296.

**In-Class Exercises:**

- Drivers of Trust
- Discuss the Woody 2000 Project Case Study [see earlier description]
- Break into small groups to discuss your analysis for the AV-8B. Each group will select the best answers for the above questions and share them with the class. [see earlier description]

**Paper Due:** *The Custom Woodworking Company – Woody 2000 Project* case study analysis

**In Class Video:**

- “Software Development for the AV-8B Harrier: Shaping a Project Environment for Success”

## **Session 6 WHEN SYSTEMS PERSPECTIVE IS APPLIED**

### **Communication and Systems Applications**

Edmondson, Amy et al (2002 & 2003) “Group Process in the Challenger Launch Decision (A), (B) and (D)”, HBS Case Studies 9-603-068; 9-603-070; 9-603-073.

Goleman, Daniel, *Emotional Intelligence, 10th Anniversary Edition*, NY: Bantam, 2006  
**Chapter 2**, “Anatomy of an Emotional Hijacking”, excerpt, pp. 13-21  
**Chapter 3**, “Can Emotions Be Intelligent” and “IQ and Emotional Intelligence: Pure Types”, pp. 42-45

Hackman, Michael Z & Johnson, Craig E., *Leadership: A Communication Perspective*, IL: Waveland Press, Inc., 2009  
**Chapter 2** “Authoritarian, Democratic, Laissez-Faire Leadership”, pp. 42-43  
**Case**, “SuperNova Microcomputer”, p.50

Higgins, Karen L., *Management Coordination System Model*, April 2009, “Management Control System Interactions”, pp. 27-33

Higgins, Karen (rev 24 Mar 2009), *The National Aeronautics and Space Administration*  
**Part A**: Case KH-PM-06-001A  
**Part B**: The Rest of the Story, Case KH-PM-06-001B  
**Part C**: Implementing Change, Case KH-PM-06-001C

#### **In-Class Group Exercises:**

- NASA Functional Group discussion and Project Risk Assessment
- NASA Culture and Leadership Actions
- Interpersonal Communication Listening Skills

#### **In Class Video**

- NASA Space Shuttle *Challenger* Video Parts 1 and 2

#### **Written Homework Assignment for Session 7:**

- Leadership Effectiveness Problems [handout]
- Jot down your thoughts on the handout “What Would You Do?”

**Session 7 SUCCESSFUL PROJECT LEADERSHIP & ETHICS**  
**Effective Leadership**

Higgins, Karen L., *Management Coordination System Model*, April 2009, “Conclusions”, p. 34

Kerzner, Harold, *Project Management Case Studies*, 3<sup>rd</sup> Edition, NJ: Wiley, 2009  
**Case**, “The Blue Spider Project”, pp 301-316

Kerzner, Harold, *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, 10<sup>th</sup> Edition, NY: Wiley, 2009  
**Chapter 5**, Section 5.16, “Project Management Bottlenecks,” and Section 5.17, “Communication Trap”, pp 243-245  
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**In-Class Group Exercises:**

- Leadership Effectiveness Problems
- Thoughts on the handout “What Would You Do?”
- Project Manager Keys to Success