A Cooperative Project

By Academics for Academics

The purpose of the project is to develop curricula guidelines for project management education.

The intention is to develop students’ project management knowledge and skills, including teamwork, communication, leadership, critical thinking, and problem solving.

We believe that when it comes to project management education, educators should possess applied experience, a standardized set of research methods, and a uniform language of discourse.
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# Volume III: Project Teams, Leadership and Communication PM-2

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Preface

This series of documents contains curriculum guidelines and resources for undergraduate programs in project management (PM). In response to requests from the academic community, we provide undergraduate PM curriculum guidelines, along with resource materials, to help instructors introduce, or enhance, courses in project management. The website http://www.pmiteach.org will serve as a key resource for users of the guidelines, and it will provide ancillary material for all volumes. The website will contain updates to the guidelines as well as links to new teaching resources. Specifically, it will consist of: examples of course outlines, useful case studies, activities, term project assignments, and other PM teaching resources. The website will also provide faculty with an opportunity for knowledge exchange and an avenue for contribution to the project management knowledge base.

There are three volumes in this series:

Volume I: Curriculum Guidelines

Volume I covers the undergraduate project management (PM) curriculum.

It describes the principles that guided the design of the curriculum and the objectives of the guidelines. It lists a series of knowledge modules and associated learning outcomes. It also provides a list of courses and a program of study in project management with core knowledge modules for both a minor and a major in project management.

Volume II: The Foundations of Project Management Course [PM-1]

Volume II describes the content of a foundational course in project management, along with relevant resources for teaching it.

Volume III: Project Teams, Leadership, and Communication Course [PM-2]

Volume III describes the content of a course in the behavioral skills associated with project management, along with relevant resources for teaching it.

The Framework of the Curriculum Guidelines

The guidelines consist of a curriculum framework and recommended approaches to designing a project management curriculum.

The framework consists of a compendium of knowledge modules. The topics specified in the knowledge modules can be combined in different ways to create a curriculum of new courses or simply augment any existing curriculum.

Volume I introduces the rationale and principles that guided the design of the curriculum framework in Chapters 2 and 3, the knowledge modules and instances of several courses derived from the knowledge modules in Chapters 4 and 5, and various ways to leverage the guidelines in Chapter 6. This volume also provides guidance for designing a curriculum that can lead to minors or majors in PM.
The Curriculum Resources

The curriculum resources introduce detailed specifications of exemplar project management courses and pedagogically relevant teaching assets.

Volume II introduces one such exemplar foundational course in project management (PM-1). This foundational course is relevant to several academic domains, including Business, IT, Health Sciences, and Engineering. Volume II also introduces the necessary resources for teaching PM-1. The teaching resources include detailed course content, course syllabi, case studies, discussion questions, assignment activities, and a term project. New academics, especially, will find the resource materials useful when introducing that first course in project management at their institutions. Volume III continues this pattern, with the second of the course guidelines dealing with behavioral skills, and also includes example teaching resources that are particularly useful in the instruction of these special concepts and behaviors.

Charter

A significant window of opportunity for the project management academic community is developing at the undergraduate level, and that is driving us to design the guidelines for undergraduate project management education. As employers’ demands for students competent in project management continues to grow, it is important to provide guidelines and resources for faculty interested in teaching project management.

The charter from PMI defines the scope of this project:

Develop a project management curriculum guideline along with teaching resources for the Undergraduate (UG) market. The curriculum framework should provide useful guidance to the academic community and as such, the project should seek extensive support and participation from them.

In the development of the guidelines, PMI has continuously emphasized two ideas:

1. This effort is “by academics for academics.” This includes experienced practitioners involved in teaching and research in academia either on a full-time or part-time basis.
2. This is not to be a “curriculum in a box.” It is expected that the guidelines can be tailored to individual faculty needs and is therefore designed to be flexible.

The curriculum taskforce established the scope of the curriculum framework and guidelines to launch the effort:

1. The PM curriculum guidelines should provide the core PM skill set and competencies that a student should possess.
2. The guidelines should define the skill sets that are in concordance with the project management community.
3. The guidelines should be rich in both qualitative and quantitative skill sets.
4. The guidelines should be designed to integrate with existing academic programs.
5. The guidelines should produce proficient, entry-level graduates for the workplace in any domain.
It should be emphasized that the PM curricula will likely interface or intersect with similar curricula in other application or industry domains. However, we regard such curricula as outside the scope of this project.

The process of developing the framework followed directly from this charter. Before we begin, it is useful to document what is outside the scope of the framework:

1. It shall not focus on any curricula that are not project management.
2. It shall not focus on any one domain or discipline.
3. It shall not contradict other standards.
4. It shall not exclude theoretical or applied principles.
5. It shall not focus on pedagogical techniques or the channel of delivery.

The Users of the Guidelines

The following entities will find the project management curriculum framework useful:

- Heads of any academic departments simply interested in offering a cluster of project management courses
- Heads of any academic departments interested in offering a specialization in project management or a program with project management emphasis
- Heads of established project management programs interested in comparing or benchmarking their programs with a consensus-driven curriculum guideline
- Project management faculty interested in introducing new courses to strengthen their offerings in project management
- Other faculty interested in integrating useful project management topics into their existing courses

Additionally, college administrators or department chairs charged with expanding their program offerings might find the guidelines useful. Developing new courses can be challenging and, as indicated earlier, comprehensive teaching material to introduce that first course in project management is also being made available to all users of the guidelines.
Chapter III-1: PM-2 Course Overview

Background

In this chapter, we describe the content for, and philosophy behind, an undergraduate course in behavioral skills—Project Teams, Leadership, and Communication.

Building on the framework established in the Curriculum Guidelines Project, the first step in the development of the PM-2 course specification involved oral and written input that was obtained from a dozen faculty and 75 practitioners knowledgeable in the PM behavioral domain who attended the “Project Management in Practice Conference,” Boston University, Boston, MA in May of 2016. The open-ended research instrument given to these participants solicited preliminary input regarding characteristics and needs of the workforce, learning outcomes, topics, and suggestions for desired student competencies in areas of project management communications and leadership.

In June of that year, the project leadership defined the general PM-2 project objectives, and the project was launched a month later. The project team was assembled into a PM-2 Course Development Committee (CDC) with diverse global and disciplinary representation who were given the charge to identify an optimum curriculum for PM-2 and to accomplish the intended outcomes. Committee members represented such PM disciplines as management, IS/IT, and various segments of Engineering, and were geographically diverse enough to provide perspectives on potential impacts of geographic and cultural differences regarding the time line and content of a PM-2 course.

In August of 2016, a project workshop was convened in conjunction with the Americas Conference on Information Systems (AMCIS) Conference in San Diego, CA. Based on input from the above steps and the curricular guidelines previously established for the course, this one-day CDC meeting explored important and relevant content and defined a second iteration of the PM-2 topic list, learning outcomes, and preliminary criteria for recommended teaching resources to be developed.

This first draft of PM-2 course specifications was reviewed by a global PMI Academic Management Advisory Group (AMAG) during their October 2016 meeting in South America, and recommendations were fed back to the PM-2 CDC leadership.

In late October of 2016, a second meeting of the CDC was held in Alexandria, VA. This two-day working session used the deliverables from the West Coast CDC Workshop and the input from the global PMI AMAG to finalize the course design, including the final specifications for the course schedule, detailed instructional activities, recommended ways to assess student learning for each learning outcome, and a list of topic-related example teaching resources to be included in the curriculum guidelines.

Following the second workshop, several of the recommended individual teaching resources were developed by selected experts in the CDC to provide examples of ways in which Project-Based Learning, Active Learning, Case-Based Learning, and Simulations could effectively teach the required behavioral competencies that were specified for the curriculum.

As well as the course content, we describe the instructional resources, including course outline, proposed curricula, suggested lectures, and activities (homework assignments, discussion topics, class work, etc.).
The rationale for PM-2 includes the idea that PM behavioral skills cover a wide range of content topics, and these skills require some practice with feedback to develop them properly. Therefore, it is advised that PM-2 assignments provide students with an opportunity to not only reflect on the concepts, but to try out these skills, and use feedback to improve and grow as effective project managers.

While we provide details for a one-semester course, this outline is intended as a baseline or template for other types of implementations as well—we do not present a single, uniform approach. Rather, we establish a baseline, then present opportunities to develop variations, such as different emphases for certain priorities.

The curriculum is designed to be applicable to projects in all disciplines and industries, including construction, technical, research, defense, healthcare, information technology, and pharmaceuticals, as well as nonprofit and arts organizations. However, it is also assumed that the course would be adjusted to emphasize certain priorities or activities that would be associated with these domains. Assignments and cases could easily be tailored to situations and issues that are most representative of a given context for a certain discipline, domain, or organization.

It is assumed that the student has taken a foundation course in project management concepts, such as PM-1 described in Volume II of this series. However, it may be appropriate to teach such concepts in a variety of related courses, so the topics presented here can be considered modular, being able to be included in the curriculum at the points where they can augment other skills and concepts.

The course is intended to cover the broad range of most of the behavioral aspects of modern PM. By the end of this course, students should be able to fundamentally lead teams and build relationships as effective PMs, as described by the behavioral knowledge modules (KMs), including communication, interpersonal, leadership, ethical, critical-thinking, and problem-solving skills and behaviors in a variety of contexts.

Course Structure

Course Title: PM-2: Project Teams, Leadership, and Communication

Course Description:

This course provides students with comprehensive knowledge and skills in project teams, project leadership, project communications, and stakeholder engagement. They will master theoretical and applied skills in planning, distributing, and managing project communication; identifying and engaging stakeholders; analyzing and interpreting project organization and context; and applying best practices in project team management.

The following are the high-level learning goals for the course. At the successful completion of the PM-2 Course, students will be able to:

1. Describe how project purpose, organizational structure, culture, roles, and knowledge management impact their ability to lead a project team.
2. Identify, recognize, and engage both internal and external project stakeholders.
3. Explain roles of team members and how they contribute to projects, and apply an understanding of self in how they relate to teams.
4. Apply knowledge of team building, operation, and behavior, considering factors that influence effectiveness for all types of teams, including those that are virtual and global.

5. Identify and apply an appropriate communication strategy for a given situation.

6. Analyze power dynamics and organizational politics, and suggest conflict management and negotiation techniques relevant to the project.

7. Apply critical and innovative thinking skills to improve their own, and others’, decision-making processes within projects.

8. Describe and relate basic leadership principles and processes to address leadership issues and to remove obstacles in the project environment.

9. Describe the organizational change management process and encourage behavior to maximize project success.

10. Describe underlying ethical principles, which should be applied to managing projects, and demonstrate ethical sensitivity for a given situation.

**Relevant KMs:**

PM-2 draws topics extensively from the following behavioral knowledge modules (*see Volume I*):

- Plan, Distribute, and Manage Project Communications (B- DC)
- Project Team Building and Motivating (B- TB)
- Project Leadership (B- PL)
- Identifying and Engaging Stakeholders (B- SE)
- Project Organization and Context (B- OC)
- Managing Global Projects (B- GP)
- Virtual Project Management (B- VP)
- Ethics and Professionalism (B- EP)

**PM-2: Course Content Outline**

The following sections list the recommended sequence of major topic areas of the course, including instructional goals, associated content topics, and the learning outcomes that can be expected for each:

**PM CONTEXT**

Goal: Students will describe how project purpose, organizational structure, culture, roles, and knowledge management impact their ability to lead a project team.

- Project Purpose and Alignment
- Organization
- Cultural Context and Layering of Cultures
• Characteristics of Large Global Projects
• The Role of Knowledge in Projects

Learning Outcome

LO1: Assess and document the contextual linkages between the parent organization and the project, and formulate approaches to project execution methods, roles, responsibilities, and relationships.

PROJECT STAKEHOLDERS

Goal: Students will be able to identify, recognize, and engage both internal and external project stakeholders.

• Identifying Stakeholders
• Analyzing Stakeholders

STAKEHOLDER ENGAGEMENT

• Evaluating Stakeholder Relationships and Engagement
• Development of Stakeholder Trust
• Mobilize/Engage
• Mitigating Risks
• Dealing with Resistance
• Communicating
• Getting Feedback/Listening
• Managing Perceived Benefits
• Negotiating with, and Influencing, Stakeholders

Note: In our course outline, the above Stakeholder Engagement topics are introduced only after the teamwork concepts are introduced.

Learning Outcome

LO2: Analyze stakeholder influence, interest, priority, and engagement, and create a stakeholder management plan.

INDIVIDUAL AS TEAM MEMBER

Goal: Students will be able to explain roles of team members and how they contribute to projects, and apply an understanding of self in how they relate to teams.

• Understanding Self
• Role of Team Member—individual and collective
• Presence Management
Learning Outcomes:

LO3: Demonstrate awareness of diversity of roles, backgrounds, and personal competencies, including emotional intelligence and strengths among team members.

LO4: Reflect upon personal strengths and weaknesses, and develop a plan for continuous improvement with respect to team skills.

TEAMWORK

Goal: Students will apply knowledge of team building, operation, and behavior, considering factors that influence effectiveness for all types of teams, including those that are virtual and global.

- Project Teams
- Team Building
- Managing Global Teams and Networks
- Managing Virtual Teams

Learning Outcomes:

LO5: Reflect upon the formation and motivation of teams and the dynamics of teamwork to plan and build teams for successful projects.

LO6: For projects with multiple cultures and languages in large-scale, global environments across time zones, recommend appropriate approaches for managing communications, teams and their motivation, meetings, cross-functional teams, matrix management, and virtual team environments.

LO6X: (Optional) Given a specific project context and plan that specifies a virtual team in a cross-cultural project environment, formulate plans for communication and project integration that will define how the project manager and others will employ tools, methods, and approaches to best deal with the issues of managing the project with a virtual project team.

PROJECT COMMUNICATION

Goal: Students will be able to identify and apply an appropriate communication strategy for a given situation.

- Communication Models
- Communication Processes
- Appropriate Communication Styles
- Types of Communication
- Levels of Communication
- Target Audience
- Develop, Execute the Project Communication Plan, and Evaluate the Effectiveness of Project Communication
Learning Outcomes:

LO7: Describe and evaluate factors that influence the target audience communication preferences and styles and adapt communications approach to optimize message delivery and comprehension.

LO8: Select and contrast the application of various communications mediums based on the intended message and the project team composition and structure (i.e., cultural diversity, geographic location, and technological acumen).

POWER AND POLITICS

Goal: Students will be able to analyze power dynamics and organizational politics, and suggest conflict management and negotiation techniques relevant to the project.

- Power and Influence
- Politics
- Conflict management—internal to team versus external stakeholders
- Negotiation

Learning Outcomes:

LO9: Describe power dynamics and political factors influencing behavior and analyze their likely effects on project outcomes

L10: Given a project situation, choose suitable conflict management and negotiation strategies.

DECISION MAKING

Goal: Students will apply critical and innovative thinking skills to improve their own, and others’, decision-making processes within projects.

- Decision Biases
- Decision Processes
- Problem-Solving Techniques; Innovative approaches (e.g., DeBono’s thinking hats)
- Communicating Decisions

Learning Outcomes:

L11: Demonstrate knowledge of decision-making models, assumptions, and biases, and their impact as they relate to project situations.

L12: Apply decision-making models, involving decision processes, problem-solving and innovation techniques typically used in projects, considering key decision-making influences and linkages between organizational and project-level issues.
LEADERSHIP

Goal: The student will be able to describe and relate basic leadership principles and processes to address leadership issues and to remove obstacles in the project environment.

- Basic Leadership Principles
- Key Processes/Activities
- Leadership Issues
- Self-Assessment of Leadership (see Individual as Team Member)

Learning Outcomes:

LO13: Recognize and describe the different leadership principles and processes used to solve a project issue.
LO14: Given a project issue or obstacle that may involve multicultural, intergenerational, hierarchical, and virtual teams, describe which leadership principles and processes will best motivate and develop leadership in others while removing issues.
LO15: Analyze leadership principles and processes and design a leadership strategy that defends the use of those principles and processes to solve a leadership issue involving multicultural, intergenerational, hierarchical, and virtual teams, which result in a more motivated team.

LEADING CHANGE MANAGEMENT

Goal: Students will be able to describe the organizational change management process and encourage behavior to maximize project success.

- Change Process Management
- Change Leadership—the role of the PM

Learning Outcome

LO18: Given a specific situation, apply organizational change management principles to maximize successful achievement of project objectives.

ETHICS AND PROFESSIONALISM THROUGH THE PROJECT LIFE CYCLE

Goal: Students will be able to describe underlying ethical principles, which have to be applied to managing projects, and demonstrate ethical sensitivity for a given situation.

- Principles- and Values-Based Ethics
- Global Ethics
- Ethical Justification of Behavior
- Ethical Leadership
- Legal Issues
- Remaining Aware of Global Social Responsibility
- Whistleblowing and Accountability
- Examples of Existing Codes of Conduct
Learning Outcomes:

LO16: Evaluate and assess the importance of ethics and professionalism in every aspect of the project’s operation, and examine the factors that influence moral conduct.

LO17: Given a project scenario involving ethical considerations, determine how a project can be executed according to ethical principles and issues of global social responsibility.

General Pedagogical Approach to PM-2

The course is designed to develop behavioral competency through delivery of fundamental conceptual information, followed by supervised practice with feedback. This type of pedagogy helps students to build concepts through application—a key point in the development of behavioral skills. When the behavior being learned is that of client interaction, for example, one can envision multiple approaches that would allow an instructor to assess student learning in this complex area. One of the greatest challenges is that of stimulus transfer—enabling the student to react appropriately to triggers outside of the classroom that should stimulate certain behaviors. It is one thing to teach a student the concept of “professionally reacting to an angry stakeholder through maintaining professional decorum, and so on.” However, the student needs to not only identify such a situation, but they must also know how best to react under those conditions to maintain the client relationship and achieve positive results for the tasks at hand. While the student could recite correctly what they would do in each situation if asked on an exam, the real stimulus transfer will be complete when the student responds properly during the real interaction outside of the classroom. Such preparation occurs best through giving the student the opportunity to demonstrate this in an environment comparable to what they will encounter in the field. Therefore, the opportunity for students to engage in an experience, rather than to simply describe the actions that are supposed to be taken during such an interaction, is best instructional practice whenever feasible.

Therefore, the course includes numerous controlled opportunities for students to experience some degree of the actual scenarios that are common in the field, through case problems and discussions, experiential learning in the context of managing short-range, simple projects for real organizations, or simulations done under conditions that can come close to the real thing but that can remain relatively “safe.”

Other information to be learned and assessed, such as terms, definitions, lists, or short vignettes or situations, can be measured through written testing, where such instruments stimulate recall of discrete information. Therefore, even in a course where experiential learning is predominant, the written test or exam can still be very appropriate to measure such recall.
Chapter III-2: Course Schedule

Course Session Sequence

In this section, we provide the list of topics to be covered in the course. Table III-2-1 lists the topics, the associated subtopics, and homework assignments. Topics are referred to as “session topics,” as they could be covered in a single or multiple lectures and in detail.

Each row of the table contains the session topics and subtopics.

Typical learning assessment topics are also listed. These can be implemented as in-class discussions or homework assignments, and may be organized for individual or team activity depending upon the nature of each.

*Table III-2-1: Session-topics outline for the PM-2 course*

<table>
<thead>
<tr>
<th>Week</th>
<th>Session Topic</th>
<th>Subtopics</th>
<th>Choices for Assessments/Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Project Purpose and Alignment</td>
<td>• Why before what&lt;br&gt;• Projects as strategy alignment or implementation&lt;br&gt;• Organizational agility&lt;br&gt;• Benefits realization and outcome&lt;br&gt;• Risk tolerance&lt;br&gt;• Identifying complexity—factors and issues</td>
<td></td>
</tr>
<tr>
<td>1B</td>
<td>Project Organization</td>
<td>• Temporary versus permanent&lt;br&gt;• Organization structure, roles, decision making, power relationships, and matrix management&lt;br&gt;• PMO structure and function&lt;br&gt;• Portfolio and program management&lt;br&gt;• Project organization and PM roles</td>
<td></td>
</tr>
<tr>
<td>2A</td>
<td>Cultural Context and Layering of Cultures</td>
<td>• Team&lt;br&gt;• Business unit sponsor&lt;br&gt;• Organization&lt;br&gt;• Industry&lt;br&gt;• Geography—team and project location</td>
<td>Given a scenario for a project, identify the organizational and cultural characteristics and linkages of the project to the PMO and the organization.</td>
</tr>
<tr>
<td>Week</td>
<td>Session Topic</td>
<td>Subtopics</td>
<td>Choices for Assessments/Activities</td>
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<td>2B</td>
<td>Characteristics of Large Global Projects</td>
<td>• Identifying risk and complexity in large global projects&lt;br&gt;• Logistics, distance, time zone, jurisdiction challenges, and language&lt;br&gt;• Understanding diversity</td>
<td>• Scenario analysis of global project</td>
</tr>
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<td>3</td>
<td>The Role of Knowledge in Projects</td>
<td>• Culture of knowledge capture, sharing, use; Lessons learned&lt;br&gt;• Extending wisdom through collaboration/trust&lt;br&gt;• Tools, project Repositories&lt;br&gt;• Visualization—search and find</td>
<td>• Case study (use of knowledge management) with focus on assessment and lessons learned</td>
</tr>
<tr>
<td>4A</td>
<td>Identifying Stakeholders</td>
<td>• Internal/External&lt;br&gt;• Stakeholder maps&lt;br&gt;• Customers as stakeholders&lt;br&gt;• Champions and sponsors</td>
<td></td>
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<tr>
<td>4B</td>
<td>Analyzing Stakeholders</td>
<td>• Priorities/Impacts/Values&lt;br&gt;• Methods to gather information about stakeholders&lt;br&gt;• Analysis and classification—scope/impact, timing, and visibility&lt;br&gt;• Value: What do they value?; The challenge of projection bias</td>
<td>• Project scenario (case study, problem case, summary of existing project, experiential situation, information from interviews, etc.) from which the student develops a stakeholder management plan.</td>
</tr>
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<td>5</td>
<td>Individual as Team Member</td>
<td>• Understanding self&lt;br&gt;  o Self-awareness&lt;br&gt;  o Emotional intelligence&lt;br&gt;  o Individual learning styles&lt;br&gt;  o Leadership is everywhere—individual leadership style&lt;br&gt;• Role of team member—individual and collective&lt;br&gt;  o Diversity and cultural awareness&lt;br&gt;• Presence management&lt;br&gt;  o Reflexivity&lt;br&gt;  o Self-management (stock taking)</td>
<td>• Scenario: Identify issues in awareness of diversity of roles, backgrounds, and personal competencies, including emotional intelligence and strengths among team members&lt;br&gt;• Assess personal strengths/weaknesses and develop a plan (e.g., Myers/Briggs instrument)</td>
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</table>
| 6A   | Project Teams       | • Types of teams (distributed, collocated, virtual, global, and self-managed)  
• Team management  
• Team meetings  
• Difficulties with working in teams  
• Team learning | • Assignment to analyze and develop plan (e.g., kickoff meeting)  
• Exam |
| 6B   | Team Building       | • Processes, challenges, and barrier in the team context  
• Defining high-performance project teams  
• Team member engagement  
• Role of PM in team development, composition, formation, and closeout  
• Development of expertise | |
| 7A   | Managing Global Teams and Networks | • Leading and managing virtual teams  
• Managing interorganizational relationships  
• Cross-cultural awareness and sensitivity | • Scenario analysis  
• Ethnographic study  
• Given a rubric for teamwork, extend it for a specific situation, including global and virtual project settings |
| 7B   | Managing Virtual Teams | • The roles of, and effects of, tools in virtual PM  
• Being aware of tools and opportunities and difficulties using tools that support virtual teams; mapping tasks to virtual tools  
• Addressing social attributes | • Reflect on individual experiences from a real-world project situation  
• Project simulation software |
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</table>
| 8    | Communication—Part 1 | • Communication models  
• Communication processes  
  o Channels and media  
  o Cross-cultural communication  
  o Individual communication styles—knowing your own and recognizing others  
  o Potential communication barriers and resolution  
  o Influence of complexity  
• Appropriate communication styles  
  o Appreciative/reflective/humble inquiry/adaptive  
  o Two-way effective listening  
  o Collaboration  
• Types of communication  
• Levels of communication | • Exam  
• In-class exercise regarding positive and negative examples of effective communication  
• Experiential awareness exercises regarding communication styles, active listening, nonverbal communication, and related concepts |
| 9A   | Communication—Part 2 | • Target audience | Scenario: Audience analysis (could be a crisis scenario) |
| 9B   | Stakeholder Engagement | • Evaluating stakeholder relationships and engagement  
• Development of stakeholder trust  
• Mobilize/Engage  
• Mitigating risks  
• Dealing with resistance  
• Communicating  
• Getting feedback/listening  
• Managing perceived benefits  
• Negotiating with, and influencing, stakeholders | • Experiential Learning—possible project scenario in which the sponsor evaluates the student on these items  
• Vignettes: Analyze and recommend approaches  
• Simulation |
<p>| 9C   | Communication Planning | • Develop, execute the project communication plan, and evaluate the effectiveness of project communication | Scenario: Prepare a project communication plan |</p>
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</table>
| 10A  | Power/Politics | • Power and influence  
|      |              |   o Types of power  
|      |              |   o Sources of power  
|      |              |   o Power differentials (e.g., roles, status, organization level, gender, racial)  
|      |              | • Politics  
|      |              |   o Factors influencing political behavior  
|      |              |   o Political tactics  
|      |              | • Conflict management—internal to team versus external stakeholders  
|      |              |   o Thank you for arguing  
|      |              |   o Issue management  
|      |              |   o Constructive confrontation  
|      |              | • Negotiation  
|      |              | • Exam  
|      |              | • Vignette: Identify issues and impacts  
|      |              | • Case study/Scenario  
|      |              | • How to argue  
|      |              | • Role playing  
| 10B  | Decision Making—Part 1 | • Influences on decision making  
|      |              |   o Authority and stakeholders  
|      |              |   o Time pressure  
|      |              |   o Information credibility and availability  
|      |              |   o Intuition and data-driven decisions  
|      |              |   o Bounded rationality, ambiguity, sensitivity, and complexity  
|      |              | • Decision biases  
|      |              |   o Groupthink  
|      |              |   o Cognitive biases  
|      |              |   o Emotional biases  
|      |              | • Exam  
|      |              | • Class exercises in thinking hats, and so on; timed exercises with situational constraints  
|      |              | • Case study involving ethics and negotiations  
|      |              | • Scenario: Evaluate behavior of stakeholders as per established choices and the consequences of those choices (legal, cultural, etc.) and discussion  

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<tbody>
<tr>
<td>11A</td>
<td>Decision Making—Part 2</td>
<td>• Decision processes</td>
<td>• Exam</td>
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<tr>
<td></td>
<td></td>
<td>o Individual versus team decision processes</td>
<td>• Class exercises in thinking hats, and so on; timed exercises with situational constraints</td>
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<td>o Decision making with distributed project teams</td>
<td>• Case study involving ethics and negotiations</td>
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<td>o Types of decision making (demand, participative, consensus, etc.)</td>
<td>• Scenario: Evaluate behavior of stakeholders as per established choices and the consequences of those choices (legal, cultural, etc.) and discussion</td>
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<td></td>
<td></td>
<td>o Sense-making</td>
<td>• NASA case studies</td>
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<td>• Problem solving techniques; innovative approaches (e.g., DeBono’s thinking hats)</td>
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<td></td>
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<td>• Communicating decisions</td>
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<tr>
<td></td>
<td></td>
<td>o Sense giving</td>
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<tr>
<td>11B</td>
<td>Basic Leadership Principles</td>
<td>• Leadership traits; empathy</td>
<td>• Exam</td>
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<tr>
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<td>• Leader versus manager versus entrepreneur versus change agent</td>
<td>• Class exercises, role plays, simulations</td>
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<td>• Leadership by all members, not just the PM; mentoring</td>
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<td>• Leadership styles, situational and shared leadership, servant leadership</td>
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<td>• Managing up—vertical leadership</td>
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<td>• Delegation</td>
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<td>• Self-managed teams</td>
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<td>• Leadership by influence</td>
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<td>12</td>
<td>Leadership—Part 2</td>
<td>• Key processes/activities</td>
<td>• Video scenarios: Analyze leadership practices/behaviors based on defined guidelines</td>
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<tr>
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<td>o Developing citizenship behaviors</td>
<td>• Guest lecture/discussion with local practitioner</td>
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<td>o Developing team culture</td>
<td>• Scenario: Conference call in real life: Issues regarding virtual leadership, group activities</td>
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<td>o Developing trust-shared models within the team</td>
<td>regarding cultural differences, intergenerational leadership—how it affects the project plan</td>
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<td></td>
<td>o Locus of control—delegation/vertical, self-managed/horizontal</td>
<td>• Paper: Interview a PM and analyze/assess leadership practices</td>
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<td>o Rewarding performance and recognition</td>
<td>• Analyze award-winning projects regarding leadership principles</td>
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<td>o Performance feedback and coaching</td>
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<td>o Enabling and empowering teams</td>
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<td></td>
<td>• Leadership Issues</td>
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<td>o Cross-cultural aspects of leadership</td>
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<td>o Leading in agile projects</td>
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<td>o Generational leadership</td>
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<td></td>
<td>o Negative leadership styles</td>
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<td>• Self-assessment of leadership (see Individual as Team Member)</td>
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<td>13</td>
<td>Leading Change</td>
<td>• Change process Management</td>
<td>• Exam</td>
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<td>o Force-field analysis</td>
<td>• Case Study: Develop a plan for change management</td>
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<td>o Change models</td>
<td>• Integrate assignments/activities with stakeholder and communications plans</td>
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<td>o Transition process</td>
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<td>o Resistance to change</td>
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<td>o Communicating during change</td>
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<td>o Post-implementation reviews</td>
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<td>• Change leadership—the role of the PM</td>
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<td>Week</td>
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<td>Subtopics</td>
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</table>
| 14   | Ethics and Professionalism | • Principles- and values-based ethics  
• Global ethics  
• Ethical justification of behavior  
• Ethical leadership: organizational ethics versus personal or professional ethics; examples  
• Legal issues  
  o Country-based laws (e.g., Foreign Corrupt Practices Act, United States)  
  o Legal versus ethical issues  
• Remaining aware of global social responsibility  
  o Identifying relevant issues and determining materiality  
    ▪ Sustainability and green issues  
    ▪ ISO 26000 Issues  
  o Incorporating organizational and corporate social responsibility into the project design  
  o Evaluating outcomes  
• Whistleblowing and accountability  
• Examples of existing codes of conduct | • Integrate assignments/activities with stakeholder and communications plans  
• Case study involving ethics and negotiations  
• Scenario: Evaluate behavior of stakeholders as per established choices and the consequences of those choices (legal, cultural, etc.) and discussion  
• Examine a sample ethical code and apply it to a specific scenario |
| 15   | Course Wrap-Up     | • Scenario: Develop a post-implementation review to capture knowledge |                                                                                                   |

**Assessments of Learning**

There are numerous ways to measure student learning in such a course. We suggest the following general approaches:

For the discrete definitions, terms, basic concepts, and so forth, it is appropriate to provide examinations on the content. Such an instrument will act to generally confirm that these particular terms or concepts have been understood by the student, although an exam does not, of course, guarantee that the student can apply the concepts in a real-world scenario. We have indicated in the course schedule the areas when this might be appropriate. There are several such areas—it is not assumed that the instructor will provide an examination in all such areas, only that these are points where an examination might provide at least one level of learning assessment.
In the case of the majority of the topics in this “soft-skill” domain, we feel that the instructor should provide opportunities for students to engage in simulations, role plays, and scenario analysis. Such activities offer significant opportunities for discussions, and give the instructor methods for evaluating the student’s application of learned concepts in situations where they are encountering new challenges or issues.

Reflective assessments are also significant in such a domain. These can be in the form of standard or other instruments that inventory the approaches of the student and chart them along certain dimensions according to rubrics. Communication and interaction styles are commonly measured in this way. The reflective essay is also an excellent tool to allow students to describe how they analyze a situation, how they would react or interact to others in the scenario, how they might choose certain behavior options over others, or what evaluation they might make in determining what behaviors would be appropriate in a given context.

Case problems and scenarios can be a good way to “stage” a situation that demands some interactive behavior. Role plays are an extension to the case problem/scenario in that the students can enact the scenario and then reflect on or analyze how it turned out, how they felt, what others might have felt, or why certain behaviors took place.

The case-study approach is also effective for this domain—there are several that would serve as a real-world example of a project in which a leader’s team, communication, or leadership skills have determined certain aspects of the outcome.

Experiential learning is perhaps the most adventurous of the approaches for learning assessment. This type of activity engages the students in a contained, but real, situation in which they must then analyze, reflect, and manage their own behavioral skills. Such an approach requires the instructor to arrange the staging of the project work, perhaps in a not-for-profit organization in the community or other similar real project opportunity.

The teaching resources that are provided in this volume contain some examples of the above—more can be found at www.pmiteach.org.
Chapter III-3: PM-2 Course Localizations

Overview

It is understood that not all areas of the world share the same emphasis on the topics included in the PM-2 course, and the 15-week semester is not a typical duration of an academic term around the world either. Therefore, we provide this section to describe how various faculty in the working group have suggested adaptation of the PM-2 course to their own particular setting. From our experience, you might be able to adapt one of the various formats introduced in this volume for your region.

PM-2 Localization: Australia

The Australian semester is already well-suited to the proposed schedule for the PM-2 model course contained in this volume. Australian universities generally have 13 teaching weeks, with three hours of class contact time per week. This is quite standard for a tertiary semester in Australia. There seems to be a move away from continuous assessment in the Australian context, with three pieces of assessment being standard (usually exam plus two other items). Therefore, the proposed PM-2 course schedule can provide guidance to Australian faculty while leaving some flexibility to change the assessment and content to some degree, depending on local needs and personal tastes.

PM-2 Localization: United Kingdom

The following is a sample schedule for PM-2 that could be implemented in a typical 12-week semester in the United Kingdom:

Table III-3-1: Outline for the PM-2 course in the United Kingdom

<table>
<thead>
<tr>
<th>Week</th>
<th>Session Topic</th>
<th>Subtopics</th>
<th>Choices for Assessments/Activities</th>
</tr>
</thead>
</table>
| 1A   | Project Purpose and Alignment| • Why before what  
• Projects as strategy alignment or implementation  
• Organizational agility  
• Benefits realization and outcome  
• Risk tolerance  
• Identifying complexity—factors and issues |                                    |
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<tr>
<td>1B</td>
<td>Project Organization</td>
<td>• Temporary versus permanent&lt;br&gt;• Organization structure, roles, decision making, power relationships, and matrix management&lt;br&gt;• PMO structure and function&lt;br&gt;• Portfolio and program management&lt;br&gt;• Project organization and PM roles</td>
<td>• Given a scenario for a project, identify the organizational and cultural characteristics and linkages of the project to the PMO and the organization.</td>
</tr>
<tr>
<td>2A</td>
<td>Cultural Context and Layering of Cultures</td>
<td>• Team&lt;br&gt;• Business unit sponsor&lt;br&gt;• Organization&lt;br&gt;• Industry&lt;br&gt;• Geography—team and project location</td>
<td>• Case study (use of knowledge management) and assessment of lessons learned</td>
</tr>
<tr>
<td>2B</td>
<td>Characteristics of Large Global Projects</td>
<td>• Identifying risk and complexity in large global projects&lt;br&gt;• Logistics, distance, time zone, jurisdiction challenges, and language&lt;br&gt;• Understanding diversity</td>
<td>• Scenario: Develop a post-implementation review to capture knowledge</td>
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<td>3A</td>
<td>Identifying Stakeholders</td>
<td>• Internal/External&lt;br&gt;• Stakeholder maps&lt;br&gt;• Customers as stakeholders&lt;br&gt;• Champions and sponsors</td>
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<td>• Priorities/Impacts/Values&lt;br&gt;• Methods to gather information about stakeholders&lt;br&gt;• Analysis and classification—scope/impact, timing, and visibility&lt;br&gt;• Value: What do they value?; The challenge of projection bias</td>
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| 4    | Individual as Team Member | • Understanding self  
  o Self-awareness  
  o Emotional intelligence  
  o Individual learning styles  
  o Leadership is everywhere—individual leadership style  
 • Role of team member—individual and collective  
  o Diversity and cultural awareness  
 • Presence management  
  o Reflexivity  
  o Self-management (stock taking)  
 | • Scenario: Identify issues in awareness of diversity of roles, backgrounds, personal and competencies, including emotional intelligence and strengths among team members  
 • Assess personal strengths/weaknesses and develop a plan (e.g., Myers/Briggs instrument) |
| 5A   | Project Teams | • Types of teams (distributed, colocated, virtual, global, and self-managed)  
 • Team management  
 • Team meetings  
 • Difficulties with working in teams  
 • Team learning | |
| 5B   | Team Building | • Processes, challenges, and barrier in the team context  
 • Defining high-performance project teams  
 • Team member engagement  
 • Role of PM in team development, composition, formation and closeout  
 • Development of expertise | • Assignment to analyze and develop plan (e.g., Kickoff meeting)  
 • Exam |
| 6A   | Managing Global Teams and Networks | • Leading and managing virtual teams  
 • Managing interorganizational relationships  
 • Cross-cultural awareness and sensitivity | • Scenario analysis  
 • Ethnographic study  
 • Given a rubric for teamwork, extend it for a specific situation, including global and virtual project settings |
| 6B   | Managing Virtual Teams | • The roles of, and effects of, tools in virtual PM  
 • Being aware of tools and opportunities and difficulties using tools that support virtual teams; mapping tasks to virtual tools  
 • Addressing social attributes | • Reflect on individual experiences from a real-world project situation  
 • Project simulation software |
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| 7A   | Communication—Part 1 | • Communication models
      • Communication processes
        o Channels and media
        o Cross cultural communication
        o Individual communication styles—knowing your own and recognizing others
        o Potential communication barriers and resolution
        o Influence of complexity
      • Appropriate communication styles
        o Appreciative/reflective/humble inquiry/adaptive
        o Two-way effective listening
        o Collaboration
      • Types of communication
      • Levels of communication | • Exam
      • In-class exercise regarding positive and negative examples of effective communication
      • Experiential awareness exercises regarding communication styles, active listening, nonverbal communication, and so on |
| 8A   | Communication—Part 2 | • Target audience                                                         | • Scenario: Audience analysis (could be a crisis scenario)                                      |
| 8B   | Stakeholder Engagement | • Evaluating stakeholder relationships and engagement
      • Development of stakeholder trust
      • Mobilize/Engage
      • Mitigating risks
      • Dealing with resistance
      • Communicating
      • Getting feedback/Listening
      • Managing perceived benefits
      • Negotiating with, and influencing, stakeholders | • Experiential learning—possible project scenario in which the sponsor evaluates the student on these items
      • Vignettes: Analyze and recommend approaches
      • Simulation |
<p>| 8C   | Communication Planning | • Develop, execute the project communication plan, and evaluate the effectiveness of project communication | Scenario: Prepare a project communication plan                                                                                   |</p>
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<td>8D</td>
<td>Power/Politics</td>
<td>• Power and influence   &lt;br&gt;  o Types of power  &lt;br&gt;  o Sources of power  &lt;br&gt;  o Power differentials (e.g., roles, status, organization level, gender, racial)  &lt;br&gt;  • Politics   &lt;br&gt;  o Factors influencing political behavior  &lt;br&gt;  o Political tactics  &lt;br&gt;  • Conflict management—Internal to team versus external stakeholders  &lt;br&gt;  o Thank you for arguing  &lt;br&gt;  o Issue management  &lt;br&gt;  o Constructive confrontation  &lt;br&gt;  • Negotiation</td>
<td>• Exam  &lt;br&gt;  • Vignette: Identify issues and impacts  &lt;br&gt;  • Case study/Scenario  &lt;br&gt;  • How to argue  &lt;br&gt;  • Role playing</td>
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<tr>
<td>9A</td>
<td>Decision Making—Part 1</td>
<td>• Influences on decision making  &lt;br&gt;  o Authority and stakeholders  &lt;br&gt;  o Time pressure  &lt;br&gt;  o Information credibility and availability  &lt;br&gt;  o Intuition and data-driven decisions  &lt;br&gt;  o Bounded rationality, ambiguity, sensitivity, and complexity  &lt;br&gt;  • Decision biases  &lt;br&gt;  o Groupthink  &lt;br&gt;  o Cognitive biases  &lt;br&gt;  o Emotional biases</td>
<td>• Exam  &lt;br&gt;  • Class exercises in thinking hats, and so on; timed exercises with situational constraints  &lt;br&gt;  • Case study involving ethics and negotiations  &lt;br&gt;  • Scenario: Evaluate behavior of stakeholders as per established choices and the consequences of those choices (legal, cultural, etc.) and discussion</td>
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| 9B   | Decision Making—Part 2 | • Decision processes  
  o Individual versus team decision processes  
  o Decision making with distributed project teams  
  o Types of decision making (demand, participative, consensus, etc.)  
  o Sense making  
 • Problem solving techniques; Innovative approaches – e.g. DeBono’s thinking hats  
 • Communicating decisions  
  o Sense giving | • Exam  
 • Class exercises in thinking hats, etc.; Timed exercises with situational constraints  
 • Case study involving ethics and negotiations  
 • Scenario: Evaluate behavior of stakeholders as per established choices and the consequences of those choices (legal, cultural, etc.) and discussion  
 • NASA case studies |
| 10A  | Basic Leadership Principles | • Leadership traits; empathy  
 • Leader versus manager versus entrepreneur versus change agent  
 • Leadership by all members, not just the PM; mentoring;  
 • Leadership styles, situational and shared leadership, servant leadership  
 • Managing up—vertical leadership  
 • Delegation  
 • Self-managed teams  
 • Leadership by influence | • Exam  
 • Class exercises, role plays, simulations |
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<td>o Developing citizenship behaviors</td>
<td>• Guest lecture/discussion with local practitioner</td>
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<td>o Developing team culture</td>
<td>• Scenario: Conference call in real life: Issues regarding virtual leadership, group activities</td>
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<td>o Developing trust-shared models within the team</td>
<td>regarding cultural differences, intergenerational leadership—how it affects the project plan</td>
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<td>o Locus of control—delegation/vertical, self-managed/horizontal</td>
<td>• Analyze award-winning projects regarding leadership principles</td>
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<td>o Rewarding performance and recognition</td>
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<td>o Enabling and empowering teams</td>
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<td>• Leadership Issues</td>
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<td>o Cross-cultural aspects of leadership</td>
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<td>o Leading in agile projects</td>
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<td>o Generational leadership</td>
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<td>o Negative leadership styles</td>
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<td>11</td>
<td>Leadership Self-Assessment; Leading Change</td>
<td>• Self-assessment of leadership (see Individual as Team Member)</td>
<td>• Paper: —Interview a PM and analyze/assess leadership practices</td>
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<td>• Change process management</td>
<td>• Case study: Develop a plan for change management</td>
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<td>o Transition process</td>
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<td>o Resistance to change</td>
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<td>o Communicating during change</td>
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<td>o Post-implementation reviews</td>
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<td>• Principles- and values-based ethics</td>
<td>• Integrate assignments/activities with stakeholder and communications plans</td>
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<td>• Case study involving ethics and negotiations</td>
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<td>• Remaining aware of global social responsibility</td>
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<td>▪ ISO 26000 Issues</td>
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<td>o Incorporating organizational and corporate social responsibility into the project design</td>
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<td>o Evaluating outcomes</td>
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<td>• Whistleblowing and accountability</td>
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<td>• Examples of existing codes of conduct</td>
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<td>12</td>
<td>Ethics and Professionalism</td>
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PM-2 Localization: Middle East

The following is a sample schedule for PM-2 that could be implemented in a typical 15-week semester in the Middle East. The sessions involve some degree of customization of the PM-2 content to adapt to the behavioral issues most commonly taught in this region:

*Table III-3-2: Outline for the PM-2 course in the Middle East*

<table>
<thead>
<tr>
<th>Week</th>
<th>Session Topic</th>
<th>Subtopics</th>
<th>Choices for Assessments/Activities</th>
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<tbody>
<tr>
<td>1A</td>
<td>Project Purpose and Alignment</td>
<td>• Why before what</td>
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<td>• Projects as strategy alignment or implementation</td>
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<td>• Organizational agility</td>
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<td>• Benefits realization and outcome</td>
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<td>• Risk tolerance</td>
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<td>• Identifying complexity—factors and issues</td>
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<td>1B</td>
<td>Project Organization</td>
<td>• Temporary versus permanent</td>
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<td></td>
<td>• Organization structure, roles, decision making, power relationships, matrix management</td>
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<td>• PMO structure and function</td>
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<td>• Portfolio and program management</td>
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<td></td>
<td>• Project organization and PM roles</td>
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<td>2A</td>
<td>Cultural Context and Layering of Cultures</td>
<td>• Team; business unit sponsor; organization</td>
<td>• Given a scenario for a project, identify the organizational and cultural characteristics and linkages of the project to the PMO and the organization.</td>
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<td>• Industry</td>
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<td>• Geography—team and project location</td>
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<td>2B</td>
<td>Characteristics of Large Global Projects</td>
<td>• Identifying risk and complexity in large global projects</td>
<td>• Case study—Burj Khalifa</td>
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<td>• Logistics, distance, time zone, jurisdiction challenges, and language</td>
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<td>• Cultural/social Composition of Middle East and Gulf Cooperative Council countries</td>
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<td>• Lewis Model of Cultural Classes</td>
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<td>Week</td>
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<td>Subtopics</td>
<td>Choices for Assessments/Activities</td>
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| 3    | The Role of Knowledge in Projects | • Culture of knowledge capture, sharing, use; lessons learned  
• Extending wisdom through collaboration/trust  
• Tools, project repositories  
• Visualization—search and find | • Case study (use of knowledge management) and assessment of lessons learned |
| 4A   | Identifying Stakeholders | • Internal/External  
• Stakeholder maps  
• Customers as stakeholders  
• Champions and sponsors | |
| 4B   | Analyzing Stakeholders | • Priorities/Impacts/Values  
• Methods to gather information about stakeholders  
• Analysis and classification—scope/impact, timing, and visibility  
• Cultural influences on stakeholder expectations | • Project scenario (case study, problem case, summary of existing project, experiential situation, information from interviews, etc.) from which the student develops a stakeholder management plan. |
| 5    | Individual as Team Member | • DISC theory (Dominance, Influence, steadiness, and conscientiousness assessments)  
• Understanding self  
• Role of team member—individual and collective  
  o Diversity and cultural awareness  
• Presence management  
  o Reflexivity  
  o Self-management (stock taking) | • Scenario: Identify issues in awareness of diversity of roles, backgrounds, personal competencies, including emotional intelligence and strengths among team members  
• Assess personal strengths/weaknesses and develop a plan (e.g., Myers/Briggs instrument) |
| 6A   | Project Teams | • Types of teams (distributed, collocated, virtual, global, and self-managed)  
• Team management and meetings  
• Difficulties with working in teams  
• Team learning | |
<table>
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<tr>
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</table>
| 6B   | Team Building | • Processes, challenges, and barrier in the team context  
• Defining high-performance project teams  
• Team member engagement  
• Role of PM in team development, composition, formation, and closeout  
• Development of expertise | • Assignment to analyze and develop plan (e.g., kickoff meeting)  
• Quiz |
| 7A   | Managing Global Teams and Networks | • Leading and managing virtual teams  
• Managing interorganizational relationships  
• Cross-cultural awareness and sensitivity | • Scenario analysis  
• Ethnographic study  
• Given a rubric for teamwork, extend it for a specific situation, including global and virtual project settings |
| 7B   | Managing Virtual Teams | • The roles of, and effects of, tools in virtual PM  
• Being aware of tools and opportunities and difficulties using tools that support virtual teams; mapping tasks to virtual tools  
• Addressing social attributes | • Reflect on individual experiences from a real-world project situation  
• Project simulation software |
| 8    | Communication—Part 1 | • Communication models  
• Communication processes  
  o Channels and media  
  o Cross-cultural communication  
  o Individual communication styles—knowing your own and recognizing others  
  o Potential communication barriers and resolution  
  o Influence of complexity  
• Major languages spoken in the Middle East  
• Appropriate communication styles  
• Types of communication  
• Levels of communication | • Midterm exam  
• In-class exercise regarding positive and negative examples of effective communication  
• Experiential awareness exercises regarding communication styles, active listening, nonverbal communication, and so on |
| 9A   | Communication—Part 2 | • Legally acceptable forms of communication  
• Target audience | Scenario: Audience analysis (could be a crisis scenario) |
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<tbody>
<tr>
<td>9B</td>
<td>Stakeholder Engagement</td>
<td>• Evaluating stakeholder relationships and engagement</td>
<td>• Experiential learning—possible project scenario in which the sponsor evaluates the student on these items.</td>
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<td>• Development of stakeholder trust</td>
<td>• Vignettes: Analyze and recommend approaches</td>
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<td>• Mobilize/Engage</td>
<td>• Simulation</td>
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<td>• Mitigating risks</td>
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<td>• Dealing with resistance</td>
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<td>• Communicating</td>
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<td>• Getting feedback/Listening</td>
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<td>• Managing perceived benefits</td>
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<td>• Negotiating with, and influencing, stakeholders</td>
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<td>9C</td>
<td>Communication Planning</td>
<td>• Develop, execute the project communication plan and evaluate the effectiveness of project communication</td>
<td>• Scenario: Prepare a project communication plan</td>
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<td>10A</td>
<td>Power/Politics</td>
<td>• Power and influence</td>
<td>• Quiz</td>
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<td>o Types of power:</td>
<td>• Vignette: Identify issues and impacts</td>
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<td>o Sources of power</td>
<td>• Case study/Scenario</td>
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<td>o Common pressure groups</td>
<td>• How to argue</td>
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<td>• Politics</td>
<td>• Role playing</td>
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<td>o Factors influencing political behavior</td>
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<td>o Political tactics</td>
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<td>• Conflict management—internal to team versus external stakeholders</td>
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<td>o Thank you for arguing</td>
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<td>o Issue management</td>
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<td>o Constructive confrontation</td>
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| 10B  | Decision Making—Part 1 | • Influences on decision making  
  o Authority and stakeholders  
  o Time pressure  
  o Information credibility and availability  
  o Intuition and data-driven decisions  
  o Bounded rationality, ambiguity, sensitivity, and complexity  
 • Decision biases  
  o Groupthink  
  o Cognitive biases  
  o Emotional biases | • Class exercises in thinking hats, and so on; timed exercises with situational constraints  
 • Case study involving ethics and negotiations  
 • Scenario: Evaluate behavior of stakeholders as per established choices and the consequences of those choices (legal, cultural, etc.) and discussion |
| 11A  | Decision Making—Part 2 | • Decision processes  
  o Individual versus team decision processes  
  o Decision making with distributed project teams  
  o Types of decision making (demand, participative, consensus, etc.)  
  o Sense making  
 • Problem solving techniques; innovative approaches (e.g., DeBono’s thinking hats)  
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<td>• Quiz&lt;br&gt;  • Case study: Develop a plan for change management&lt;br&gt;  • Integrate assignments/activities with stakeholder and communications plans</td>
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<td>• Legal issues</td>
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<td>o Country-based laws (e.g., Foreign Corrupt Practices Act, United States)</td>
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<td>o Legal versus ethical issues</td>
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<td>• Remaining aware of global social responsibility</td>
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<td>▪ Sustainability and green issues</td>
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<td>▪ ISO 26000 Issues</td>
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<td>o Incorporating organizational &amp; corporate social responsibility in</td>
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<td>• Whistleblowing and accountability</td>
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<td>• Examples of existing codes of conduct</td>
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<td>15</td>
<td>Course Wrap-Up</td>
<td>• Scenario: Develop a post-implementation review to capture knowledge</td>
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Appendix III-A: Example PM-2 Teaching Resources

The following sections of this document provide example teaching resources for the topics involved in the PM-2 course. These resources were developed by faculty for providing exemplary tools to serve as a starting point for instructors interested in implementing the course.

Throughout the course outlines, there are choices for assessments and activities. Instructors may also wish to provide other readings and opportunities for students to practice. The following sections are provided to stimulate the reader with possibilities and real resources that can be implemented with a minimum of adaptation.
Appendix III-A-1: Experiential Learning Project

An Experiential Approach to Developing Behavioral Skills for Project Managers

Overview:

This document is designed to support instructors who teach project management courses in two different ways:

- For instructors who are looking for a semester-long experiential project to complement the PM-2 Course, this document provides detailed guidelines for structuring such an assignment (see pages 2–6).
- For instructors who are looking for additional resources to complement PM-2 topics, the articles, cases, and exercises described here (see Sections A–H for details) can easily be used separately to deepen treatment of those topics or to introduce or reinforce technical knowledge modules found in the PM-1 course (e.g., planning, budgeting, monitoring, and controlling). (See Methods of Procedure for more information on using portions of this exercise selectively to complement topics in PM-2).

Teaching objectives for this experiential exercise are as follows:

- Provide students with an opportunity to experience and develop the skills, in a relatively risk-free environment, required for project leadership by mirroring, as closely as possible, what it is like to manage a project in the “real world.”
- Enable students to see connections between theory and practice of project management by aligning course readings and cases with stages in the development of project teams in order to accelerate and facilitate learning.

Instructor Note: Throughout this resource, notes to instructors are labeled and shown in italics, like this one.

Contents of this document are as follows:

- Overall description of the project
- Teaching objectives
- Student learning outcomes
- Suggested project grading approach
- Methods of procedure
- Perspective on outcomes

In addition, the project Appendices contain the following resources:

- Section A: Suggested project time line and suggested resources
- Section B: Citations/sources for suggested resources
- Section C: Interview questions for project managers
- Section D: Project plan guidelines and format
• Section E: Suggested ground rules for projects
• Section F: Instructions for final project written and oral deliverables
• Section G: Example “expectations” letters
• Section H: Example team assessment and feedback instruments

Overall Description of the Project

Projects have been conceptualized as temporary organizations. This exercise creates a semester-long experiential project that complements the conceptual content of project management courses emphasizing the behavioral competencies of project leadership, communication, and teams (PM-2). Alternatively, instructors can pick and choose articles or cases that complement their individual approach to course topics and student learning activities.

The knowledge and skills needed to perform successfully on this assignment relate to the following Behavioral Knowledge Modules: Project Team Building and Motivating (B-TB); Project Leadership (B-PL); Plan, Distribute, and Manage Project Communications (B-DC); Project Organization and Context (B-OC); Identifying and Engaging Stakeholders (B-SE); and Ethics and Professionalism (B-EP). Although not the primary focus of this project, students will also gain experience and skills in one or more of the Technical Knowledge Modules (e.g., project planning and integration, project resource management, estimating costs, project scheduling, risk management, and budgeting).

The primary objective of this exercise is to enable students and project team members to develop a clearer understanding of the behaviors needed to be an effective project manager, taking into account current research and practice, their own strengths and weaknesses, and career goals. Understanding the behavioral competencies needed for success in organizations is critical to the success of every project manager. Successful project management requires the project manager to learn and hone both knowledge and skills, like carpentry, accounting, or tennis. Unlike carpentry and accounting, however, project managers practice in the context of other people. So, becoming proficient as a project manager requires what are known as “people skills” or alternatively, “soft skills.” These include leadership and management of the project team—its formation, development and closeout, motivation, effective listening, communication, and decision making. In addition, the project manager must understand the formal and informal roles and structure of teams and be aware of and sensitive to varied perspectives that arise from diverse disciplinary and cultural backgrounds—both within the team and among stakeholders. In dynamic and complex environments, project managers must be skilled at anticipating and adapting to change. Most practicing project managers will tell you that they work every day to expand and enhance those skills.

This exercise entails the creation, staffing, development, and management of a temporary profit-making organization (the “project”) with the goal of donating those profits to a nonprofit organization chosen by the project team members. A competitive process is used to select project managers, who then select members of their project teams—these teams work together for the entire semester and, in addition to executing a project plan, produce both a written and oral report that details the project team’s performance and analyzes the team’s processes and behaviors using what they have learned in the course. The project provides students with opportunities to explore and experience the choices, decisions, and challenges faced by project managers and teams in the course of their daily activities over an extended period of time.
Instructor Note: It is not uncommon for students to underestimate their own skill levels in effectively leading or working with colleagues. It can be useful to point out that this assignment provides a “safe” environment in which to increase both their knowledge of behaviors needed to be successful project managers and to gain a realistic assessment of their own skill levels so that they can identify areas of strength as well as areas in need of improvement.

Instructors should be familiar with relevant theories of organizational behavior, especially those concerned with team management, communication, decision making, leadership, and conflict management. Suggested readings and cases have all been well-received by students and can be used selectively by instructors to meet the specific goals of their courses. The project is designed so that students do the majority of project-related work outside of class, although class time is needed for introduction of the project, team launch, and final presentations. Instructors who incorporate the semester-long project assignment will need to schedule regular meetings with project teams throughout the semester to monitor progress.

Please refer to Section A for a suggested time line and Section B for a detailed list of citations and sources for all suggested readings and cases. Sections C through H contain additional guidelines and examples for implementing this exercise.

Student learning outcomes:

At the conclusion of this experiential project, students will demonstrate the essential knowledge and behavioral skills needed to lead a project or to be an effective project team member; specifically, the student will be able to:

- Communicate effectively to project team members and other stakeholders using appropriate tools and methods.
- Demonstrate the leadership skills necessary for effective project management.
- Explain the stages of team development and how and why decisions about team structure, process, roles, and managing conflict impact team member motivation, cohesion, and project success.
- Show sensitivity to and appreciate the value of perspectives arising from multiple disciplines and cultural backgrounds.
- Recognize and respond to ethically challenging situations in an ethically defensible and professional manner.
- Evaluate and reflect on personal strengths and weaknesses as a project manager and develop a plan for continuous improvement.

Instructor Note: Learning outcomes can be modified to reflect goals of the course and instructor.
Suggested approach to project grading:

Evaluation and grading of the project should include peer assessment. As it is a semester-long assignment, the value of the project should be a significant component of the course grade—25% to 40%.

One approach to grading is as follows; weights can be modified according to the instructor’s preference and learning goals:

<table>
<thead>
<tr>
<th>Project Goals and Plan</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Performance</td>
<td>10%</td>
</tr>
<tr>
<td>Peer Evaluation</td>
<td>5%</td>
</tr>
<tr>
<td>Final Project Written Report</td>
<td>10%</td>
</tr>
<tr>
<td>Final Project Oral Presentation</td>
<td>5%</td>
</tr>
</tbody>
</table>

Instructor Note: Above total should typically equal 25%-40% of overall course grade for this activity.

Methods of Procedure

The project assignment described in this teaching resource is a semester-long activity, and as a significant portion of the student’s grade, it should be referenced in the course syllabus and introduced to students during the first class meeting. The project works best when teams consist of five to seven students and the project schedule allows for the full semester (e.g., 12 to 15 weeks). It can be used in small classes (15 to 20 students) or larger classes, although the investment of time and effort by the instructor is more demanding as the number of student project teams increases. Key project dates and activities should be listed as part of the course schedule.

Instructors who choose not to implement the semester-long project can selectively use the resources in this document to supplement particular topics in their course. Examples of this a-la-carte approach include (but are not limited to):

- If several weeks are devoted to teams, the readings and Army Crew Team case (suggested in the project time line) and/or the instruments in Section H can be used. Students might be asked to gather data from a team to which they belong to assess the degree to which that team’s members see the team as effective.

- An in-class active listening exercise as part of a broader discussion of communication can reinforce that becoming an active listener is much more difficult than most people think.

- The realistic dilemma described in the Henry Tam and MGI case, along with suggested readings about organizational culture, can be used to stimulate discussions about diversity and culture as important influences on project team effectiveness.

Introducing the project

During the first meeting, the project and its purpose should be introduced to students. Key elements of the introduction should include:

- This project simulates a real project in that it is temporary, time-limited, and will operate under constraints as specified by the instructor. Project teams will develop a project charter, meet milestone dates established by the instructor, meet on a
regular (weekly/biweekly) basis with the instructor to review progress and discuss issues, and submit a final written and oral report that summarizes project performance and analyzes the team’s process and lessons learned.

- Design of the course supports success in the project in that the schedule of course topics, readings, and cases parallels the challenges that teams are likely to face as they launch, develop, and terminate over the course of the project—thus, as students gain knowledge and skills, they can apply what they have learned to their project.

- Project teams must develop and execute a plan that generates profits (defined as more revenue than costs) by selling a product or service or holding an event. Profits must be donated to a nonprofit organization; however, it is up to the project teams to decide what nonprofit organization will be their beneficiary and to determine, by mutual agreement, the extent to which the beneficiary organization will be involved in the project.

_Instructor Note:_ The requirement that project team “profits” be donated to a nonprofit organization has several advantages: 1) it enhances the motivation of team members to be successful if there is commitment to supporting an important cause, and 2) it immediately engages an important stakeholder with a significant interest in the success of the project, and thus the project team.

**Project Team Formation and Launch**

Explain the procedures that will lead to project team formation and launch as follows:

- All students must submit a résumé and cover letter that indicates whether they are applying for a Project Manager (PM) or Project Team Member (PTM) position. Applications should be due no later than the end of the first week of classes.

- Explain that PMs will be selected based on qualifications, experience, enthusiasm, and the quality of their résumés and cover letters. All PM applicants will be interviewed by the instructor, with final selections announced (ideally) before the end of the second week of classes.

_Instructor Note:_ Suggested PM interview questions are listed in Section C.

- All PMs and prospective PTMs post “expectations” letters online using the university’s course learning management system (e.g., Canvas, Blackboard, or similar) prior to the beginning of the third week of class. Expectations letters provide a brief statement of what individual PMs or PTMs expect from their team members and what they expect to contribute to the project.

- All students deliver a 60-second “elevator speech” that summarizes their expectations letter during class (early in the third week).

- PMs will staff out their organizations based on PTM résumés, expectations letters, and elevator speeches. PMs determine the method for team staffing. PMs communicate to their team members and to the instructor.

- Project teams meet before the end of the third week.

- Project plan and performance expectations due before the end of the fourth week.
Additional resources to support the instructor’s use of this assignment are described in the various sections, which begin on the next page.

**Instructor Note:**

Section A contains a suggested and detailed time line as well as suitable readings and cases that are appropriate to the course topics and the project. It is important to point out that the sequence of topics on the suggested time line is based on the likely needs of project teams as they launch and encounter challenges. This sequence may be different from that often found in textbooks. Instructors can choose to modify this sequence according to their own goals and experience.

Section B provides an alphabetical list of every resource mentioned in this document as well as some additional resources to consider.

Section C describes suggested interview questions for project managers.

Section D provides suggested project plan guidelines and format.

Section E describes suggested project ground rules to guide project teams as they begin to formulate ideas. It is important to communicate these ground rules (which may need to be modified depending on the specific context of the college or university) to project teams.

Section F presents instructions for final written and oral deliverables.

Section G includes example “expectations” letters for project managers and prospective project team members. Since students will evaluate each other using the project team’s performance criteria, one of the first tasks for project teams is to establish performance expectations. Teams should be permitted to establish their own performance criteria; however, all team members must agree to the final criteria and a copy of those criteria should be submitted to the instructor. At the end of the semester, peer evaluations will be provided by each student using their team’s own performance criteria. This exercise is a good opportunity for teams to experience the challenges associated with determining the number and specificity of performance criteria, and to grasp the importance of evaluating performance in terms of behaviors rather than personal characteristics.

Section H includes three different team assessment/feedback instruments to assist project teams in a discussion of team effectiveness.
Section A: Suggested Project/Course Time Line and Resources

Instructor Note: Suggested readings, cases, and other resources are listed after the time line. These resources have been successfully used to teach the related topic; however, instructors should select those that best align with their learning goals from each set. Of course, instructors are free to select other resources that suit their goals and preferences.

Refer to Section B for citations or other details about how to access the articles and cases contained in the time line.

Week 1/Class 1 Introduce project and its purpose to students and describe project team formation as the first activity.

End of Week 1 Deadline to accept hard copy applications for Project Managers (one per team). PMs will be selected based on qualifications, experience, enthusiasm, and the quality of their résumés and cover letters. PMs will staff out their organizations from the remaining resumes. Refer students to the ground rules for the project.

Students not applying for the PM position submit hard copy current résumés and cover letters indicating how they will be effective in the role of a project team member and highlighting areas of strength/interest (e.g., marketing, finance, etc.).

Week 2 (out of class) Project Manager interviews with instructor (suggested questions included in Section C)

Project Managers announced; PMs and prospective team members post expectations statements on discussion board of course management system (Blackboard, Canvas, etc.) prior to next class.

Week 3 (in class) Elevator speeches in class (all PMs and prospective team members).

Launching a successful team. Team charters, performance expectations, and business plans

Week 3 (out of class) PMs meet to determine process for team selection (instructor to provide resumes and cover letters to PMs).

PMs notify selected team members and meet out of class.

Week 4 Creativity and project leadership

1st team deliverable due: Team charters and performance expectations

Week 5 Communication and active listening as a learned skill

Week 6 Decision making

2nd team deliverable due: Written and oral team business plans (present to instructor only)
Week 7  Conflict and negotiation  
Week 8  Motivation and managing performance  
Week 9  Culture and organizational change  
Week 10 Leadership and managing in difficult circumstances  
Week 11 Values and ethical decisions  

**Instructor Note: Suggested Readings**

*Suggested readings for Week 3:*

- The success of the project teams depends on students recognizing that the “launch” stage is critical. Suggested readings for this topic include the following:
  - Leading Teams (Harvard Core Curriculum Reading)—a useful reference that presents foundation concepts about teams
  - Leading From Any Chair—chapter in the book The Art of Possibility about how and why formal leaders must recognize that any member of an organization can not only lead but assist the formal leader in achieving goals
  - Case: The Army Crew Team—a wonderful case (that students love) about the junior varsity, varsity, and coach of the West Point crew program

*Suggested readings for Week 4:*

- How to Kill Creativity—outlines the missteps that often block creativity in organizations
- The Best Advice I Ever Got—summaries of interviews with CEOs about the advice they got early in their careers

*Suggested readings for Week 5:*

- Active Listening (HBSP 2001)—provides a useful reference on the theory and practice of active listening as a critical communication skill
- Learning to Listen: Guided Practice for Business Students—guidelines for a class exercise
- Optimizing Millennials’ Communication Styles—describes the ways in which younger students and employees (Millennials) communicate
Suggested readings for Week 6:

- *What You Don’t Know About Making Decisions*—describes advocacy and inquiry as two contrasting approaches to decision making, provides examples of each and offers practical advice to managers
- *The Hidden Traps of Decision Making*—summarizes the most common biases that can get in the way of effective decisions
- *Using Advocacy and Inquiry to Improve the Thinking Process of Future Managers*—a teaching-focused article that expands on the concepts of advocacy and inquiry to improve decision making

Suggested activities and readings for Week 7:

- *How Management Teams Can Have a Good Fight*—provides guidelines for using conflict to improve team function and performance
- *Case: Teamwork Turmoil*—explores the importance of setting group norms, shared decision making, information sharing, and recognizing team dysfunction; allows students to understand how to lead a team through a conflict situation
- *At this point in the project team’s life, it can be useful to have team members assess the effectiveness of the team’s performance and team member satisfaction using a team assessment instrument.* Section H describes three different instrument that fits this purpose; however, many alternative instruments are available.

Suggested readings for Week 8:

- *What Makes a Leader?*—outlines the elements of emotional intelligence
- *One of the team feedback exercises in Section H relates to Goleman’s article and can be used to facilitate a conversation among team members about emotional quotient.*
- *Let’s Hear it for B Players*—points out that all organizations need both “A” and “B” players to succeed and offers advice for managing B players

Suggested readings for Week 9:

- *Managing Multicultural Teams*—useful as a stand-alone reading to discuss culture and increasing diversity of organizations
- *Six Levers for Managing Organizational Culture*—reviews the essential concepts associated with organizational culture and offers advice for managing culture

Suggested readings for Week 10:

- *I’m the Boss! Don’t Depend on Formal Authority*—reference note on power and managers’ need to recognize that legitimate power is not the only kind of power
- *Should This Team Be Saved?*—the story of a highly successful team that encounters problems
• Columbia’s Final Mission: A Multimedia Case—investigates the causes of a large-scale failure, ambiguous threats, and dissent within teams in a retrospective analysis of this NASA accident

Suggested reading for Week 11:

• Moral Voice: Talking About Ethics at Work—background note on ethics in the workplace
Section B: Citations/Sources for Experiential Learning Activity

*Items preceded by * are listed as suggested resources in Section A

ABC News. (February 9, 1999). *The deep dive: One company’s secret weapon for innovation.* Retrieved from https://www.youtube.com/watch?v=M66ZU2PC1cM


Teteak, J. (September 18, 2013). Give a TED talk everywhere you go. Rule the Room Public Speaking. Retrieved from https://www.youtube.com/watch?v=5h7DeGQLxk0


Section C: Suggested Interview Questions for Project Managers

1. Why do you want to be a Project Manager?

2. Describe a time when you had to take charge—what happened, what did you learn, and what would you do differently if you had to do it over again?

3. It’s the end of the semester; what will your teammates tell me about you as a Project Manager—your management style, your effectiveness, and so on? What will they say surprised them about you as a project manager? A leader?

4. Is a quick but ultimately flawed decision better than no decision at all? Explain your position.

5. Describe a time when you were faced with a decision that tested your values and tell me about that decision.

6. Tell me about a time when you moved from a peer to a leader.

7. Describe a time when you believe that you failed. How did you respond?

8. How will you choose your teammates?

9. What will happen at the first meeting of your new project team?
Section D: Project Planning Guidelines

The project plan represents the blueprint for this semester project. It is where the project’s mission and structure are clarified, and where the scope, stakeholders, and resource requirements (monetary and other) of the project are described. The audience is the course instructor and any other stakeholder that has an interest in your project (e.g., student life, potential investors, etc.). The project plan must answer the following questions:

- What is the name of your project?
- What is the purpose (mission) of your project, team members’ roles, and your team’s values?
- What service or product does your project provide and what needs does it fill—that is, what value are you providing?
- Who are your project’s stakeholders, what is the value proposition for each of them?
- How will you market the value your project provides to your stakeholders?
- What milestones have you established to track progress in the project?
- What potential risks have you identified? How do you plan to mitigate these risks?
- What are your financial assumptions and projections?
- What will be your project team’s policies and procedures?

Format

This is a professional document and should be written accordingly. Include a cover letter to the instructor that introduces the project and briefly summarizes the project plan. Submit an electronic copy of the complete project plan by the deadline. Prepare a 10-minute oral overview of the plan to be delivered at the time and place specified. Write concisely—say what is needed to get the main points across to your audience. Avoid wordiness, use attachments or appendices whenever appropriate, use headings and bullets to highlight important points and improve the visual appeal of the plan. Proofread carefully so that it is free of all grammar, spelling, and other errors.

Discuss all the required topics—nothing hurts credibility more than submitting an incomplete document (except maybe sloppy writing and technical errors). Finally, make sure that the project plan is written in “one voice”—this means that even though different people write different sections of the plan, it must be reviewed and edited so that it appears written by one person and it flows logically from topic to topic (use transition sentences, include a table of contents, number your appendices, etc.).
Section E: Ground Rules for Project Teams

1. They must be legal and comply with external regulations (e.g., games of small chance, solicitation, etc.). Projects must also conform to all university policies and any and all campus procedures must be followed to obtain approval for use of facilities, sponsorship of events, and so forth, including campus advertising policy, responsible use of campus resources, policies on solicitation and ticket selling, procedures for documenting donations and costs, and compliance with external laws and regulations (e.g., games of small chance).

2. The projects are NOT fund-raising activities (although “profits” earned are donated to a nonprofit organization). They must be substantive (i.e., several steps above a sorority or fraternity car wash). Teams must engage in a project that can be accomplished in a semester (actually a little less), and that requires activities such as designing, organizing, marketing, advertising, accounting, and so forth. One way to think about events is to set a goal that your event is a “first annual,” with hopes that it is so successful that it’s adopted by a university organization. The most successful projects are those that have constituencies and thus a basis for support—if you provide value to your stakeholders by meeting a need then you will increase your likelihood of success.

3. Projects must engage all members of the team. Projects always entail the risk of “free riders,” and this project is no exception. Each group will, however, be responsible for developing an internal methodology for evaluating the contribution of individual group members. This evaluation will figure importantly in the peer assessment component of each student’s final grade.

4. Seed money: Experience shows that students tend to regard the projects more seriously if they have some “skin” in the game. Therefore, students will be required to fund their efforts by lending start-up money, if needed, to their project. If contributions are required, they should come from all participants equally. After the semester, all investors are to be paid back their investment out of the profits. Any residual profits should be contributed to charities chosen by the project team.

5. Accurate records should be kept of income and expenditures. You will be required at the end of the semester to show evidence that the profits earned have, in fact, been contributed to the designated nonprofit entity. This can be in the form of an official receipt, letter from the charity, or canceled check. All teams must establish internal financial management control procedures that include, at a minimum, the requirement for two signatures on any financial transfers or withdrawals.

6. At the conclusion of the semester, the books will be audited and the project organization showing the greatest profit will be awarded a prize. Creativity is not regarded as a virtue in accounting.
7. Students will note that a substantial component of the course grade depends on performance. Performance in the real world is almost solely dependent on financial outcomes. Even though this course is intended to mirror the real world, an exception will be made here in that other factors will be considered in the evaluation of this component. The ambitiousness of the project, effectiveness of the project team in working together, adroitness in handling the inevitable unexpected crises, and strength in planning and time management are among the considerations that will be weighed along with financial performance.
Section F: Final Project Written and Oral Reports

Final project written reports will be due on the date specified and submitted (in hard copy and/or electronically). Guidelines for content and format of these reports are as follows:

- **Part 1: Performance Summary**
  - Think of this section of the report as a “Letter to Stakeholders”—it reports the “facts”: What was the project’s purpose (mission), what were the original goals (qualitative and quantitative), and were these goals achieved? Provide a summary report of the project’s financial performance as well as performance on other appropriate metrics. Did unanticipated events lead to changes in goals or activities, and how did these factors influence performance? Don’t forget to refer to the original project plan—there should be clear connections between the two documents!

- **Part 2: Lessons Learned**
  - This section of the report must answer the following questions:
    - What factors explain the project team’s performance?
    - What would the project team do differently (and why) if it were to start again? What advice and lessons can future project teams in this course learn? Why?
    - What key insights about project management and leadership emerge from an analysis of this experience?
  - The focus in this section should be on integrating the project team’s experiences with significant management and organizational behavior concepts. The final report should not attempt to talk about “everything under the sun”! Think about what is most important and what’s less important. Make decisions about what should be included in this analysis, and what should be left out. Above all, remember that transparency and specificity make for a more substantial and meaningful analysis.
  - Use examples from the project and from the readings/cases to illustrate and support all conceptual or theory-based claims. Avoid simply describing events/experiences without making a connection to theory. Examples should be meaningful and substantive, and it should be clear to the reader how they illustrate the link between theory and practice—make specific references to relevant readings.

- **Part 3: Supporting Documents**
  - This section of the report should contain any relevant supporting documents such as financial statements and other appropriate materials.

**Format:** Use a cover memo, addressed to the professor, to communicate the purpose of the report and provide an “Executive Summary” of that report. All project team members must sign the memo. Use standard professional form for this memo and the report (i.e., single space paragraphs, double space between paragraphs). Use headings/subheadings where appropriate to
separate ideas and increase readability. Font size must not be smaller than 12 and margins should be 1” all around. Make sure that the report is written in “one voice.” Do not attempt to “patch” sections together at the last minute! Write a report that is concise, coherent, and clear—allow adequate time to accomplish this standard of quality; work together as a team! Do not ask how long or short your team report should be—the project team should make this decision based on the report’s content (HINT: A team report of 1 or 2 pages—excluding the cover memo—is likely too short and reports that exceed 5 pages are likely too long).

A word to the wise project managers: Do not make the mistake of assuming that these reports can be written in one or even two sessions. Expect to go through a process of drafting, revision, and discussion—and yes, even conflict. Allow enough time to make clear-minded choices about WHAT to say in the report and still have sufficient time to WRITE a report that is concise, clear, and coherent. It is much more challenging to write a compelling brief report than it is to write a lengthy detailed report—make critical choices about what to include, as well as how to convey the message succinctly but persuasively.

Project Oral Reports

Each project team will present an oral report to the rest of the class during the scheduled period. The project team oral report provides an opportunity to share experiences and lessons learned with the other project teams. Communicate the contents of the written report orally—but think carefully about the most effective manner to do this. Tell an interesting story and remember that oral presentations are typically not “boiled down” versions of a written report! Refer to the instructions for the final written report for guidance on the content of the oral report.

Use PowerPoint (or equivalent software, e.g., Prezi) and other techniques if appropriate. All team members must actively participate in the oral presentation! The goal should be to engage the class and deliver a memorable presentation that leads to learning. Presentations should last NO LONGER than 20 minutes, with 5 to 10 additional minutes for questions.

Instructor Note:

- Guidance of project teams is essential as they reach the final report stage of the assignment. Remind the students that, as Ralph Waldo Emerson said: “The reward of a thing well done, is to have done it.”
- Useful references for presentation skills are listed in Section B.
- Emphasize that unlike a project team final report in a “real” organization, this report should be both descriptive and reflective. The weight of the project team’s performance outcomes in quantitative terms must be considered; however, more important is the critical thinking that leads to crucial insights about how and why a project team succeeds or fails on the basis of behavioral competencies.
- Students should be reminded that bringing closure to a project is important and publicly reporting accomplishments should be a celebration of achievements. Provide these questions to teams to assist them in reflecting on the knowledge and skills gained through this project assignment:
  - What qualities make your team special? What really stands out in your mind about your team? What makes your team distinct and memorable?
  - Now think more specifically about your project team’s development:
    - What important things happened as your project team formed? What were the key moments in the development of your team—did you go through the
predicted stages of team development or not (did you get stuck at any point)?

- What factors led to your success (or lack of success)?
- What advice would you give to a new project team about how to launch successfully?
- How could you replicate your project team’s successes in the future—that is, what would you do over again and why?
- How could you have avoided the challenges your project team faced—that is, what would you do differently and why?
- What connections can you make between your project team’s experiences and the management concepts and skills we’ve discussed this semester? What “lessons” emerge from a careful analysis of your experience and reflection on management concepts?
- What kinds of evidence and reasons can you present to support the claims you make about what you learned and the advice you would give to other teams?
Section G: Example Expectations Letters Between Project Managers and Team Members:

As a Project Manager, I am really looking forward to assembling a team of hard-working individuals, each with different talents. I plan to select members who I feel will work well together so that we can be as successful as possible. My ideal project team member is dedicated and focused on the tasks set before them. When assigned a task, I expect that it will be done efficiently and to the best of their ability. I am also looking for team members who put the best interest of the team and project ahead of their own personal interests. Another key aspect that I am looking for is good communication skills. This is crucial for two different reasons. First, I feel that it will help us significantly when organizing the project and getting in touch with people outside of our group. And secondly, for our team to be effective, we need to be comfortable communicating with each other. If any troubles arise, I do not want someone who will hesitate to ask for help when in need.

My expectations for this course project involve all members of the team. I expect each member to participate and offer fresh ideas. Each member should be prepared to bring whatever skills they possess to the team in order to create a quality final product. As a team member, I will contribute whatever is necessary to achieve the goals and objectives set by the team, and I am willing to put in any amount of time and effort to produce and execute any plans decided upon by the team. I plan to offer my own opinions, as well as provide feedback and speak my mind about the ideas of others. I plan to work well with my team members regardless of any differences that may arise, and I plan to work with an attitude of mutual respect. I expect my other team members to work diligently and efficiently to meet deadlines and carry out their responsibilities. I hope that each member is as dedicated and committed to the project and its quality as I will be.

As a project team member, I expect the project manager to be willing and able to organize a hard-working team, delegate according to the strengths of the team, and efficiently facilitate throughout the course of the project. I also expect the PM to ensure that responsibilities and deadlines are being met, and to motivate the team to do their best work possible. I hope that the PM is able to trust in the abilities of his or her teammates and allows them to handle the tasks presented to them. I also expect the PM to be a thoughtful, rational, and reasonable decision maker. Lastly, I expect the PM to play an equal role within the group, someone who is willing to do just as much work as other team members, and who is more of an organizer and facilitator rather than the overall leader of the group.

I feel that if all these expectations are met, any team will be more than capable of meeting and exceeding the project requirements, and will excel among the other teams.
Section H: Example Team Assessment and Feedback Instruments

TEAM DEVELOPMENT: The Hard Work of Being a Soft Team Member

This exercise should help you assess the effectiveness of your team thus far in regard to:

- Achievement of your goals for your business
- Satisfaction and commitment of team members

Working alone, each team member should complete the following questionnaire on team development. The feedback you provide to one another will help you make any necessary changes in how you are functioning as a team. Use your feedback session today to identify strengths and weaknesses in your individual and team performance and to formulate strategies for improvement.

Climate Scales

1. The degree to which my team shows enthusiasm and spirit:

<table>
<thead>
<tr>
<th>Not much enthusiasm</th>
<th>Highly enthusiastic</th>
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<tr>
<td>0 1 2 3 4 5 6 7 8 9</td>
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*Circle one*

2. On humor, I would rate my team:

<table>
<thead>
<tr>
<th>None</th>
<th>Not bad</th>
<th>Funny</th>
<th>Outrageous</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9</td>
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</table>

*Circle one*

3. My team is:

a. _______ Mostly task-oriented
b. _______ More task-oriented than social
c. _______ Equally task and social in orientation
d. _______ More social than task-oriented
e. _______ Mostly social
People Scales (How we regard one another as human beings)

4. The degree to which we are interested in one another as people is:

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
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Circle one

5. Our regard for each individual as a resource (knowledge, skills, abilities, viewpoints) for group goal achievement is:

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
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Circle one

Productivity Scales (Goals, work accomplishments, commitment)

6. Team’s task achievement goals:

<table>
<thead>
<tr>
<th>Don’t care</th>
<th>Do acceptable work</th>
<th>Do excellent work</th>
<th>Want to be the best</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
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<tr>
<td>4</td>
<td>5</td>
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<tr>
<td>8</td>
<td>9</td>
<td>0</td>
<td>1</td>
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</table>

Circle one

7. Actual quantity of work produced thus far:

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<tr>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
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<td>7</td>
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Circle one

8. Quality of work produced thus far:

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<th>Low</th>
<th>High</th>
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9. Interest in learning:

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<tr>
<th>Low</th>
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Process Scales (Participation and commitment)

10. The level of participation in my team can best be described as:
   a. _______ 1 – 2 members contribute the most
   b. _______ 2 – 3 members contribute regularly
   c. _______ 3 – 4 members contribute regularly
   d. _______ 4 – 5 members contribute regularly
   e. _______ All 6 members contribute regularly

11. Input from all members is sought before any decisions are made:
   _____ Never _____ Sometimes _____ Often _____ Always

12. Where my team falls on the “handling conflict” scale:

   We avoid conflict or smooth it over
   Expressions of conflict are seen as contributing to problem solving

   0 1 2 3 4 5 6 7 8 9

   Circle one

13. Openness in communication among my team members:

   People appear to be holding back
   People feel free to express their views

   0 1 2 3 4 5 6 7 8 9

   Circle one

14. Expression of personal feelings:

   Expressed in a socially acceptable way
   Expressed in a way not acceptable to the team

   0 1 2 3 4 5 6 7 8 9

   Circle one
15. Degree to which we listen and hear each other’s views:

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<thead>
<tr>
<th></th>
<th>Low</th>
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<td><strong>High</strong></td>
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**Measures of Project Team Effectiveness (and Ineffectiveness)**

_Instructor Note: This approach to assessing team effectiveness differs from the previous one above in that it presents desirable and undesirable team characteristics and asks team members to think strategically about how to sustain or improve characteristics associated with high-performing teams, and to identify strategies to respond and correct behaviors associated with ineffective teams._

The presence of the following characteristics indicates a team is more likely to be effective. Identify specific strategies that are helping you or can help you to be an effective project team:

<table>
<thead>
<tr>
<th>Characteristic (according to theory) of a high-performing team</th>
<th>Your project team</th>
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<tbody>
<tr>
<td>Small size (&lt; 10 members)</td>
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<tr>
<td>Performance focus:</td>
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<tr>
<td>- Commitment to a common purpose and goals</td>
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<tr>
<td>- Commitment to a common understanding of how members will work together</td>
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<tr>
<td>- Agreement on specific and measurable goals</td>
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<tr>
<td>- Feedback</td>
<td></td>
</tr>
<tr>
<td>Characteristic (according to theory) of a high-performing team</td>
<td>Your project team</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Contribution of all members/member skills:</td>
<td></td>
</tr>
<tr>
<td>• Careful selection of members</td>
<td></td>
</tr>
<tr>
<td>• Willingness to work together, comfortable with ambiguity, diverse backgrounds/skills</td>
<td></td>
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<tr>
<td>• Technical expertise for task—competence</td>
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<tr>
<td>• Problem-solving and decision-making skills</td>
<td></td>
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<tr>
<td>• Interpersonal skills</td>
<td></td>
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<tr>
<td>• Training to develop skills that are deficient</td>
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<tr>
<td>Positive Norms:</td>
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<tr>
<td>• That support process (e.g., openness, honesty)</td>
<td></td>
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<tr>
<td>• That support performance</td>
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<tr>
<td>• That support mutual accountability</td>
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<tr>
<td>Roles:</td>
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<tr>
<td>• Task roles are fulfilled</td>
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<tr>
<td>• Maintenance roles are fulfilled</td>
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<tr>
<td>Ability to manage conflict:</td>
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<tr>
<td>• Collaborating style to resolve conflicts</td>
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<tr>
<td>Ability to make effective decisions:</td>
<td></td>
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<tr>
<td>• Stimulate task conflict</td>
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<tr>
<td>• Use consensus with qualification</td>
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<tr>
<td>Effective leadership (formal and informal):</td>
<td></td>
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<tr>
<td>• Accessible to team members</td>
<td></td>
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<tr>
<td>• Solicits input on decisions/ issues</td>
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<tr>
<td>• Admits weaknesses and mistakes</td>
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</tbody>
</table>
You must also watch for indicators of ineffectiveness, and if present, formulate strategies to respond:

<table>
<thead>
<tr>
<th>Characteristic of an ineffective team</th>
<th>Your project team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of common purpose</td>
<td></td>
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<tr>
<td>Lack of or insufficient training in necessary skills in members</td>
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<tr>
<td>Lack of management support</td>
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<tr>
<td>Not empowered to act independently</td>
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<tr>
<td>Goal displacement or ambiguous goals; individual goals more important than team goals</td>
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<tr>
<td>Cohesion but low-performance norms</td>
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<tr>
<td>Missing roles—either task or maintenance</td>
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<tr>
<td>Social loafing/free riding</td>
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<tr>
<td>Negative norms</td>
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<tr>
<td>Lack of feedback (within the group and from external sources)</td>
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</tbody>
</table>
Team Feedback: Applying Emotional Intelligence

_Instructor Note:_ This exercise requires project team members to use Goleman’s *What Makes a Leader?* article as the basis for providing feedback on the dimensions of Goleman’s emotional intelligence framework to peers. The following text has been used to introduce the assignment to students:

Now that we have enough experience working with each other, it’s time to practice giving and receiving performance feedback. This exercise will focus on your project team’s development and behaviors to help you move through the remaining challenging weeks of the semester and get you thinking about your peer evaluations of your teammates. More important than either of those functions is that you will have the chance to discuss, as a team, strategies to improve your project team’s functioning and performance on the project.

The second phase of this exercise will occur outside of class (team members must meet before the [stated deadline]). You should allow at least ONE HOUR for this meeting. You will focus on feedback from your teammates about your emotional intelligence. Goleman argues (and his work is widely accepted today) that IQ and technical skills are “threshold capabilities” because they are the entry-level requirements for executive positions; however, without emotional intelligence, an individual will not make a great leader!

_Here is what you need to do BEFORE the class when the first phase of the exercise will take place:_

1. Read Goleman’s *What Makes a Leader?* and then read it again. After your second reading, dissect the article to identify specific characteristics that are associated with the five dimensions of emotional intelligence. Here is an example:

   a. **Self-awareness:**
      i. Neither overly critical or unrealistically hopeful—they are honest with themselves and others
      ii. Frank in admitting to failure
      iii. At ease talking about their limitations and strengths
      iv. Seek constructive criticism
      v. And others (see Goleman’s article to identify more characteristics associated with self-aware people)

2. Think about each of your teammates’ performance over the course of the semester in terms of their emotional intelligence strengths and weaknesses. Develop a list for each person on your team using a table format like the one shown below. Focus on the most salient strengths and weaknesses in each category. Refer to the list of characteristics you prepared in #1 above. Prepare and print a SEPARATE page for each of your teammates, since you will be giving your feedback (in writing) directly to each person. You should keep these individual feedback forms until your team feedback meeting outside of class.
YOUR NAME: ___________________

PERSON RECEIVING FEEDBACK: __________________

<table>
<thead>
<tr>
<th>Emotional Intelligence Dimension</th>
<th>Areas of Strength</th>
<th>Areas of Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Regulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td></td>
<td></td>
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<tr>
<td>Social Skills</td>
<td></td>
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</tr>
</tbody>
</table>

Instructions for your project team meeting (outside of class):

- Distribute your feedback forms to the appropriate individuals.
- Allow everyone time to read their feedback forms.
- Using a “round robin” format, take about 5–10 minutes for each person to react generally to the feedback (e.g., do they believe it’s accurate, are there common themes, what surprised them, etc.). Then, identify one or two elements of emotional intelligence that your teammates identify as an “area of weakness” and talk with your fellow students to develop strategies to improve your skill in this area.
- As a team, discuss this feedback process. What did you learn about yourself and each other as a result of this exercise? What strategies will you put into action to improve your individual and team performance in the remaining weeks of the semester? How will you know whether you have improved in an area of weakness?

Instructions for individual debriefing:

- Consider how the feedback you have received from other sources and how it fits (or doesn’t) with the feedback you now have from your teammates.
- Optional writing exercise: Write a memo to the instructor in which you share your identified area of weakness and the strategy (or strategies) you will use to improve your emotional intelligence in that area.
Appendix III-A-2: The Dreamliner Case Study

Leadership implications in complex projects: The Boeing Dreamliner and Jim McNerney

Note to Faculty: There is a teaching note available to faculty only for this case. To obtain the document, please request it directly from the PMITeach.org administrator at pmcurriculum@pmi.org on your school letterhead or send an email request with a URL pointer to your school webpage indicating your faculty status.

In defense of criticism of Boeing’s 787 production delays, CEO Jim McNerney explained:

We are trying to come up with the strongest set of partnerships we can with the people that supply our major systems and structures. In defense, we are trying to respond to the pressures of governments buying fewer things at lower prices, with less favorable contract terms. And that pressure cannot just stop at Boeing. We must find willing partners [to share the burden]. And on the commercial side, low-cost carriers and a very flattish global economy leads you to the same conclusion. So, the “no-fly list” is people who don’t want to play ball, who only want to hide behind the contractual language of their current programs. We’re going to give those who do want to work with us more business—or we’ll move some things in-house. This is a not a rape, pillage and plunder exercise. This is the reality we all face. The majority of [suppliers] are beginning to have productive discussions with us. We have some holdouts, people who take the position that the pressure should only be absorbed by Boeing, notwithstanding the fact that 65 percent of most of our airplanes are built by suppliers...we both must demand lots of productivity [improvements] to offset price pressure. Those that work with us in that way will find more volume. We are the biggest player. My message is, “Don’t bet against us.” (Anselmo, 2013).

The Boeing Dreamliner

Boeing Corporation was one of the world’s largest manufacturers of commercial aircraft, ranking 27th on the Fortune 500 list in 2016. When it announced the delivery of its first 787 Dreamliner transporter to its first customer, All Nippon Airways, in September 2011, it was almost 40 months later than originally planned, after a long series of unexpected delays. The actual development cost of the project had been estimated at about US$40 billion, but came in over twice the original estimate. One year later, a malfunction was discovered in one of the aircraft's lithium batteries, which caught fire after takeoff. These problems led to months of grounding, imposed by the FAA (Federal Aviation Administration), of the entire Dreamliner fleet already in service (Shenhar, Holzmann, Melamed, & Zhao, 2016).

The Dreamliner was designed to be a revolutionary project in terms of physical characteristics, technology, management style, financing, design and engineering management, quality assurance, and assembly processes. Many of these initiatives were intentionally taken on to benefit from new developments in aviation technology and to speed up design and development; however, they posed unexpected challenges for both the company and the project team.

A New Organizational Paradigm

Boeing adopted a new organizational paradigm for the development of Dreamliner and decided to outsource an unprecedented portion of the design, engineering, manufacturing, and production to a global network of 700 local and foreign suppliers. With more than 70% foreign development content, this decision turned Boeing’s traditional supply chain into a development chain. Tier-1 suppliers became responsible for the detailed design and manufacturing of 11 major subassemblies, while Boeing only did system integration and final assembly. Figure III-A-2-1 lists the project’s major subassemblies and their tier-1 suppliers.

Furthermore, Boeing came up with a new risk and revenue sharing contract with its suppliers, called the “build-to-performance” model (as differentiated from the more typical “build-to-spec” or “build-to-print” models). According to the model, contract suppliers bore the nonrecurring R&D cost up front, owned the intellectual property of their design, and got paid a share of the revenues from future aircraft sales. Table III-A-2-1 summarizes the key features of this model. Under this model, the suppliers’ roles were dramatically changed from mere subcontractors to strategic partners who had a long-term stake in the project. This model created some risks, which caused extensive integration problems and additional delays.
Finally, Boeing employed a new assembly method. Subcontractors were required to integrate their own subsystems and send their preassembled subsystems to a single final assembly site. The goal was to reduce Boeing's integration effort by leveraging subcontractors to do more work compared with previous projects. However, many of these subcontractors were not able to meet their delivery schedules due to lack of experience in subsystem design and integration as well as insufficient guidelines and training. Consequently, parts and assemblies, which were sent to Boeing for integration, were missing the appropriate documentation, including instructions for final assembly.

**Unanticipated Consequences**

Supply chain and design delays increased, as did Boeing’s financial losses, including penalties for late delivery of the aircraft. CEO McNerney had to face some hard facts based on earlier decisions. He acknowledged that his new paradigm may have been flawed, “We got a little bit seduced that it would all come together seamlessly and the same design rules would be applied everywhere in the world and corners wouldn’t be cut and financial realities wouldn’t hit certain folks” (Ostrower, 2013).

McNerney’s approach to workers, suppliers, and labor resources was notably off-putting, according to many in Washington State, Boeing’s corporate home. Since 2011, when Boeing opened its nonunionized South Carolina assembly plant, where salaries were approximately $10/hour less than those of the unionized workers in Washington State worker relationships have been troubled (Wilhellm, 2015). While admirers have touted his efficiency and ability to deliver profits, alienated professionals at every level, along with union members, have described McNerney as “cold-blooded.” One labor specialist stated, “A lot of employees feel top management doesn’t value them, treats them as expendable… [creating an atmosphere of] lowered trust, anger, and disgruntlement” (Gates, 2014). According to Richard Aboulafia, noted aerospace specialist:

<table>
<thead>
<tr>
<th>Scope</th>
<th>Contractual Arrangement/Responsibility</th>
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</thead>
<tbody>
<tr>
<td>System design and architecture</td>
<td>Boeing as main contractor</td>
</tr>
<tr>
<td>Detailed part design</td>
<td>Suppliers</td>
</tr>
<tr>
<td>Interface design</td>
<td>Boeing defines interfaces; suppliers provide detailed</td>
</tr>
<tr>
<td></td>
<td>designs, and Boeing serves as referee</td>
</tr>
<tr>
<td>Selecting and managing tier-2 suppliers</td>
<td>Tier-1 suppliers</td>
</tr>
<tr>
<td>Intellectual property</td>
<td>Owned by suppliers</td>
</tr>
<tr>
<td>Non-recurring development costs</td>
<td>Amortized costs paid by suppliers from 787 revenue</td>
</tr>
<tr>
<td>Time of payments to suppliers</td>
<td>When 787 is certified, and delivered to customers</td>
</tr>
</tbody>
</table>
Management believes if it continues to squeeze suppliers and labor, the problem[s] will be solved. Again, the track record here is not great. Most of the manufacturing world tell a very different story. Whether it’s with cars, aircraft or turbines, productivity improvements often come from the shop floor. That means convincing the people who build things to identify ways to reduce scrap, improve work flow and eliminate defects. To promote the kind of process improvements that happen in the factory, a work force needs incentives such as profit-sharing or other compensation. At the very least, machinists and engineers need to believe their work is valued. Taking away pensions at a time of record sales is simply a bad way to motivate workers to go the extra mile. Boeing right now embodies a strange combination of very good and very bad (Aboulafia, 2015).

McNerney’s management style created its own problems. He vacillated between maintaining his dispassionate, hands-off general management style with multiple-times per day meetings with executives during the Dreamliner grounding crisis. His revolving door policy for managers in charge of the 787 project (four in as many years) (Hymowitz, 2013) generated a sense of uncertainty at all levels in the company and increased pressure to meet goals quickly. This focus on urgency caused him to reflect, after having resolved the major problems in the Dreamliner, that the plane could have been completed sooner had Boeing listened more to the customer and less to innovative technology. He said, in a rare interview in 2014, “What I would like to have done is pursued 70 percent of the technology that still would have satisfied 95 percent of [customer desire]. It would have gotten to them quicker, and it would have cost us less…You get excited about these projects, and things creep into the design and you lose discipline sometimes. We just need to be reminded about that”(Anselmo, 2014).

As described by an anonymous former Boeing executive, “The sense I always got from him in meetings is that it could have been any business…If we’d been making cameras or autos or doing bond trading, it would have all been the same to him. The net effect is distancing from the people who come to work there every day, who bring their hearts and souls to it and want to make it more than a job” (Gates, 2014).
References
Ostrower, J., & Lublin, J. S; The two men behind the 787; http://www.wsj.com/articles/SB10001424127887324039504578260164279497602.
Appendix III-A-3: Ethics Scenario and Class Activity

Project Management and the Ethics of Deception: A Fictional Scenario Based on Volkswagen’s Emissions Scandal

**Note to Faculty**: There is a teaching note available to faculty only for this case. To obtain the document, please request it directly from the PMITeach.org administrator at pmcurriculum@pmi.org on your school letterhead or send an email request with a URL pointer to your school webpage indicating your faculty status.

**Part A: Fact**

CEO Martin Winterkorn proudly boasted about Volkswagen’s ambitious strategy in his 2011 speech launching a new plant in Chattanooga, Tennessee. VW, he proclaimed, was on the cusp of becoming the world’s largest automaker—a goal he intended to achieve under his leadership. To do this, growth in the U.S. market would be critical. He promised energy-efficient cars with high gas mileage—and committed to the kind of car the American driver demanded. VW would surpass Toyota and the others by creating safe, environmentally friendly cars without compromising on fuel efficiency, affordability, or performance. While other auto manufacturers focused on hybrids, VW would rely on its diesel design. America, he believed, was poised to provide the boost VW needed to dominate the car industry worldwide and especially the United States. And he put himself on record promising this achievement and committing to the actions to make this happen.

With about eleven million vehicles on the roads, VW’s diesel market globally was already huge. But less than five percent of these cars and trucks were sold in the United States. Winterkorn argued that this provided a key opportunity for increasing VW’s presence in the United States.

The U.S. Environmental Protection Agency (EPA), meanwhile, had ratcheted up its emission standards. What might have passed the tests at one time would not succeed now. The European Community was adopting similar standards, but lacked the capability for enforcement.

At the outset, it was clear to some members of VW’s executive team that what appeared to be the winning combination of factors were in conflict with one another. Volkswagen could not achieve one without compromising another. VW’s diesel car could not easily satisfy the regulators and the consumers. This would require some careful and creative efforts to fulfill the expectations that Winterkorn had publicly set in his vision for Volkswagen.

Winterkorn’s dream of world dominance did come true in the summer of 2015. The boost in the U.S. market had pushed VW into the status as the largest automaker in the world. But he would only have two months to enjoy this achievement before being forced to resign in one of the biggest scandals in automotive history.

**Part A: Fiction**

Stephen Musberg was exasperated. As chief of Volkswagen’s R&D unit within diesel operations, he oversaw the computerized systems installed in the new diesel cars that VW would be introducing into the American market. He was also responsible for addressing the emission standards the Environmental Protection Agency had set, and for ensuring that VW passed all regulatory requirements. He knew that diesels typically emit more air pollutants than conventional engines, and the cost of compensating for this would undermine company
objectives. He had a fundamental existential dilemma: The car he needed to produce could not comply with the conditions of both his CEO and the United States government.

How could Volkswagen fulfill its promise to provide better gas mileage and high performance yet still meet emissions standards? One solution would be to add expensive, complicated pollution-control systems. But this would impact the delivery schedule of the automobiles and drive the cost up and perhaps compromise the car’s performance. He worked through the arithmetic and found this could add about five thousand dollars to the price. Americans were not likely to embrace a higher price tag, a less powerful car, or a reduction in gas mileage. How could Winterkorn not have known this? He had led the R&D department at one time, and knows the science behind this. Perhaps he was thinking that because all car manufacturers, not just VW, had been getting away with higher nitrogen oxide (NOx) emissions in Europe for years, VW could initially ignore EPA technicalities and innovate in due course to comply with standards.

This posed a series of dilemmas for Stephen. The CEO had made it clear that the highest priority was a substantial increase in U.S. sales, and that the diesel line was critical for this to happen. He could not go back to senior leaders with news that this highly publicized goal was unachievable. Stephen had no choice but to figure out a quick solution.

Stephen had an epiphany: VW could design specifications for the IT project team to write software code that calibrated emissions specifically to meet the U.S. standards under test conditions. It seemed that easy. He would not provide any larger context to the team, nor in any way implicate them in how this could violate U.S. regulatory standards. He would treat this more as an abstract intellectual challenge to address creatively, not as a moral issue with potential human consequences. He knew the team loved a challenge and respected their company’s otherwise high production standards (along with a low opinion of how Americans build cars). Stephen believed the IT project team could be persuaded that the cars were safe and well-designed, but simply needed to get beyond the minor, nuisance technicalities of Washington bureaucrats. They, like he, were dismissive of the seemingly arbitrary inconveniences that Americans imposed on their cars. They were, after all, the world’s worst polluters, and did not deserve to dictate to a company like Volkswagen how best to design an automobile.

He called in Anna Stein to lead this project. She was immediately resistant:

Stephen, you’re asking us to design software to fool regulators? How do you expect us to accomplish this successfully?

Stephen was prepared for her concerns:

Anna, I have confidence your project team can figure this out. How can we compare the cost of developing a few lines of programming code against the incremental production costs and production schedule delays? Do you really want us to go back to VW leadership and say that the only way to meet these emission standards is by installing expensive features, which will raise prices and compromise performance and business goals? How do you weigh one against the other? I believe your team can solve this minor predicament through software. Do you want to be seen as an obstructionist over a petty detail?

Anna suspected Stephen was right. She began to think this through. Perhaps they could program the cars to sense when they were being tested, and rig them to perform cleanly during inspection. Perhaps test conditions could be inferred so that the car would know an indoor treadmill versus the open road. She had to admit this was an intriguing challenge.
In order to differentiate simulation from reality, perhaps the cars could be programmed to tell how long the engine had been running at various speeds, what weather conditions existed, and even how the steering wheel was positioned. (Anna knew that a steering wheel oscillates during road turns and changing highway conditions—but far less during artificial conditions.) During the simulation, the car could shift to a low emissions status, even though this would worsen fuel efficiency. But then on the highway, the diesel car would revert back to its normal high emissions/low fuel mileage state. VW would then pass the test without jeopardizing customer satisfaction. Stephen was right: This was an exciting exercise, with the added thrill of finding a quick fix to a perplexing corporate challenge.

Anna began to write her specifications for this—and how to define what constituted a test status for the car. But she was now conflicted over the ethical aspects of engaging her project team in a deception. How would she convey this to her staff, and how could she ensure this would not be leaked or uncovered? Her conscience bothered her, since she knew that her project team was going to be implementing a “defeat device.” While she wondered whether there were any other options, Anna reconciled herself to undertaking the necessary steps for this admittedly intriguing project.

First Anna had to document a scope statement for the project with the goal of implementing computer software that could sense test scenarios by monitoring speed, engine operation, and the position of the steering wheel to send the vehicle into a low emissions mode. Otherwise the software would function in “normal” mode—where fuel efficiency would be paramount.

Communicating this to the software team would be critical. Maybe one way would be, “We have an exciting problem to solve. Can we implement software that sends our VW vehicle into a low-emissions mode when, for example, it is idling? Cold-weather Canadian and American customers are accustomed to idling cars in the morning. They even have remote starters, which turn their cars on from their kitchen, to warm up the interior and get the diesel engine warm and ready to go. Does this sound like something we can program? It will involve the embedded software team in productions and us.”

Anna knew that she was deliberately hiding the real issue of designing a defeat device to pass EPA requirements. She recalled what she learned in one of the business courses. In one particular case study, it was important to listen to others’ points of view, negotiate in good faith, and provide accurate information in a timely manner. She wondered if, as project manager, she was failing to communicate the project details to the project team and to disclose stakeholder interests in the outcome of the project. At this point, however, she felt that unethical or illegal conduct was not involved. The project was simply a hypothetical puzzle and intellectual exercise.

So, with the informal authorization to launch the project, Anna began working on project details. Anna’s role as the project manager (PM) was to manage the project and focus on the product, customer, money, and schedule. Also, as PM, she accepted full responsibility for the quality of the deliverables. Projects are generally organized and executed in phases. The details differ from one industry to another, but all projects run in an orderly sequence of phases and activities. This was going to be true for Anna’s IT project as well. A simple, informal way to remember the project life cycle was the B-C-D-E-F stages she recalled from a college course on project management.

- Business case [B]: Identify the need and its reason for existence.
- Charter the project [C]: Officially launch it and identify project manager.
• Develop the project [D]: Plan the project.
• Execute the project [E]: Do the project.
• Finish the project [F]: Close it down and learn its lessons.

The life cycle phases reduce complexity, presumably increase transparency, and allow for controlled transitions and handoffs at formal “stage-gate” review meetings. These reviews are meant to detect problems and suggest solutions, or terminate projects no longer feasible within given constraints. Anna was hoping that the project life cycle and the formal gates would allow project managers and senior executive members who participated in these meetings to be accountable and evaluate any problems regarding the scope of the project or the identified software deliverables.

Integrated project delivery (IPD) was the first document to complete on this project. This document would align interests, objectives, and practices, for VW. IPD is designed for collaboration from the start of a project—by uniting the owner and project team in a common understanding conducive to quality delivery. Anna completed the following documents as well:

• Preliminary Technical Assessment
• Preliminary Legal Assessment
• Preliminary Risk Assessment
• Preliminary Financial Assessment

Within that, she identified stakeholders and documented many ways to engage them in this project. As a practicing project manager, next she would analyze risks. The completed deliverables would come in handy.
Table: III-A-3-1 Preliminary Risk Register

<table>
<thead>
<tr>
<th>Risk</th>
<th>Quantification High, Medium, Low</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Assessment: Complex problem. Not sure if a solution is feasible.</td>
<td>High</td>
<td>Actively engage production experts from outside R&amp;D. They are aware of various parameters that need to be detected: speed, engine operation, air pressure, and position of the steering wheel.</td>
</tr>
<tr>
<td>Legal Assessment: If used for EPA testing purposes, it can function as a defeat device.</td>
<td>Medium</td>
<td>Consult with a legal advisor as soon as the product is clearly feasible.</td>
</tr>
<tr>
<td>Financial Assessment: The budget is not being allocated clearly to this project.</td>
<td>Medium</td>
<td>Consult with senior management and obtain funding for project.</td>
</tr>
<tr>
<td>Communication: It is not clear how to communicate. Who should be aware? Who should not be aware of the project?</td>
<td>High</td>
<td>Stephen will provide a list of stakeholders who should be aware of this project. Anna was going to engage them in the project on a need-to-know basis.</td>
</tr>
</tbody>
</table>

These documents were scheduled for presentation at a stage-gate meeting called by Stephen as sponsor of the project. But this meeting was canceled by a senior executive. Instead, Stephen received informal feedback that he shared with Anna. He said, “All looks good and we should move forward with the project implementation immediately. Complete the planning documents and provide me with an estimated cost budget and schedule.” Anna was surprised that the senior management did not issue a formal charter now that the business analysis phase of the project was over. The project life cycle was only going to be “B-D-E-F,” she thought. The “C” charter phase was gone. The charter would have given Anna an opportunity to see the project objectives clearly and explicitly, and served as a reference of authority from senior management for the future of the project.

After six months, Anna completed a comprehensive project plan that Stephen reviewed and submitted to the steering committee for approval. He indicated that schedule, not budget, is the issue. VW needed to move quickly.

In every project, there is always a role for a technical director (TD) to manage the technical details of the project. At VW, Geoff Burton was the TD on this project. From the outset, he was concerned about the project goals and that it was not going to be a visible project. A techie at heart, he decided not to question the broader business goals of the project or the reasons for secrecy—and simply focus on the details.

Regardless, there were several occasions for conflict between Anna and Geoff. One recurring conflict on the goals of the project took place in early 2012 as the project was ending:
Geoff: “My team and I were having lunch together yesterday to celebrate a key milestone for this project, and the discussion once again arose if the embedded software program in the VW car was going to be used as a ‘defeat device’ for EPA emissions testing purposes.”

Anna: “We had this discussion earlier. The business goals behind this project were resolved by Stephen and others more than a year ago. I don’t foresee this as a problem and it shouldn’t impact our satisfactory conclusion of the project.”

Geoff: “I was taken by surprise yesterday. Neil, our software engineering marvel, seemed upset. He is a dedicated environmentalist. He drives a Toyota hybrid to work! He believes that the software will find its way into production and customers will not be aware of the impact when VW cars don’t comply with clean air standards.”

Anna: “We should simply assume that all parties and even the customer will be appropriately informed of this issue.”

Geoff: “In the final documentation, we need to explain the technology and its potential impact on VW stakeholders.”

Anna: “We don’t want to do that yet. I don’t want to scare anyone or jeopardize the successful completion of our project. It will all work out.”

That night, Anna was reflecting on the entire project, the risks, and earlier discussions with Stephen and more recently with Geoff. The critical question was whether she communicated with her boss adequately. Were there options other than implementing a defeat device? Could Anna have done a better job evaluating the pros and cons of each option in order to make a decision?

Also, was she complicit in her role as project manager for masking some details of the project? Her conversation with Geoff was very uncomfortable, especially when it skirted the true use of the software. It kept her up at night worrying. She was wavering between two extremes. One was fully supporting Stephen and VW’s goals of breaking into the American market and believing that it would all be fine in the end. And the second extreme was an obvious reflex response: It just did not feel right. Complicating her thinking was her cultural perspective on the issue. She recalled a discussion with Stephen that tweaking performance settings for stationary cars was legal in Europe and should not pose a problem in the American context.
Project Management and the Ethics of Deception: A Fictional Scenario Based on Volkswagen’s Emissions Scandal

Part B: Fact

VW’s deception worked for a while. The U.S. market grew, thanks to aggressive sales in diesel cars. But researchers at West Virginia University could not replicate the laboratory NOx emission results on their open road tests. VW continued to question, and even belittle, their findings, even after they were verified in government tests. But the discrepancy between staged and road tests was simply too glaring to be explained away. It soon became apparent that the cars were designed specifically to fool regulators into certifying a far better emissions record than was the case.

Finally, after months of stonewalling, VW admitted that “defeat software” had been installed on eleven million diesel cars worldwide, and a half million within the United States. This software allowed VW to pass the NOx emission standards in simulated tests. Once the cars left the laboratory they spewed pollution forty times worse than the permitted level. In America alone, NOx pollutants—which cause emphysema, bronchitis, and other respiratory diseases—were responsible for an estimated 58,000 deaths annually.

The American VW group president, Michael Horn, publicly apologized and claimed, though caught off guard by this revelation, he was certain it was simply the fault of a few overzealous software engineers. The press was incredulous, and skeptical that such an extensive scheme could be the result of just a few rogue programmers acting on their own, and go unnoticed elsewhere in the organization. Why would they take this chance? Why would they put their company, and themselves, in such jeopardy? How could no one else have known this, and how did a small project team keep this a secret from leaking elsewhere in the company and to the public? Why did a few American researchers have to uncover this deception?

Immediately, in Fall 2015, VW’s stock collapsed by one-third and sales of autos in the United States plummeted by one-quarter within the subsequent months. VW faced billions of dollars in fines, law suits, vehicle recalls, and buy-backs, and other costs—along with irreparable, immeasurable damage to its reputation. Its US $7.3 billion provision to rectify this scandal would not be sufficient. Investigations were launched in the United States and in other countries. Martin Winterkorn resigned on September 23, 2015, a week after the scandal erupted as a worldwide headline and two months after announcing his company’s crowning achievement of becoming the leading automaker on the planet.
Part B: Fiction

When this became public during the month of September 2015, Anna Stein made an appointment to talk with Stephen Musberg. She knew she would be questioned as a key figure in creating this defeat software. She realized she should have protected herself earlier—and perhaps disclosed this to others. Anna had trusted and deferred to Stephen—and now wondered if she should continue to do so. She thought of herself as a decent person, not capable of the massive deception that now engulfed Volkswagen. As she thought about her missed opportunities, she contemplated her current options. What caused this fiasco, and who would be blamed? What were her responsibilities along the way, and now, at this critical point in the crisis? What are her choices now? Should she trust in Stephen, consult a lawyer, go to the press, or remain silent?
Appendix III-A-4: A Brief Bibliography of Writings on Ethics

General Works on Ethics


This book is a readable introduction to behavioral ethics, which is based on empirical studies that demonstrate that gap between intended and actual ethics.


This article would be a good discussion piece for what happens when there is a basic ethical breakdown in a company, often because of the unintended consequences of misguided direction from above. This is relevant for project managers who might focus on fulfilling, rather than questioning goals that have been established. Unrealistic expectations, company rules, the fear of being reprimanded, and corporate politics can cause individuals considered ethical to otherwise have an ethical lapse.


This book discusses at length the thought patterns and decision making that can address failure in complex situations. Dörner identifies the “logic of failure”—tendencies in patterns of thought that have disastrous consequences.


This collection covers individual case studies in ethics both in management and specific to project management.


This classic article explores situations from a manager’s perspective as to why otherwise good business managers make bad or unethical business choices. The article explores the rationalizations that can lead to misconduct through three separate business cases: Manville Corporation and asbestos’ Continental Illinois Bank and their unethical lending schemes, and the brokerage firm E. F. Hutton with mail and wire fraud, which can easily be applied to more contemporary scandals.


The purpose of this article is to have people to talk openly about ethics and guide employees to making the best choices before being caught in an ethical dilemma. The article focuses on setting the right example, framing ethics to highlight prevention, distinguishing between positive economic outcomes for a company and positive ethical outcomes and the considerations behind each, and utilizing performance reviews to impact employee ethical behavior.
Jennings, M. M. (2006). *The ethical signs of ethical collapse*. New York, NY: St. Martin's Press. Though her focus is more on financial scandals, Jennings provides a clear checklist of signs that point to a self-destructive path. This is potentially relevant to danger signs that program and project managers might uncover as they set out to develop and implement a project.


Malloch, T. R., & Mamorsky, J. D. (2013). *The end of ethics and a way back: How to fix a fundamentally broken global financial system*. Solaris South Tower, Singapore: John Wiley & Sons. This book is more geared toward the collapse of the financial industry and what led to these problems, and the types of cultures that prevailed in these companies.


Scholtens, B., & Dam, L. (2007). Cultural values and international differences in business ethics. *Journal of Business Ethics*, 75, 273–284. This article covers how ethics can differ internationally from country to country and also from company to company in each country. The perspective that this article covers is research pulled from 2,700 companies, 24 companies, and 35 industries. The different areas of ethics covered include the handling of bribery and corruption, codes of ethics and their implementation, and human rights policy. This article is relevant for cross-cultural communications and projects.

Works on Ethics Especially Relevant for Project Management


At what cost to one's career should one consider blowing the whistle? The article talks about the personal impacts the whistleblower suffered from being an outcast in a town in which he was once even mayor.


This book addresses the specific ethical issues that could be faced on engineering projects: Process ethics, virtue ethics, and material ethics are several of the ethical areas covered in this book.


This book is a resource specifically for an IT project management class, with topics such as social networking, ethics in IT organizations, software development, and so on.


This is a strong resource for why ethics is important to project management. Written by a Project Management Professional (PMP)®, this book specifically applies ethics to project managers and addresses ethical issues that may come up that are particular to project management. The book focuses on topics such as management tone from the top, pressure to adjust results to meet expectations, pressure to report positive data, protecting one's status and position, and how ethics permeates the project life cycle. This book is a potential reference resource for a project or program management course, particularly in project governance.


This book is a memoir of Gene Kranz's career at NASA and also a very detailed look at how he got his teams to work together in the mission control room in a very high pressure situation.


This article goes into detail on the CEO of Mary Barra and how she handled the GM ignition switch scandal from a crisis management perspective. The article points out how Mary Barra, a lifer at GM, was able to come out at the end of the scandal with her reputation intact, as a leader handling a crisis effectively while still keeping a solid reputation.

This article goes into lengthy detail on the Volkswagen emissions scandal. There is a YouTube video within the article that explains a study that connects 60 deaths to the emissions scandal. The article also points out that this is not the first time that Volkswagen has skirted the law in the production of their vehicles.


This covers the GM ignition-switch scandal and how GM's dysfunctional culture of hiding problems—a culture that the CEO Mary Barra is pushing to change in light of the ignition-switch scandal.


The article first talks about the software installed in the cars that could track when the car was tested for emissions testing and adjusted accordingly. The exhaust system is described in detail.


This covers vendors and subcontractor relations on a major emotional project, such as the World Trade Center Museum. The Port Authority of New York City owns the World Trade Center museum project and hired Collavino Construction, a major contracting firm out of Canada to complete the project. However, Collavino faced problems and delays when they hired subcontractors for the project.


This article is appropriate for a project communication class (the best ways to handle communications in a crisis) as well as a project risk class. This article describes the nuclear accident itself and how the radiation was addressed—evacuations, morgue management, food and drinking water supply protection and iodine prophylaxis. This article is suitable for risk communication and public health preparedness for future nuclear disasters.


Roger Boisjoly worked for the subcontractor of NASA, Morton Thiokol. He had data on the o-rings and the potential dangers of launching the space shuttle in subzero
temperatures. However, NASA overrode him and launched anyway and the subsequent explosion occurred, killing all seven astronauts on board.


This article first covers the lessons that Boeing learned from its manufacture and production of the 737 airplanes in which they produced a very expensive airplane without much customer input—but at the end, very few airlines wanted to purchase. What was unique in the production of the Boeing 777 is that United Airlines was involved as a customer in the design sessions.


Chernobyl was ranked as a major accident (the highest rating) on the International Nuclear Event scale, which rendered the town of Pripyat radioactive and uninhabitable for hundreds of years. Students could consider the ethical implications of building a shelter to cover the destroyed reactor to prevent even further damage versus endangering a project team.


This book was written by an engineer who worked for the subcontractor of NASA, Morton Thiokol. This book not only describes the technical issues, but also the ethical issues involved in “blowing the whistle.” The engineer who wrote this book was targeted for retribution by both NASA and Morton Thiokol.


Wells Fargo is trying to use tactics such as closed-door arbitration to settle suits versus going to court, which, as the article explains, is a tactic many large companies use to try to kill class-action lawsuits.


This is a well-written, first-person account of a major government contract project (B.F. Goodrich manufacturing a brake for the U.S. Air Force), which resulted in a near fatal outcome. It is a fascinating close-up, inside account of a group project effort that became dysfunctional. This is a classic case of ethical denial. Other still relevant cases from this era would include the Union Carbide chemical disaster in Bhopal, India, and the Ford Pinto combustible engine. Though these are not recent, they continue to illustrate the challenge of taking individual and collective responsibility. More recently, the Volkswagen emissions deception is an unfolding case of “groupthink,” where participants fail to disrupt a project with their ethical concerns. These examples are easily retrievable online as cases, articles, and videos.
Appendix III-A-5: A Brief Bibliography of Writings on Leadership

Leadership in Classic Writing

*The Art of War*, Sun-Tzu (many editions available)
Another classic volume, more focused on conflicts and struggle than *The Prince* and a forerunner of game practice for leaders. A very interesting book and still very useful for anyone aspiring to leadership of any kind.

*The Prince*, Niccolo Machiavelli (many editions available)
The classic book of advice written for a new leader in Renaissance Italy—often misunderstood as being cynical or cruel but a very realistic and still useful text on ruling and being a leader.

Leadership in Modern Writing

Argyrus is a very interesting management theorist and one of the first thinkers to study organization learning and how it works. He was quite critical of many current management practices and this volume is a good example of the faults he found in the subjects listed in the title.

Barnard was a senior executive in the telecommunications industry and wrote this book in the 1930s. It was an instant classic and one of the very first non-military books to specify the duties of executives and leaders in terms of culture, leadership, and the overall health of the organization. Still very much worth reading.

Warren Bennis was a very well-known and influential management educator whose major focus is on leadership. These two books, though somewhat repetitious, contain the essence of his messages, and are, perhaps, the best volumes to read on leadership in the modern era. Bennis was one of the first leadership thinkers to incorporate many of the findings of modern social science and the humanities, and these multidisciplinary works contains his synthesized thinking as it applies to leadership in any industry or function.

The importance of optimal performance, learning, and developing capability is explained in this original work.

There have been many books written about knowledge management, and this one is still the best for understanding how knowledge impacts organizations. It is also very strong at offering practical steps for how organizations can generate, codify, and transfer knowledge.


Drucker is perhaps the most influential general management theorist in modern times and anything he writes is worth reading. This volume is more strictly focused then his more general books on leadership and its roles, responsibilities and key tasks in the changing world. Very clearly written and through.


Goleman is the writer that made us all aware of the profound importance of emotional intelligence.


A classic article on leadership that promoted the notion that managers and leaders do different things.


For those who are seeking a model for leadership, this is a good place to start. The leadership model is one of the most researched and constantly updated to reflect the importance of the work.


A book that shares vignettes of the emergence of four projects—two NASA, two Defense industry. The book provides firsthand accounts of the realities and challenges of leading a complex project. The book also demonstrates the power of storytelling to convey lessons. The foreword by Ronald Heifetz is a nice bonus.


An important book that separated leadership challenges into technical routine problems, and complex adaptive challenges. This recognizes that leadership is a lot more challenging than simple lists. In many ways, it anticipates the modern age of entrepreneurship, complexity, and accelerated change.


Maslow was a very influential social psychologist in the 1950s and 60s, who is best known for his stages of human development. However, he also used his insights and applied them to management and particularly leadership in organizations.

Burns is an historian and political scientist and his work is attuned to leadership in social and political settings. His thoughts and insights are very valuable to anyone aspiring to leadership, and his focus on power and leadership is both realistic and less likely to be found in purely management texts. He is the leading proponent of “transformative leadership.”


It’s all about people. This book demonstrates that point, explains why, and what to do.


**Leadership in Contemporary Writing**


A short yet reasonably comprehensive overview of modern theories and practices of leadership in all spheres of human activities. Grint also has edited, for Oxford University Press, a valuable anthology of major articles and chapters on leadership entitled *Leadership: Classic, Contemporary and Critical Perspectives*, also published by Oxford.


An article that makes the case for agility, adaptiveness, and trust as part of every successful project manager’s approach.


This edited volume is based on a conference at Harvard held to advance the study of leadership as a formal discipline. The two editors are prominent Harvard deans and their choices of authors for inclusion here are very well-considered. The book is multidisciplinary and is the most comprehensive scholarly overview of leadership available.


This volume is similar to the one above but it focuses exclusively on how to educate managers for leadership positions. It is also an edited volume and is by far the most inclusive and comprehensive selection of pieces on this subject.


A critical study of how leadership has been studied for the past several decades, and the author finds many of these theories wanting. He was one of the first to separate
leadership from management as tasks, as well as showing how past leadership studies were more suited to an industrial economy that is now rapidly becoming outmoded.
