

PM3440
Project Management for Information
Technology
[Onsite]

Course Description:

This course examines the characteristics of IT-specific projects. Students will study a variety of approaches to managing IT projects

Prerequisite(s) and/or Corequisite(s):

Prerequisite: PM3140 Systems Analysis or equivalent

Credit hours: 4.5

Contact hours: 56 (34 Theory Hours, 22 Lab Hours)

Where Does This Course Belong?

This course is part of the Bachelor's degree program in Project Management and Administration – Information Technology Option (PMIT). The following diagram demonstrates how this course fits in the standard program:

Program Outline:

8th QTR

PM3110 Introduction to Project Management

MA3110 Statistics

PM3140 Systems Analysis

9th QTR

PM3220 Project Communication and Documentation

PY3150 Psychology

PM3225 Project Management Tools and Techniques

10th QTR

PM3320 Project Cost and Budget Management

SS3150 Research Methods

PM3325 Project Quality Management

11th QTR

PM3420 Procurement and Contract Management

EN3220 Written Analysis

PM3440 Project Management for Information Technology

12th QTR

PM4540 Managing Software Development Projects

HU4640 Ethics

PM4530 Management of Global Projects

13th QTR

MG4650 Team Leadership

SP3450 Social Psychology

PM4620 Project Risk Management

14th QTR

SC4730 Environmental Science

PM4795 Project Management and Administration - Information Technology Capstone Project

NOTE: Refer to the catalog for the state-specific course and program information, if applicable.

Course Summary

Major Instructional Areas

1. General purposes, principles and processes of project management
2. Features of Information Technology projects
3. Comparison and contrast of generic project management and project management for information technology projects
4. Specific areas of project management for information technology projects
5. Factors contributing to effective project management for information technology projects
6. Specific skills required by effective management of information technology projects

Course Objectives

1. Define project management based on PMBOK® principles and methods
2. Identify common characteristics of IT projects
3. Analyze the purpose and scope of a specific IT project
4. Identify business and technical requirements for the target IT project
5. Define the owner(s) and all the stakeholders of the IT project
6. Apply project management principles and processes to define and scope the target IT project
7. Perform project cost analysis
8. Identify and secure required resources for the successful execution and completion of the project
9. Identify project risks
10. Design a complete project plan based on and comprehensive analysis of the project
11. Develop strategies for risk mitigation
12. Create effective documentation for managing the IT project
13. Proactively manage the quality of the project based on established scope and milestones
14. Evaluate the quality of the project execution post project completion

Learning Materials and References

Required Resources

Complete Textbook Package	New to this Course	Carried over from Previous Course(s)	Required for Subsequent Course(s)
Marchewka, Jack T. <i>Information Technology Project Management, Providing Measurable Organizational Value, Fourth Edition</i> . John Wiley & Sons, Inc., 2012.	■		■

Recommended Resources

Professional Journals

- PM Network: <http://www.pmi.org>
- Project Management Journal: <http://www.pmi.org/Knowledge-Center/Publications-Project-Management-Journal.aspx>
- Project Management World Today: <http://www.pmworltdtoday.net/>
- Project Magazine: <http://www.projectmag.com/>
- Projects At Work: <http://www.projectsatwork.com/>
- International Organization for Standardization
<http://www.iso.org/iso/home.html>
- Software Engineering Institute of Carnegie Mellon University
<http://www.sei.cmu.edu/risk/>

Professional Associations

- American Society for the Advancement of Project Management
<http://www.asapm.org/> (accessed 6/19/11).
- International Association of Project and Program Managers

<http://www.iappm.org/> (accessed 6/19/11).

- International Project Management Association
<http://www.ipma.ch/Pages/default.aspx> (accessed 6/19/11)
- International Research Network on Organizing by Projects
<http://www.irnop.org/> (accessed 6/19/11).
- National Management Association
<http://nma1.org/> (accessed 6/19/11).
- Project Management Institute
<http://www.pmi.org/> (accessed 6/19/11).

ITT Tech Virtual Library (accessed via Student Portal)

Books 24x7

- Adair, J. (2002). Inspiring leadership—Learning from great leaders. London: Thorogood Publishing.
- Bordas, J. (2007). Salsa, soul, and spirit: Leadership for a multicultural age. San Francisco, CA: Berrett-Koehler Publishers.
- Dotlich, D. L., Cairo, P. C., & Rhinesmith, S. H. (2006). Head, heart, and guts: How the world's best companies develop complete leaders. San Francisco CA: Jossey-Bass.
- Hutson, H., & Perry, B. (2006). Putting hope to work: Five principles to activate your organization's most powerful resource. Santa Barbara, CA: Greenwood Press.
- Kendrick, T. (2004). The project management tool kit: 100 tips and techniques for getting the job done right. New York NY: AMACOM.
- Kliem, R. L. (2004). Leading high performance projects. Boca Raton, FL: J. Ross Publishing, Inc.
- Prentice, S. (2007). Cool down: Getting further by going slower. Hoboken, NJ: John Wiley & Sons.
- Rothwell, W. J. (2005). Effective succession planning: Ensuring leadership continuity and building talent from within. (3rd ed.). New York, NY: AMACOM.
- Selby, J., & Netanel, A. (2008). Executive genius: How to build a high-awareness company. Pompton Plains, NJ: Career Press.
- Verma, V. K. (1997). The human aspects of project management: Managing the project team. Volume Three. Newtown Square, PA: Project Management Institute.

Ebrary

- Aldisert, L. M. (2002). Valuing people: How human capital can be your strongest asset. Chicago, IL: Dearborn Trade, A Kaplan Professional Company.
- Baker, S. (2000). Complete idiot's guide to project management. Indianapolis, IN: Alpha Books.
- Bal, V. (2008). Managing leadership stress. Greensboro, NC: Center for Creative Leadership.
- Cagle, R. B. (2004). Your successful project management career. New York, NY: AMACOM.
- Center for Creative Leadership. (2007). Leading dispersed teams. Greensboro, NC: Center for Creative Leadership.
- Deal, J. J. (2007). Developing cultural adaptability: How to work across differences. Greensboro, NC: Center for Creative Leadership.
- Goldsmith, M., Segil, L., & Belasco, J. (2002). Partnering: The new face of leadership. New York, NY: AMACOM.
- Heerkens, G. Project management. New York, NY: McGraw-Hill Trade.
- Kanaga, K. (2007). How to launch a team: Start right for success. Greensboro, NC: Center for Creative Leadership.
- Kanaga, K. (2007). Maintaining team performance. Greensboro, NC: Center for Creative Leadership.
- Kendrick, T. (2004). Project management tool kit: 100 tips and techniques for getting the job done right. New York, NY: AMACOM.
- Klann, G. (2007). Building your team. Greensboro, NC: Center for Creative Leadership.
- Lewis, J. P. (2003). Project manager's pocket survival guide. New York, NJ: McGraw-Hill Trade.
- Lewis, J. P. (2002). Working together: 12 principles for achieving excellence in managing projects, teams, and organizations. New York, NY: McGraw-Hill Education Group.
- Popejoy, B. (2007). Managing conflict with direct reports. Greensboro, NC: Center for Creative Leadership.
- Richman, L. L. (2002). Project management step-by-step. New York, NY: AMACOM.
- Rosen, A. (2004). Effective IT project management: Using teams to get projects completed on time and under budget. New York, NY: AMACOM.
- Scharlatt, H. (2008). Selling your ideas to your organization. Greensboro, NC: Center for Creative Leadership.
- Sheard, A.G., & Kakabadse, A. P. (2004). A process perspective on leadership and team development. Bingley, UK: Emerald Group Publishing Ltd.
- Tinnirello, P. C. (2001). New directions in project management. Boca Raton, FL: Auerbach Publishers, Inc.

Other References

- Gantthead.com: the online community for IT project managers
<http://www.gantthead.com/> (accessed 6/19/11).
An online community for project managers offering processes, templates, examples, and tips
- Dvir, D. and Shenhar, A. (2011). What Great Projects Have in Common. *MIT Sloan Management. Volume 52. No. 3*. Retrieved from
http://business.rutgers.edu/sites/default/files/scmms_what_great_projects_have_in_common.pdf
- Ollus, M., Jansson, K., Karvonen, I., Uoti, M., & Riikonen, H. (2011). Supporting collaborative project management. *Production Planning & Control*, 22(5/6), 538-553.
- Reynolds, J. (2011, May 3). Manage Projects Efficiently. *The Observer*. Section p. 16.
- Project plan. (2010). *HCPPro's Advisor to the ANCC Magnet Recognition Program*, 6(2), 8-8.
Retrieved from <http://search.proquest.com/docview/198480315?accountid=27655>
- Tang, O., & Nurmaya Musa, S. S. (2011). Identifying risk issues and research advancements in supply chain risk management. *International Journal of Production Economics*, 133(1), 25-34.
doi:10.1016/j.ijpe.2010.06.013

Information Search

Use the following keywords to search for additional online resources that may be used for supporting your work on the course assignments:

- PMBOK Standards
- Project Management
- Project Planning
- Project Scope
- Project Stakeholders
- Cost Analysis
- Risk Identification
- Project Documentation



Suggested Learning Approach

In this course, you will be studying individually and within a group of your peers. As you work on the course deliverables, you are encouraged to share ideas with your peers and instructor, work collaboratively on projects and team assignments, raise critical questions, and provide constructive feedback.

Use the following advice to receive maximum learning benefits from your participation in this course:

DO	DON'T
<ul style="list-style-type: none">▪ Do take a proactive learning approach▪ Do share your thoughts on critical issues and potential problem solutions▪ Do plan your course work in advance▪ Do explore a variety of learning resources in addition to the textbook▪ Do offer relevant examples from your experience▪ Do make an effort to understand different points of view▪ Do connect concepts explored in this course to real-life professional situations and your own experiences	<ul style="list-style-type: none">▪ Don't assume there is only one correct answer to a question▪ Don't be afraid to share your perspective on the issues analyzed in the course▪ Don't be negative about the points of view that are different from yours▪ Don't underestimate the impact of collaboration on your learning▪ Don't limit your course experience to reading the textbook▪ Don't postpone your work on the course deliverables – work on small assignment components every day

Course Outline

<p>Unit 1: Introduction to Software Project Management</p> <p style="text-align: right;">Out-of-class work: 8 hours</p> <p>Upon completion of this unit, students are expected to:</p> <ul style="list-style-type: none"> Analyze reasons that IT projects fail Define an information technology project Describe the system development life cycle 			
GRADED ACTIVITIES / DELIVERABLES			
READING ASSIGNMENT	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapter 1	Assignment	Unit 1 Assignment 1: IT Project Failures	3%
		Unit 1 Assignment 2: I Definition of a Project	3%
	Exercise	Unit 1 Exercise 1: System Development Life Cycle Case Study	3%

<p>Unit 2: Process Models for Software Development</p> <p style="text-align: right;">Out-of-class work: 8 hours</p> <p>Upon completion of this unit, the students are expected to:</p> <ul style="list-style-type: none"> Differentiate the information technology project methodologies Explain different business cases related to information technology 	
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- Understand the criteria used for choosing an IT project

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapter 2	Assignment	Unit 2 Assignment 1: Information Technology Project Methodology	3%
		Unit 2 Assignment 2: Business Cases	3%
	Exercise	Unit 2 Exercise 1: RFID Supply Chain	3%

Unit 3: Establishing Project Foundations

Out-of-class work:

Upon completion of this unit, the students are expected to:

8 hours

- Explain the purpose behind project management process groups
- Analyze strategies for managing the integration of multiple projects
- Create a project charter based on a case study

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapter 3	Assignment	Unit 3 Assignment 1: Project Management Process Groups	3%
		Unit 3 Assignment 2: Project Integration Management	3%
	Exercise	Unit 3 Exercise 1: Creating a Project Charter	3%

Unit 4: Plans and Planning for Projects

Out-of-class work:

Upon completion of this unit, the students are expected to:

8 hours

- Explain the importance of effective organization of a project team
- Explain the role of a project manager
- Determine the most important roles to have on a project team based on a case study

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapter 4	Assignment	Unit 4 Assignment 1: Project Organizational Structure	3%
		Unit 4 Assignment 2: Project Manager Roles	3%
	Exercise	Unit 4 Exercise 1: Team Selection	3%

<p>Unit 5: Project Planning Techniques</p> <p style="text-align: right;"><i>Out-of-class work:</i> 8 hours</p> <p>Upon completion of this unit, the students are expected to:</p> <ul style="list-style-type: none"> • Determine the scope of a project • Verify the scope of a project using multiple verification techniques • Estimate the cost of a project based on a case study 	
READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES

	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapter 5-6	Assignment	Unit 5 Assignment 1: Project Scope	3%
		Unit 5 Assignment 2: Verifying Project Scope	3%
	Exercise	Unit 5 Exercise 1: Project Cost Estimation	3%

Unit 6: Project Cost Estimation Techniques

Out-of-class work:
8 hours

Upon completion of this unit, the students are expected to:

- Create a project schedule using Gantt Charts
- Identify project risks using risk estimation techniques
- Analyze project risks using decision trees

READING ASSIGNMENT	GRADED ACTIVITIES / DELIVERABLES		
	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapters 7-8	Assignment	Unit 6 Assignment 1: Creating a Project Schedule Using Gantt Charts	3%
		Unit 6 Assignment 2: Identifying Project Risk	3%

	Exercise	Unit 6 Exercise 1: Analyzing Project Risk using Decision Trees	3%
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Unit 7: Measuring and Controlling Work Products

Out-of-class work:

Upon completion of this unit, the students are expected to:

8 hours

- Define project metrics related to earned value
- Distinguish between ISO, Six Sigma, and CMMI project management guidelines
- Create a quality plan based on an IT project case study

GRADED ACTIVITIES / DELIVERABLES			
READING ASSIGNMENT	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapter 9-10	Assignment	Unit 7 Assignment 1: Project Metrics and Earned Value	3%
		Unit 7 Assignment 2: ISO, Six Sigma, and CMMI	3%
	Exercise	Unit 7 Exercise 1: IT Project Quality Plan Case Study	3%

Unit 8: Measuring and Controlling Work Processes

Out-of-class work:
8 hours

Upon completion of this unit, the students are expected to:

- Explain the importance of having a change process in place for an IT project
- Develop a change management plan for a project
- Identify techniques for minimizing resistance to changes in an IT project

GRADED ACTIVITIES / DELIVERABLES			
READING ASSIGNMENT	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Chapter 11	Assignment	Unit 8 Assignment 1: Change Process	3%
		Unit 8 Assignment 2: Change Management Plan	3%
	Exercise	Unit 8 Exercise 1: Resistance to Change Case Study	3%

Unit 9: Managing Project Risk

Out-of-class work:
8 hours

Upon completion of this unit, the students are expected to:

- Differentiate between project procurement options
- Evaluate the benefits and risks to outsourcing an IT project
- Analyze buying software and developing custom software

GRADED ACTIVITIES / DELIVERABLES			
READING ASSIGNMENT	Grading Category	Activity/Deliverable Title	Grade Allocation
			(% of all graded work)
Marchewka, Chapters 12	Assignment	Unit 9 Assignment 1: Project Procurement	3%
		Unit 9 Assignment 2: Outsourcing	3%
	Exercise	Unit 9 Exercise 1: Buying vs. Developing Case Study	3%

<p>Unit 10: Teams, Teamwork, and Organizational Issues</p> <p style="text-align: right;"><i>Out-of-class work:</i> 8 hours</p> <p>Upon completion of this unit, the students are expected to:</p> <ul style="list-style-type: none"> • Explain the importance of professional ethics in IT projects • Explain the importance of diversity to a successful project • Evaluate a project based on ethical and diversity metrics 			
GRADED ACTIVITIES / DELIVERABLES			
READING ASSIGNMENT	Grading Category	Activity/Deliverable Title	Grade Allocation
			(% of all graded work)
Marchewka, Chapters 13-14	Assignment	Unit 10 Assignment 1: Ethics	3%

		Unit 10 Assignment 2: Diversity and Multicultural Projects	3%
	Exercise	Unit 10 Exercise 1: Project Evaluation	3%

Unit 11: Review and Final Exam		<i>Out-of-class work:</i> 8 hours	
GRADED ACTIVITIES / DELIVERABLES			
READING ASSIGNMENT	Grading Category	Activity/Deliverable Title	Grade Allocation (% of all graded work)
Marchewka, Review Chapters 1-14	Exam	Final Examination	10%

Evaluation and Grading

Evaluation Criteria

The graded assignments will be evaluated using the following weighted categories:

Category	Weight
Assignments	60%

Category	Weight
Exercises	30%
Exam	10%
TOTAL	100%

Grade Conversion

The final grades will be calculated from the percentages earned in the course, as follows:

Grade	Percentage	Credit
A	90–100%	4.0
B+	85–89%	3.5
B	80–84%	3.0
C+	75–79%	2.5
C	70–74%	2.0
D+	65–69%	1.5
D	60–64%	1.0
F	<60%	0.0

Academic Integrity

All students must comply with the policies that regulate all forms of academic dishonesty or academic misconduct, including plagiarism, self-plagiarism, fabrication, deception, cheating, and sabotage. For more information on the academic honesty policies, refer to the Student Handbook and the Course Catalog.

(End of Syllabus)