



Course: Project Management for IT Professionals

Guided Learning Hours: 24

Pre-requisite: Basic knowledge of IT

Abstract

Studies have shown that the leading causes of Information Technology (IT) project failure in organizations are related to poor project management, rather than technical challenges. For this reason, there is a growing awareness that having IT professionals trained in project management can significantly improve an organization's ability to deliver its IT projects on time, under budget, and in accordance with stakeholders' needs and expectations.

Project Management for IT Professionals introduces IT practitioners to the world of project management. This course utilizes a blended learning approach to introduce learners to key project management concepts, methodologies, tools and techniques, in an IT context. Learners will also be given practical 'hands-on' experience in the application of relevant project management theory, utilizing MS Project 2013 project management software. Upon successful completion of this course, learners would have acquired the necessary theoretical knowledge and practical skills to competently manage a small IT project in their organization.

Target Audience

Practitioners in the field of IT who wish to obtain an understanding of project management, or who are interested in attaining formal training in project management.

Learning Outcomes

Upon successful completion of this unit, learners will be able to:

1. Explain key project management terms and concepts;
2. Discuss key 'people' considerations in projects;
3. Discuss project management in the IT context;
4. Initiate an IT project;
5. Plan an IT project;
6. Monitor, control and execute an IT project;
7. Utilize project management software to assist in managing an IT project;
8. Closeout an IT project.

Indicative Content

1. Explain key project management terms and concepts

- *What is a project?* – Definition of a project; common characteristics of all projects; examples of IT projects; project constraints (i.e. scope, time, cost, quality, risk, resources).
- *What is project management?* – Definition of project management; project management knowledge areas (i.e. project integration, scope, time, cost, quality, HR, communications, risk, procurement); basic project life cycle (i.e. Initiation, Planning, Execution (including monitoring and control), and Closing); the importance of project management in today's society.

2. Discuss key 'people' considerations in projects;

- *Project leadership:* The role, responsibilities and skills required by a project manager.
- *Project team:* Factors that lead to successful selection and management of project teams.
Project stakeholders: Key roles critical to the success of all projects (including sponsor, champion, client, customer, owner); recognizing and responding to the needs of project stakeholders.

3. Discuss project management in the IT context

- The unique nature and characteristics of IT projects.
- The growing need for better IT project management.
- The importance of addressing the three (3) dimensions of IT projects (i.e. business, organizational and technological dimensions).
- The impact of organizational culture on IT projects.
- The importance of top management commitment and the need for organizational commitment to IT projects.
- Working with the project life cycle and IT product life cycle together.
- Recent trends affecting IT project management (e.g. globalization, outsourcing, virtual teams).

4. Initiate an IT project

- *Strategic planning and project selection:* overview of strategic planning; identifying potential projects; aligning IT with business strategy.
- Develop a project charter for a small IT project.
- Conduct a Project Kick-Off Meeting.

5. Plan an IT project

Plan an IT project with focus on the 'triple constraints' of scope, time and cost:

- *Scope Management*: gather functional and non-functional requirements; define scope; create a work breakdown structure (WBS) for a small IT project.
- *Time Management*: Use Gantt Charts to define and sequence project activities, identify the project's critical path, and develop a schedule for a small IT project.
- *Cost Management*: estimate project costs and prepare a budget for a small IT project; discuss typical problems with IT cost estimates.

6. Monitor, control and execute an IT project

- Utilize variance analysis for effective project monitoring and control.
- Report on project progress.
- Discuss the main focus of the project manager during execution phase.

7. Utilize project management software to assist in managing an IT project

- Utilize MS Project 2013 to perform key project scope, time and cost planning activities.
- Utilize MS Project 2013 to perform key project scope, time and cost monitoring and control activities to assist in keeping the project on track.

8. Closeout an IT project

- Discuss key activities to effectively close out the project.

Learning Outcomes and Assessment Criteria

LEARNING OUTCOME ON SUCCESSFUL COMPLETION OF THIS COURSE A LEARNER WILL:	ASSESSMENT CRITERIA FOR PASS THE LEARNER CAN:
1. Explain key project management terms and concepts	1.1 Define what a project is and discuss project characteristics, project examples and project constraints. 1.2 Define what project management is, outline key project management knowledge areas, and discuss the importance of project management in today's society. 1.3 Describe the phases and key activities of the basic project life cycle.
2. Discuss key 'people' considerations in projects	2.1 Describe the role, responsibilities and skills required by a project manager. 2.2 Describe the key challenges that a project manager is faced with in the management of project team members and stakeholders, explain how these challenges can be dealt with, and discuss how the management of the 'people' aspect of a project is critical for its success.
3. Discuss project management in the IT context	3.1 Describe key considerations, issues and challenges in the management of IT projects, including the unique nature and characteristics of IT projects, the growing need for better IT project management, the importance of addressing the three (3) dimensions of IT projects, the impact of organizational culture on IT projects, the importance of top management commitment, and the need for organizational commitment to IT projects. 3.2 Explain how the project life cycle can work together with the IT product life cycle for effective management of an IT project. 3.3 Describe recent trends affecting IT project management.
4. Initiate an IT project	4.1 Outline the strategic planning process and how potential projects are identified, and explain the need for IT projects to support the organization's overall business strategy. 4.2 Explain the importance of the project charter and Kick-Off Meeting to formally initiate a project, and develop a project charter and Kick-Off Meeting Agenda for a small IT project.
5. Plan an IT project (focusing on scope, time and cost)	5.1 Describe key project scope management activities and create a WBS for a small IT project.

LEARNING OUTCOME ON SUCCESSFUL COMPLETION OF THIS COURSE A LEARNER WILL:	ASSESSMENT CRITERIA FOR PASS THE LEARNER CAN:
	<p>5.2 Describe key project time management activities and create a schedule using a Gantt Chart for a small IT project.</p> <p>5.3 Describe key project cost management activities, discuss typical problems with IT cost estimates, and create a budget for a small IT project.</p>
6. Monitor, control and execute an IT project	<p>6.1 Explain how variance analysis is used as the basis for effective project monitoring and control, and describe how variance analysis is used to monitor and control project scope, time and cost.</p> <p>6.2 Describe techniques for reporting on project progress.</p> <p>6.3 Discuss the main focus of the project manager during the execution phase.</p>
7. Utilize project management software to assist in managing an IT project	<p>7.1 <i>Scope Management</i>: Use MS Project 2013 to develop a WBS for a small IT project.</p> <p>7.2 <i>Time Management</i>: Use MS Project 2013 to enter, adjust and track project schedule information for a small IT project (including entering task durations, establishing task dependencies, modifying task dependency types, adding lead or lag times, creating Gantt Charts, and establishing a baseline schedule and tracking deviations from it).</p> <p>7.3 <i>Cost Management</i>: Use MS Project 2013 to enter, adjust and track cost-related information for a small IT project (including entering and modifying fixed and variable costs, assigning resources to tasks, establishing a cost baseline and tracking deviations from it, and generating project cost reports).</p>
8. Closeout an IT project	8.1 Discuss key activities to effectively close out the project.

Outline Learning Plan

The outline learning plan has been included in this unit as guidance. It demonstrates one way of planning the delivery and assessment of this unit. Changes may be made as deemed necessary by the lecturer.

Session #	Delivery Mode	Topic	Learning Outcomes (LO) covered	Hours
1	In-class lecture	Key Concepts	<ul style="list-style-type: none"> • LO 1.1 • LO 1.2 • LO 1.3 	2
2	In-class lecture	Key Concepts	<ul style="list-style-type: none"> • LO 2.1 • LO 2.2 	2
3	Online (live) lecture	The IT Context	<ul style="list-style-type: none"> • LO 3.1 • LO 3.2 • LO 3.3 	2
4	Online (live) lecture	Initiation	<ul style="list-style-type: none"> • LO 4.1 • LO 4.2 	2
5	In-class lecture	Planning (Scope)	<ul style="list-style-type: none"> • LO 5.1 	2
6	Lab/demonstration	Planning using MS Project (Scope)	<ul style="list-style-type: none"> • LO 7.1 	2
7	In-class lecture	Planning (Time)	<ul style="list-style-type: none"> • LO 5.2 	2
8	Lab/demonstration	Planning using MS Project (Time)	<ul style="list-style-type: none"> • LO7.2 	2
9	In-class lecture	Planning (Cost)	<ul style="list-style-type: none"> • LO 5.3 	2
10	Lab/demonstration	Planning using MS Project (Cost)	<ul style="list-style-type: none"> • LO 7.3 	2
11	In-class lecture & Lab/demonstration	Monitoring, control & execution (including use of MS Project)	<ul style="list-style-type: none"> • LO 6.1 • LO 6.2 • LO 6.3 • LO 7.2 • LO 7.3 	2
12	In-class lecture	Closeout	<ul style="list-style-type: none"> • LO 8.1 	2
		Total Contact Hours		24

Essential Learning Resources

Core Textbook

- Information Technology Project Management - Kathy Schwalbe

Highly Recommended Textbooks

- An introduction to Project Management – Kathy Schwalbe
- Fundamentals of Project Management – Rory Burke

Websites

<http://www.pmi.org/PMBOK-Guide-and-Standards.aspx>