



Level 5 Diploma in Project Management (888) 145 Credits



Unit: Project Management Information Systems	Total Qualification Time: 240
Exam Paper No.: 2	Number of Credits: 24
Prerequisites: Computing knowledge and management experience.	Corequisites: A pass or better at Level 5 Diploma level.
<p>Aim: The unit emphasise on the relationship of project management techniques to the software development lifecycle model. Project management processes for initiating, planning, executing and closing down information technology projects are explored. Specific techniques covered include work breakdown schedules, network diagrams, PERT estimating, resource scheduling, resource levelling, risk identification, contingency planning and other skills are covered in depth. Learners conduct a series of case studies using Microsoft Project as project management tools. Learners examine the defining characteristics of IT projects, especially involving the development of software intensive systems, and are introduced to a variety of project management techniques that can be applied in an IT project context. The unit provides a disciplined approach to IT project management. While IT projects are similar in some ways to other types of projects, they pose unique challenges for the managers and organisations that undertake them. IT project management is particularly challenging because of several factors including: (1) the rapid pace of technological changes occurring in the IT field, (2) the invisible nature of software, (3) the ever-present pressure to add new features and functionality to systems, and (4) the difficulty of managing the organisational changes that accompany most IT implementations. The unit will give learners an understanding of the most common processes, tools, techniques, and theories necessary to manage IT projects to help alleviate challenges. Managing IT projects that follow both plan-driven traditional development methods as well as agile methods will be covered as well.</p>	
Required Materials: Recommended Learning Resources.	Supplementary Materials: Lecture notes and tutor extra reading recommendations.
Special Requirements: The unit requires the use of project management software.	
<p>Intended Learning Outcomes:</p> <p>1 The nature of Information Technology projects; overview of Information Technology Project Management (ITPM).</p>	<p>Assessment Criteria:</p> <p>1.1 Explain the socio-technical, project management and knowledge management approaches that support IT PM.</p> <p>1.2 Define what an IT project is and describe its attributes.</p> <p>1.3 Define the discipline called project management.</p> <p>1.2 Describe what project management is and key elements of the project management framework</p> <p>1.3 Analyse how project management relates to other disciplines</p> <p>1.4 Describe the project management profession, including recent trends in project management research, certification, and software products</p> <p>1.5 Describe the role and impact IT projects have on an organisation.</p> <p>1.6 Identify the different roles and interests of project stakeholders.</p> <p>1.7 Describe the project life cycle, the systems development life cycle and their relationship.</p> <p>1.8 Describe software crisis.</p> <p>1.9 Evaluate the growing need</p>

<p>2 Conceptualising and initiating of an IT Project development need cross-functional integration of creativity to support the operational and implementation.</p>	<p>for better project management, especially for information technology projects</p> <p>2.1 Identify the phases and infrastructure that makes up the IT project methodology.</p> <p>2.2 Develop and apply the concept of a project's Measurable Organisational Value (MOV).</p> <p>2.3 Describe and be able to prepare a business case.</p> <p>2.4 Distinguish between financial models and scoring models.</p> <p>2.5 Distinguish between project development and product development</p> <p>2.6 Describe the unique attributes and diverse nature of information technology projects</p> <p>2.7 Illustrate the skills and attributes of a good project manager in the information technology field</p> <p>2.8 Explain how organisations develop information technology project management methodologies to meet their needs</p> <p>2.9 Describe the project selection process as well as the Balanced Scorecard approach.</p> <p>2.10 Define what a methodology is and describe the role it serves in IT projects.</p>
<p>3 The development of the project charter, the first step in the initiating group, statement of the scope, objectives and participants in a project; developing a plan, project vision, targets, range and organization roles and baseline project plan.</p>	<p>3.1 Describe project plan development</p> <p>3.2 Explain project plan execution, its relationship to project planning, the factors related to successful results, and tools and techniques to assist in project plan execution</p> <p>3.3 Describe how software can assist in project integration management</p> <p>3.4 Define project integration management and describe its role in project plan development, project plan execution and overall change control.</p> <p>3.5 Develop a project charter and describe its relationship to the project plan.</p> <p>3.6 Identify the steps in the project planning framework and describe how this framework links the project's measurable organisational value (MOV) to the project's scope, schedule and budget.</p> <p>3.7 Analyse implementation of a formal organisation using the structural, human resources, political, and symbolic organisational frames</p> <p>3.8 Explain the differences among functional, matrix, and project organisational structures</p> <p>3.9 Explain why stakeholder management and top management commitment are critical for a project's success</p>




<p>4 The human side of Project Management; how Project Managers should focus on people rather than administrative tasks, technical personnel to achieve project success.</p>	<p>3.10 Describe the different project management processes and how they support each phase of the project life cycle.</p> <p>4.1 Define project human resource management and understand its processes</p> <p>4.2 Define key concepts for managing people by understanding the theories of Abraham Maslow, Frederick Herzberg, David McClelland, and Douglas McGregor on motivation, H. J. Thamhain and D. L. Wilemon on influencing workers, and Stephen Covey on how people and teams can become more effective</p> <p>4.3 Describe organisational planning and be able to create a project organisational chart, responsibility assignment matrix, and resource histogram</p> <p>4.4 Explain important issues involved in project staff acquisition</p> <p>4.5 Explain the concepts of resource assignments, resource loading, and resource levelling</p> <p>4.6 Explain how project management software can assist in project human resource management</p> <p>4.7 Describe an informal organisation.</p> <p>4.8 Develop a stakeholder analysis.</p> <p>4.9 Describe the difference between a work group and a team.</p> <p>4.10 Describe and apply the concept of learning cycles.</p> <p>4.11 Describe the major types of formal organisational structures: functional, pure project and matrix.</p> <p>4.12 Explain the importance of good human resource management on projects, especially on information technology projects.</p> <p>4.13 Describe the advantages and disadvantages of the functional, pure project and matrix organisational structures.</p>
<p>5 Project scope; defining the project scope; what to include in a project scope statement and writing a scope statement .</p>	<p>5.1 Describe the strategic planning process</p> <p>5.2 Explain the scope planning process and contents of a scope statement</p> <p>5.3 Describe the scope definition process and construct a work breakdown structure using the analogy, top-down, bottom-up, and mind mapping approaches</p> <p>5.4 Define the importance of scope verification and scope change control to avoid scope creep on information technology projects</p> <p>5.5 Describe how software can assist in</p>

<p>6 The Work Breakdown Structure (WBS); as a deliverable or product-oriented grouping of project work elements extremely valuable and important project management tool and Project Estimation.</p>	<p>project scope management</p> <p>5.6 Describe the difference between product scope and project scope.</p> <p>5.7 Apply several tools and techniques for defining and managing the project's scope.</p> <p>5.8 Describe the elements that make good project scope management important</p> <p>5.9 Identify the processes that support project scope management</p> <p>6.1 Explain basic project cost management principles, concepts, and terms</p> <p>6.2 Describe how resource planning relates directly to project cost management</p> <p>6.3 Explain cost estimating using definitive, budgetary, and rough order of magnitude (ROM) estimates</p> <p>6.4 Define the processes involved in cost budgeting and preparing a cost estimate for an information technology project</p> <p>6.5 Define the benefits of earned value management and project portfolio management to assist in cost control</p> <p>6.6 Describe how software can assist in project cost management</p> <p>6.7 Demonstrate how to develop a work breakdown structure (WBS).</p> <p>6.8 Describe the difference between a deliverable and a milestone.</p> <p>6.9 Describe and apply several project estimation methods.</p> <p>6.10 Describe and apply several software engineering estimation approaches.</p> <p>6.11 Explain the importance of good project cost management</p>
<p>7 Project schedule, budget, the importance of project schedules and good project time management.</p>	<p>7.1 Define activities as the basis for developing project schedules</p> <p>7.2 Explain how various tools and techniques help project managers perform activity duration estimating and schedule development</p> <p>7.3 Demonstrate using a Gantt chart for schedule planning and tracking schedule information</p> <p>7.4 Demonstrate calculating and using critical path analysis</p> <p>7.5 Describe how to use several techniques for shortening project schedules</p> <p>7.6 Explain the basic concepts behind critical chain scheduling and Program Evaluation and Review Technique (PERT)</p> <p>7.7 Describe how reality checks and people issues are involved in controlling and managing changes to the project schedule</p> <p>7.8 Describe how software can assist in project time management</p>

	<p>7.9 Describe Project Cost Management.</p> <p>7.10 Demonstrate developing Gantt charts.</p> <p>7.11 Develop project network diagrams.</p> <p>7.12 Identify a project's critical path and explain why it must be controlled and managed.</p> <p>7.13 Demonstrate developing PERT diagrams.</p> <p>7.14 Describe the concept of precedence diagramming and identify finish-to-start, start-to-start finish-to-finish, and start-to-finish activity relationships.</p> <p>7.15 Describe the various costs for determining the project's budget.</p> <p>7.16 Define what is meant by the baseline project plan.</p>
<p>8 Understand how information may be distributed to the project stakeholders and the role information technology plays to support the project communications.</p>	<p>8.1 Identify and describe project communications management.</p> <p>8.2 Describe different types of reporting tools that support the communications plan.</p> <p>8.3 Demonstrate how to apply the concept of earned value</p> <p>8.4 Describe how earned value provides a means of tracking and monitoring a project's scope, schedule, and budget.</p> <p>8.5 Explain project communication, tracking, and reporting.</p>
<p>9 The discipline of organisational change management and its role in assessing the organisation's readiness and capability to support and assimilate a change initiative.</p>	<p>9.1 Analyse management of organisational change, resistance, and conflict.</p> <p>9.2 Describe how change can be viewed as a process</p> <p>9.3 Identify the emotional responses people might have when faced with change.</p> <p>9.4 Describe the framework for managing change.</p> <p>9.5 Explain the nature of resistance and conflict and analyse the techniques for dealing with conflict and resistance.</p>
<p>10 The reasons why organisations outsource projects and project components; risks business owners who consider outsourcing IT functions need to be aware of and the rewards in return.</p>	<p>10.1 Describe project procurement management.</p> <p>10.2 Describe the processes that make up Project Procurement Management.</p> <p>10.3 Describe the general categories for procurement-type contracts.</p> <p>10.4 Define outsourcing, business process outsourcing, and off shoring.</p> <p>10.5 Define procurement, management and outsourcing.</p> <p>10.6 Describe the advantages and disadvantages of outsourcing.</p>
<p>11 Project leadership, differences between a project leader and a project manager; tasks performed by project managers and project leaders; ethics, and multicultural projects.</p>	<p>11.1 Define leadership and understand its role and importance in successfully managing IT projects.</p> <p>11.2 Describe the approaches to exemplary leadership.</p>

<p>12 Project implementation, leading and managing the application of the project implementation plan, closure, and evaluation.</p>	<p>11.3 Describe leadership styles. 11.4 Define the concept of emotional intelligence and how it can help one to become a more effective leader. 11.5 Define ethics and understand its importance in project leadership. 11.6 Identify ethical challenges that may be faced by a project leader or project team member. 11.7 Describe a process for making ethical decisions. 11.8 Describe culture and diversity as well as some of the challenges of leading and managing a multicultural project.</p> <p>12.1 Describe the tactical approaches to information implementation and installation. 12.2 Describe the processes associated with project closure to ensure that the project is closed in an orderly manner. 12.3 Identify the different project evaluations or reviews.</p>
<p>Methods of Evaluation: A 2½-hour written examination paper with five essay questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in Project Management Information Systems with a weighting of 100%.</p>	

Recommended Learning Resources: Project Management Information Systems

<p>Text Books</p>	<ul style="list-style-type: none"> • Project Management for Information Systems by James Cadle • Projects in Computing and Information Systems: A Student's Guide • Information Technology Project Management by Kathy Schwalbe
<p>Study Manuals</p> 	<p>BCE produced study packs</p>
<p>CD ROM</p> 	<p>Power-point slides</p>
<p>Software</p> 	<p>None</p>