LONDON CAPITAL COMPUTER COLLEGE

Diploma in Project Management (888) – Project Management Information Systems

Prerequisites: Knowledge of computing and management.	**Corequisites:** A pass or better at Diploma level.
Aim: The course emphasizes 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 covered. 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. Each candidate will conduct a series of case studies using Microsoft Project as project management tools. Candidates 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. It course 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. In spite of the advanced technology that surrounds computer-based information systems, IT project management in most organisations is not very disciplined. The course will give candidates an understanding of the most common processes, tools, techniques, and theories that are necessary to manage IT projects. Managing IT projects that follow both plan-driven traditional development methods as well as agile methods will be covered.	
Required Materials: Recommended Learning Resources.	**Supplementary Materials:** Lecture notes and tutor extra reading recommendations.
Special Requirements: The course requires the use of project management software.	
Intended Learning Outcomes:	**Assessment Criteria:**
1 Analyse the nature of Information Technology projects. Describe software crisis. Understand the growing need for better project management, especially for information technology projects	1.1 Explain the socio-technical, project management and knowledge management approaches that support IT PM. 1.2 Define what an IT project is and describe its attributes. 1.3 Define the discipline called project management. 1.2 Describe what project management is and discuss key elements of the project management framework 1.3 Discuss how project management relates to other disciplines 1.4 Describe the project management profession, including recent trends in project management research, certification, and software products 1.5 Describe the role and impact IT projects have on an organization. 1.6 Identify the different roles and interests of project stakeholders. 1.7 Describe the project life cycle, the systems development life cycle and their relationship.
2 Describe conceptualising and initiating	2.1 Identify the phases and infrastructure

an IT Project. Define what a methodology is and describe the role it serves in IT projects. Understand the systems view of project management and how it applies to information technology projects		that makes up the IT project methodology.
	2.2	Develop and apply the concept of a project's measurable organizational value (MOV).
	2.3	Describe and be able to prepare a business case.
	2.4	Distinguish between financial models and scoring models.
	2.5	Distinguish between project development and product development
	2.6	Discuss the unique attributes and diverse nature of information technology projects
	2.7	Illustrate the skills and attributes of a good project manager in general and in the information technology field
	2.8	Discuss how organisations develop information technology project management methodologies to meet their needs
	2.9	Describe the project selection process as well as the Balanced Scorecard approach.
3 Analyse the development of the project charter and baseline project plan. Describe the different project management processes and how they support each phase of the project life cycle. Describe an overall framework for project integration management as it relates to the other project management knowledge areas and the project life cycle	3.1	Describe project plan development
	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
	3.3	Describe integrated change control process, planning for and managing changes on information technology projects, and developing and using a change control system
	3.4	Describe how software can assist in project integration management
	3.5	Define the project management knowledge area called project integration management and describe its role in project plan development, project plan execution and overall change control.
	3.6	Develop a project charter and describe its relationship to the project plan.
	3.7	Identify the steps in the project planning framework and describe how this framework links the project's measurable organizational value (MOV) to the project's scope, schedule and budget.
	3.8	Analyse a formal organization using the structural, human resources, political, and symbolic organizational frames
	3.9	Explain the differences among functional, matrix, and project organizational structures
	3.10	Explain why stakeholder management and top management commitment are critical for a project's success
4 Identify the human side of Project Management. Describe the major types of formal organizational structures: functional, pure project and matrix. Explain the importance of good	4.1	Define project human resource management and understand its processes

human resource management on projects, especially on information technology projects. Discuss the advantages and disadvantages of the functional, pure project and matrix organizational structures.	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
	4.3	Discuss organisational planning and be able to create a project organizational chart, responsibility assignment matrix, and resource histogram
	4.4	Discuss important issues involved in project staff acquisition and explain the concepts of resource assignments, resource loading, and resource leveling
	4.5	Describe how project management software can assist in project human resource management
	4.6	Describe an informal organization.
	4.7	Develop a stakeholder analysis.
	4.8	Describe the difference between a work group and a team.
	4.9	Describe and apply the concept of learning cycles.
5 Define a project scope. Identify the processes that support project scope management. Describe the elements that make good project scope management important		
	5.1	Describe the strategic planning process
	5.2	Explain the scope planning process and contents of a scope statement
	5.3	Discuss the scope definition process and construct a work breakdown structure using the analogy, top-down, bottom-up, and mind mapping approaches
	5.4	Define the importance of scope verification and scope change control to avoid scope creep on information technology projects
	5.5	Describe how software can assist in project scope management
	5.6	Analyse initiation, planning, scope definition, scope verification and scope change control.
	5.7	Describe the difference between product scope and project scope.
	5.8	Apply several tools and techniques for defining and managing the project's scope.
6 Describe the Work Breakdown Structure (WBS) and Project Estimation. Understand the importance of good project cost management		
	6.1	Explain basic project cost management principles, concepts, and terms
	6.2	Describe how resource planning relates directly to project cost management
	6.3	Explain cost estimating using definitive, budgetary, and rough order of magnitude (ROM) estimates
	6.4	Define the processes involved in cost budgeting and preparing a cost estimate for an information technology project
	6.5	Define the benefits of earned value management and project portfolio management to assist in cost control

	6.6	Describe how software can assist in project cost management
	6.7	Develop a work breakdown structure (WBS).
	6.8	Describe the difference between a deliverable and a milestone.
	6.9	Describe and apply several project estimation methods.
	6.10	Describe and apply several software engineering estimation approaches.
7 Analyse project schedule and budget. Understand the importance of project schedules and good project time management	7.1	Define activities as the basis for developing project schedules
	7.2	Describe how project managers use network diagrams and dependencies to assist in activity sequencing
	7.3	Explain how various tools and techniques help project managers perform activity duration estimating and schedule development
	7.4	Be able to use a Gantt chart for schedule planning and tracking schedule information
	7.5	Be able to use critical path analysis
	7.6	Describe how to use several techniques for shortening project schedules
	7.7	Explain the basic concepts behind critical chain scheduling and Program Evaluation and Review Technique (PERT)
	7.8	Discuss how reality checks and people issues are involved in controlling and managing changes to the project schedule
	7.9	Describe how software can assist in project time management
	7.10	Describe Project Cost Management.
	7.11	Develop Gantt charts.
	7.12	Develop project network diagrams.
	7.13	Be able to identify a project's critical path and explain why it must be controlled and managed.
	7.14	Develop PERT diagrams.
	7.15	Describe the concept of precedence diagramming and identify finish-to-start, start-to-start finish-to-finish, and start-to-finish activity relationships.
	7.16	Describe the various costs for determining the project's budget.
	7.17	Define what is meant by the baseline project plan.
8 Discuss project communication, tracking, and reporting	8.1	Identify and describe project communications management.
	8.2	Describe different types of reporting tools that support the communications plan.
	8.3	Be able to apply the concept of earned value and discuss how earned value provides a means of tracking and monitoring a project's scope, schedule, and budget.

9 Analyse management of organisational change, resistance, and conflict	8.4	Describe how information may be distributed to the project stakeholders and the role information technology plays to support the project communications.
	9.1	Describe the discipline of organizational change management and its role in assessing the organization's readiness and capability to support and assimilate a change initiative.
	9.2	Describe how change can be viewed as a process and identify the emotional responses people might have when faced with change.
	9.3	Describe the framework for managing change.
	9.4	Be able to apply the concepts and ideas to develop a change management plan.
	9.5	Discuss the nature of resistance and conflict and analyse the techniques for dealing with conflict and resistance.
10 Define procurement, management and outsourcing	10.1	Describe project procurement management.
	10.2	Describe the processes that make up Project Procurement Management.
	10.3	Describe the general categories for procurement-type contracts.
	10.4	Define outsourcing, business process outsourcing, and off shoring.
	10.5	Describe the reasons why organizations outsource projects and project components.
	10.6	Describe the advantages and disadvantages of outsourcing.
11 Describe project leadership, ethics, and multicultural projects	11.1	Define leadership and understand its role and importance in successfully managing IT projects.
	11.2	Describe the approaches to exemplary leadership.
	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	Discuss culture and diversity as well as some of the challenges of leading and managing a multicultural project.
12 Define project implementation, closure, and evaluation	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.

Recommended Learning Resources: Project Management Information Systems

Text Books	• Project Management for Information Systems (Paperback) by James Cadle (Author), Donald Yeates. ISBN-10: 0132068583 • Projects in Computing and Information Systems: A Student's Guide (Paperback) by Christian Dawson. ISBN-10: 0321263553 • Information Technology Project Management (Paperback) by Kathy Schwalbe. ISBN-10: 0619215283
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	None