

Subject Description Form

Subject Code	ENG4001
Subject Title	Project Management
Credit Value	3
Level	4
Pre-requisite/Co-requisite/Exclusion	Nil
Objectives	<p>This subject provides students with knowledge in:</p> <ol style="list-style-type: none"> 1. project management tools in business organizations, taking into account the time-cost relationships, resources, processes, risks, the project life cycle, organization, and management principles; 2. project management methodologies and their application; 3. choosing project variables for effective project management; and 4. various developments of project management.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. demonstrate good understanding of definition of a project, the characteristics and project life cycle; b. identify appropriate project variables and practices that are applicable to engineering projects; c. perform project planning, cost/resources estimation, evaluate and monitor of project progress; and d. propose project management solutions, taking into consideration the project objectives and constraints.
Subject Synopsis/ Indicative Syllabus	<ol style="list-style-type: none"> 1. <u>Project Overview, Management Principles, and the Systems Approach</u> Characteristics of projects and project management. Management principles. Project organization. Team development. Systems concepts and principles. Conflict management. 2. <u>Project Methodologies and Planning Techniques</u> Constraints: time, cost, and technical performance. Work breakdown structure. Management of scope. Scheduling tools: Gantt charts, network analysis techniques, time-phased networks, CPA, PERT, and resource smoothing. 3. <u>Cost Estimation and Cost Control for Projects</u> Types of estimates. Budgeting project costs. Experience curve. Cost schedules and forecasts. Cost control systems. 4. <u>Evaluation and Control of Projects</u> Earned value measurement system. Managing project risks. Status reporting. Project closeout and termination.

Teaching/Learning Methodology	<p>A mixture of lectures, tutorial exercises, case studies, and laboratory work are used to deliver the various topics in this subject. Some material is covered using a problem-based format where this advances the learning objectives. Other material is covered through directed study to enhance the students' "learning to learn" ability. Some case studies are from best practices of projects, based on a literature review. They are used to integrate the topics and demonstrate to students how the various techniques are interrelated and applied in real-life situations.</p>																																											
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1" data-bbox="454 539 1418 1095"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="4">Intended subject learning outcomes to be assessed</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>1. Tutorial exercises/ written report</td> <td>10%</td> <td></td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>2. Oral presentation</td> <td>10%</td> <td></td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>3. End Term Test</td> <td>20%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>4. Written examination</td> <td>60%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Total</td> <td>100%</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Continuous assessment (1), (2), and (3): Test, written reports, oral presentation, and tutorial exercises are used to assess students' understanding and application of the knowledge that they have learnt relative to learning outcomes (a), (b) and (c).</p> <p>Written examination: questions are designed to assess learning outcomes (a), (b), (c), and (d).</p>				Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed				a	b	c	d	1. Tutorial exercises/ written report	10%		✓	✓		2. Oral presentation	10%		✓	✓		3. End Term Test	20%	✓	✓	✓		4. Written examination	60%	✓	✓	✓	✓	Total	100%				
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Student Study Effort Expected	Class contact:																																											
<ul style="list-style-type: none"> ▪ Lectures 	3 hours/week for 9 weeks		27 Hrs.																																									
<ul style="list-style-type: none"> ▪ Tutorials / Case studies 	3 hours/week for 4 weeks		12 Hrs.																																									
			39 Hrs.																																									
Other student study effort:																																												
<ul style="list-style-type: none"> ▪ Preparation for assignments, short tests, and the written examination 			79 Hrs.																																									
Total student study effort			118 Hrs.																																									

**Reading List and
References**

1. Meredith, J. R., Shafer, S. M., Mantel Jr, S. J., 2017, *Project Management: a Strategic Managerial Approach*. John Wiley & Sons.
2. Kerzner, H. 2017, *Project Management: a Systems Approach to Planning, Scheduling, and Controlling*, John Wiley & Sons.
3. Project Management Institute, 2013, *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*, Fifth Edition.
4. Smith, NJ (ed.) 2008. *Engineering Project Management*, Blackwell, Oxford

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