

## Subject Description Form

<b>Subject Code</b>	COMP 3235
<b>Subject Title</b>	Software Project Management
<b>Credit Value</b>	3
<b>Level</b>	3
<b>Pre-requisite / Co-requisite/ Exclusion</b>	Nil.
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. To provide students a systematic approach to initiate, plan, execute, control and close a software project.</li> <li>2. To develop a good understanding of the nine project management areas, and the role of a typical project manager.</li> <li>3. To equip students with understanding of the best practices, and techniques used in project management processes.</li> <li>4. To enable students to gain a good understanding of ISO 9000 and CMMI.</li> </ol>
<b>Intended Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <p><u>Professional/academic knowledge and skills</u></p> <p>(a) appreciate the importance of software project management;</p> <p>(b) apply project management techniques for information systems development;</p> <p>(c) apply the management skills to monitor and control a software project;</p> <p><u>Attributes for all-roundedness</u></p> <p>(d) work together as a team;</p> <p>(e) communicate in writing a technical document;</p> <p>(f) communicate effectively in English for general project presentation.</p>
<b>Subject Synopsis/ Indicative Syllabus</b>	<ol style="list-style-type: none"> <li>1. Project management fundamentals Attributes of project; project life cycle; project management processes; successful project manager; general management skills.</li> <li>2. Project integration management Project plan; change control; configuration management; corrective and preventive action.</li> <li>3. Project scope management Project charter; net present value; cost/benefit analysis; scope planning, definition, verification and change control.</li> </ol>

	<p>4. Project time management Project size and metrics; identifying activities; WBS; PBS; CPA; scheduling; critical chain.</p> <p>5. Project cost management Estimation techniques; earned value analysis; COCOMO; resource planning; value analysis; cost management plan, budgeting and control.</p> <p>6. Project quality management Quality model; quality definition; ISO 9001; CMMI; improvement cycle; trend analysis.</p> <p>7. Human resource management Organization structure; stakeholder analysis; team building; conflict; effective team; reward and recognition systems.</p> <p>8. Communication management Communication means; communication techniques for teams of different sizes; barriers to communication; building effective team communication; reviews; performance reporting.</p> <p>9. Risk management Different types of risk; risk response planning; risk analysis; risk monitoring and control.</p> <p>10. Procurement management Procurement planning; source selection; contract administration; contract closeout; negotiation.</p>																																																												
<p><b>Teaching/Learning Methodology</b></p>	<p>Lectures focus on introduction and explanation of key concepts and techniques. Tutorial and lab sessions provide students opportunity to practice the techniques and tools presented in class. Assignments and project allow students to deepen their understanding of the concepts taught in class and apply the theory and techniques to software process and project management. Students will be encouraged to work in groups to share and present ideas, review other's work, and develop teamwork skill.</p>																																																												
<p><b>Assessment Methods in Alignment with Intended Learning Outcomes</b></p>	<table border="1"> <thead> <tr> <th data-bbox="437 1518 769 1688" rowspan="2">Specific assessment methods/tasks</th> <th data-bbox="774 1518 927 1688" rowspan="2">% weighting</th> <th colspan="6" data-bbox="932 1518 1477 1621">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th data-bbox="932 1628 1018 1688">a</th> <th data-bbox="1023 1628 1109 1688">b</th> <th data-bbox="1114 1628 1200 1688">c</th> <th data-bbox="1204 1628 1291 1688">d</th> <th data-bbox="1295 1628 1382 1688">e</th> <th data-bbox="1386 1628 1473 1688">f</th> </tr> </thead> <tbody> <tr> <td data-bbox="437 1695 769 1756">1. Assignments</td> <td data-bbox="774 1695 927 2029" rowspan="4">55%</td> <td data-bbox="932 1695 1018 1756">✓</td> <td data-bbox="1023 1695 1109 1756">✓</td> <td data-bbox="1114 1695 1200 1756">✓</td> <td data-bbox="1204 1695 1291 1756"></td> <td data-bbox="1295 1695 1382 1756"></td> <td data-bbox="1386 1695 1473 1756"></td> </tr> <tr> <td data-bbox="437 1762 769 1823">2. Lab exercises</td> <td data-bbox="932 1762 1018 1823">✓</td> <td data-bbox="1023 1762 1109 1823">✓</td> <td data-bbox="1114 1762 1200 1823">✓</td> <td data-bbox="1204 1762 1291 1823"></td> <td data-bbox="1295 1762 1382 1823"></td> <td data-bbox="1386 1762 1473 1823"></td> </tr> <tr> <td data-bbox="437 1830 769 1890">3. Project</td> <td data-bbox="932 1830 1018 1890"></td> <td data-bbox="1023 1830 1109 1890"></td> <td data-bbox="1114 1830 1200 1890"></td> <td data-bbox="1204 1830 1291 1890">✓</td> <td data-bbox="1295 1830 1382 1890">✓</td> <td data-bbox="1386 1830 1473 1890">✓</td> </tr> <tr> <td data-bbox="437 1897 769 1957">4. Mid-term</td> <td data-bbox="932 1897 1018 1957"></td> <td data-bbox="1023 1897 1109 1957">✓</td> <td data-bbox="1114 1897 1109 1957">✓</td> <td data-bbox="1114 1897 1200 1957">✓</td> <td data-bbox="1204 1897 1291 1957"></td> <td data-bbox="1295 1897 1382 1957"></td> <td data-bbox="1386 1897 1473 1957"></td> </tr> <tr> <td data-bbox="437 1964 769 2024">5. Examination</td> <td data-bbox="774 1964 927 2024">45%</td> <td data-bbox="932 1964 1018 2024">✓</td> <td data-bbox="1023 1964 1109 2024">✓</td> <td data-bbox="1114 1964 1200 2024">✓</td> <td data-bbox="1204 1964 1291 2024"></td> <td data-bbox="1295 1964 1382 2024"></td> <td data-bbox="1386 1964 1473 2024"></td> </tr> <tr> <td data-bbox="437 2031 769 2092">Total</td> <td data-bbox="774 2031 927 2092">100 %</td> <td colspan="6" data-bbox="932 2031 1477 2092"></td> </tr> </tbody> </table>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e	f	1. Assignments	55%	✓	✓	✓				2. Lab exercises	✓	✓	✓				3. Project				✓	✓	✓	4. Mid-term		✓	✓	✓				5. Examination	45%	✓	✓	✓				Total	100 %						
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	<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Assignments, project and mid-term test act as a measure on the understandings of the students on the basic concepts of the software project management.</p> <p>Project will be used to measure the understandings of the students about the current practice in process and project management. The students can improve their presentation and communication skills through the project presentation, and practice team work. Students can also develop their analytic and problem solving skills.</p> <p>Examination will be used as an overall measure of the understandings of the students on software project management.</p>	
<b>Student Study Effort Expected</b>	Class contact:	
	<ul style="list-style-type: none"> <li>▪ Lecture</li> </ul>	39 Hrs.
	<ul style="list-style-type: none"> <li>▪ Tutorial/Lab</li> </ul>	0 Hrs.
	Other student study effort:	
	<ul style="list-style-type: none"> <li>▪ Work on assignments and project, self study</li> </ul>	66 Hrs.
	Total student study effort	105 Hrs.
<b>Reading List and References</b>	<p>Textbooks:</p> <ol style="list-style-type: none"> <li>1. Cadle, J., Yeates, D., Project Management for Information Systems, Prentice Hall, 2006.</li> </ol> <p>Reference Books:</p> <ol style="list-style-type: none"> <li>1. A Guide to the Project Management Body of Knowledge, Project Management Institute, 2008.</li> <li>2. Hughes, B., Cotterell, M., Software Project Management, McGraw-Hill, 2009.</li> <li>3. ISO standard. <a href="http://www.iso.ch">http://www.iso.ch</a></li> <li>4. SEI.CMMI Tutorial, <a href="http://www.sei.cmu.edu/cmml/publications/stc.presentations/tutorial.html">www.sei.cmu.edu/cmml/publications/stc.presentations/tutorial.html</a></li> </ol>	