

## Subject Description Form

<b>Subject Code</b>	COMP5134																										
<b>Subject Title</b>	Information System Development with Object-Oriented Methods																										
<b>Credit Value</b>	3																										
<b>Level</b>	5																										
<b>Pre-requisite/ Exclusion</b>	Nil																										
<b>Objectives</b>	<p>The objectives of this subject are to:</p> <ol style="list-style-type: none"> <li>1. introduce IS development life cycle including information requirements determination, modelling, analysis and design, and implementation;</li> <li>2. enable students to understand, apply and be able to distinguish between structured and object-oriented development methods;</li> <li>3. enable the students with an in-depth understanding of the advanced concepts in the object-oriented approach to information system development.</li> </ol>																										
<b>Intended Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> <li>a) analyze business problems using the object-oriented approach;</li> <li>b) design an information system solution to business problems using the OO approach; and</li> <li>c) articulate the strengths and weaknesses of OO solutions to business problems.</li> </ol>																										
<b>Subject Synopsis/ Indicative Syllabus</b>	<ul style="list-style-type: none"> <li>• <b>Introduction to System Development:</b> Systems Life Cycle, Information Requirement Analysis, Systems Analysis/Design, Implementation, Testing, Requirements Engineering.</li> <li>• <b>Development Method:</b> Agile, Iterative Development, UML</li> <li>• <b>OO Method:</b> Inheritance, Polymorphism, Design Patterns</li> </ul>																										
<b>Teaching/Learning Methodology</b>	Class activities including - lecture, tutorial, lab, workshop seminar where applicable																										
<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Specific Assessment Methods/Tasks</th> <th rowspan="2">% weighting</th> <th colspan="3">Intended subject learning outcomes to be assessed</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>Assignments, Tests &amp; Projects</td> <td style="text-align: center;">55</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> </tr> <tr> <td>Final Examination</td> <td style="text-align: center;">45</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: center;"><b>100</b></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Specific Assessment Methods/Tasks	% weighting	Intended subject learning outcomes to be assessed			a	b	c	Assignments, Tests & Projects	55	✓	✓	✓	Final Examination	45	✓	✓	✓	<b>Total</b>	<b>100</b>			
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<b>Student study effort expected</b>	<p><b>Class Contact:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Class activities (lecture, tutorial, lab)</td> <td style="text-align: center;">39 hours</td> </tr> </table> <p><b>Other student study effort:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Assignments, Quizzes, Projects, Exams</td> <td style="text-align: center;">65 hours</td> </tr> <tr> <td><b>Total student study effort</b></td> <td style="text-align: center;"><b>104 hours</b></td> </tr> </table>				Class activities (lecture, tutorial, lab)	39 hours	Assignments, Quizzes, Projects, Exams	65 hours	<b>Total student study effort</b>	<b>104 hours</b>																	
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<b>Reading list and references</b>	(1) Craig Larman, 2004, Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and																										

	<p>Iterative Development, Prentice Hall</p> <p>(2) Bennett, S., Ray, Farmer, R., 2010, Object-Oriented Systems Analysis and Design Using UML, 4<sup>th</sup> Ed, McGraw-Hill.</p>
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