

### Subject Description Form

<b>Subject Code</b>	COMP4913
<b>Subject Title</b>	Capstone Project
<b>Credit Value</b>	6
<b>Level</b>	4
<b>Pre-requisite/ Co-requisite</b>	Nil
<b>Exclusion</b>	Any other equivalent capstone project
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Provide a student the opportunities to apply and integrate his/her knowledge acquired throughout the undergraduate study</li> <li>• Develop the capabilities of a student in analyzing and solving complex and possibly real-life problems</li> <li>• Train students with skills on systematic development and documentation of a significant piece of work</li> </ul>
<b>Intended Subject Learning Outcomes</b>	<p><b>Upon completion of the subject, students will be able to:</b></p> <p><u>Category A: Professional/academic knowledge and skills</u></p> <ol style="list-style-type: none"> <li>1. Conduct literature survey to locate for materials and sources relevant to the selected problem area</li> <li>2. Understand the materials obtained and connect the materials with the problem to be solved</li> <li>3. Define and specify the problem precisely</li> <li>4. Assimilate and apply the knowledge learnt in generating good solutions to the problem</li> <li>5. Think critically the formulation of alternative models and solutions to the problem, in the analysis of approaches to the solution and their implementation</li> <li>6. Evaluate the final outcome in an objective manner</li> </ol> <p><u>Category B: Attributes for all-roundedness</u></p> <ol style="list-style-type: none"> <li>7. Improve presentation and communicate skills via oral presentation;</li> <li>8. Enhance technical report writing skills with proper organization of materials</li> <li>9. Develop the ability to learn independently and to find/integrate information from different sources required in solving real-life problems</li> <li>10. Manage the project efficiently and effectively through the supervision of supervisor(s)</li> <li>11. Work collaboratively with related parties (e.g. vendors, sponsor company, technical support staff, team-partners, research students, etc.)</li> </ol>
<b>Subject Synopsis/ Indicative Syllabus</b>	<p><b>Syllabus:</b></p> <ol style="list-style-type: none"> <li>1. In-depth study of a topic typically proposed by the supervisor</li> <li>2. Project meeting and planning</li> <li>3. Proposal writing</li> <li>4. Regular progress checking and reporting</li> <li>5. Project documentation</li> <li>6. Presentation and demonstration</li> </ol> <p>Capstone Projects are normally proposed by academic staff of the department or in conjunction with external organizations or other departments in the university. However, students may propose a topic along an area of their interest contingent upon the condition that they could find an interested academic staff to supervise the project. Each student will be assigned a supervisor who is in charge of the entire project.</p>

<b>Teaching/Learning Methodology</b>	The capstone project spans across the academic year for two consecutive semesters. The teaching/learning activities include regular project meetings with the supervisor and/or other involved parties, guided study of project materials, independent project development work and other project management tasks.																																																
<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	<table border="1" data-bbox="496 331 1466 586"> <thead> <tr> <th data-bbox="496 331 730 488" rowspan="2">Specific Assessment Methods/Tasks</th> <th data-bbox="730 331 890 488" rowspan="2">% Weighting</th> <th colspan="11" data-bbox="890 331 1466 421">Intended Subject Learning Outcomes to be Assessed</th> </tr> <tr> <th data-bbox="890 421 938 488">1</th> <th data-bbox="938 421 986 488">2</th> <th data-bbox="986 421 1034 488">3</th> <th data-bbox="1034 421 1082 488">4</th> <th data-bbox="1082 421 1129 488">5</th> <th data-bbox="1129 421 1177 488">6</th> <th data-bbox="1177 421 1225 488">7</th> <th data-bbox="1225 421 1273 488">8</th> <th data-bbox="1273 421 1321 488">9</th> <th data-bbox="1321 421 1369 488">10</th> <th data-bbox="1369 421 1466 488">11</th> </tr> </thead> <tbody> <tr> <td data-bbox="496 488 730 586">Continuous Assessment</td> <td data-bbox="730 488 890 586">100%</td> <td data-bbox="890 488 938 586">✓</td> <td data-bbox="938 488 986 586">✓</td> <td data-bbox="986 488 1034 586">✓</td> <td data-bbox="1034 488 1082 586">✓</td> <td data-bbox="1082 488 1129 586">✓</td> <td data-bbox="1129 488 1177 586">✓</td> <td data-bbox="1177 488 1225 586">✓</td> <td data-bbox="1225 488 1273 586">✓</td> <td data-bbox="1273 488 1321 586">✓</td> <td data-bbox="1321 488 1369 586">✓</td> <td data-bbox="1369 488 1466 586">✓</td> </tr> </tbody> </table> <p data-bbox="496 618 1466 680"><b>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</b></p> <p data-bbox="496 712 1466 833">The capstone project will be assessed by the supervisor and other assessors. Attributes to be assessed include, but not limited to, Problem Identification, Problem Solving, Communication and Presentation, Project Management, and Self-Discipline.</p> <p data-bbox="496 864 1466 1137">Capstone Projects should be problem-oriented and there is no restriction to the nature of the problem except that it should be relevant to the student's study programme. The project could be practical, academic or a hybrid in which the student is encouraged but not constrained to have some original contributions. Each student has to submit a proposal, a mid-term checkpoint progress report and a final report. The proposal must be approved by the supervisor before the student can proceed to the capstone project. An oral presentation and demonstration is essential at the end of the project. A mid-term presentation may also be required for proper continuous assessment.</p>												Specific Assessment Methods/Tasks	% Weighting	Intended Subject Learning Outcomes to be Assessed											1	2	3	4	5	6	7	8	9	10	11	Continuous Assessment	100%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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<b>Student Study Effort Expected</b>	<p data-bbox="496 1173 1466 1209"><b>Class contact (time-tabled):</b></p> <table border="1" data-bbox="496 1218 1466 1281"> <tr> <td data-bbox="496 1218 1203 1281">• Lecture</td> <td data-bbox="1203 1218 1466 1281">0 Hours</td> </tr> </table> <p data-bbox="496 1299 1466 1335"><b>Other student study effort:</b></p> <table border="1" data-bbox="496 1344 1466 1469"> <tr> <td data-bbox="496 1344 1203 1469">• Searching and reading materials, meeting with supervisor / others, design and system development, testing, documentation, presentation, etc.</td> <td data-bbox="1203 1344 1466 1469">210 Hours</td> </tr> </table> <p data-bbox="496 1487 1466 1523"><b>Total student study effort: 210 Hours</b></p>												• Lecture	0 Hours	• Searching and reading materials, meeting with supervisor / others, design and system development, testing, documentation, presentation, etc.	210 Hours																																	
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<b>Reading List and References</b>	<p data-bbox="496 1559 1466 1594"><b>Reference Books:</b></p> <ol data-bbox="496 1630 1466 2123" style="list-style-type: none"> <li data-bbox="496 1630 1466 1693">1. Kumar, R. Research Methodology: A Step-by-step Guide for Beginners, Third Edition, SAGE Publications, 2011.</li> <li data-bbox="496 1693 1466 1756">2. Burns, R.B. Introduction to Research Methods, Fourth Edition, SAGE Publications, 2000.</li> <li data-bbox="496 1756 1466 1845">3. Roberts, C.M. The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation, Third Edition, Corwin Press, 2007.</li> <li data-bbox="496 1845 1466 1908">4. Mauch, J.E., Park, N. Guide to the Successful Thesis and Dissertation: A Handbook for Students and Faculty, Fifth Edition, Marcel Dekker, 2003.</li> <li data-bbox="496 1908 1466 1971">5. Rudestam, K.E., Newton, R.R. Surviving Your Dissertation: A Comprehensive Guide to Content and Process, Second Edition, Sage Publications, 2001.</li> <li data-bbox="496 1971 1466 2033">6. Garson, G.D. Guide to Writing Empirical Papers, Theses and Dissertations, Marcel Dekker, 2002.</li> <li data-bbox="496 2033 1466 2096">7. Oshima, A. Writing Academic English, Fourth Edition, Pearson Longman, 2006.</li> <li data-bbox="496 2096 1466 2123">8. APA. Publication Manual of The American Psychological Association, Sixth</li> </ol>																																																

	<p>Edition, American Psychological Association, 2010.</p> <p>9. Szuchman, L.T. Writing with Style: APA Style Made Easy, Fifth Edition, Wadsworth/Cengage Learning, 2011.</p> <p>10. Statistics, simulation, programming, and relevant books.</p> <p>11. ACM and IEEE magazines, Transactions and Journals.</p> <p>12. Other International Journals.</p> <p>13. Relevant conference proceedings and magazines (including ACM and IEEE conferences).</p> <p>14. Technical reports from universities and major companies.</p>
<b>Last Updated</b>	July 2016
<b>Prepared by</b>	COMP Department