

### Subject Description Form

<b>Subject Code</b>	COMP4512
<b>Subject Title</b>	Intellectual Property Protection and Management
<b>Credit Value</b>	3
<b>Pre-requisite / Co-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 to students the management and protection of intellectual property in this knowledge-based society from the legal, technical and business prospective, with emphasis on the technical prospective</li> <li>2. equip students with knowledge of value of innovation and value of protection</li> <li>3. introduce to students various techniques for digital right management</li> </ol>
<b>Intended Subject Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <p><u>Professional/Academic Knowledge and Skills</u></p> <ol style="list-style-type: none"> <li>(1) understand the value of intellectual property and their protection;</li> <li>(2) understand various measures in the protection of digital content;</li> <li>(3) use current technologies and tools for the practice of software protection;</li> </ol> <p><u>Attributes for All-Roundness</u></p> <ol style="list-style-type: none"> <li>(4) recognise the need for continuing development;</li> <li>(5) have an understanding of professional, ethical and legal issues and responsibilities in the use of digital content</li> </ol>
<b>Contribution of the Subject to the Attainment of the Programme Outcomes</b>	<p>Programme Outcome 5: this subject contributes to the knowledge of tools and techniques necessary to digital right management.</p> <p>Programme Outcome 7: this subject empowers the students to understand the ethical and legal issues and responsibilities in the use of digital contents</p> <p>Programme Outcome 10: this subject help students to recognise the need for continuing professional development</p>
<b>Subject Synopsis/ Indicative Syllabus</b>	<ul style="list-style-type: none"> <li>● Overview of Intellectual Property Protection and Management</li> </ul> <p>IP management prospective: legal, business and technical; IP acquisition: purchase, JV, strategic alliances, licenses, patent pooling; the value of IP in business strategy; the law (Copyright Acts) and economics governing intellectual property protection (secrecy and patent), the use of I.P. in the digital content industry,</p>

	<ul style="list-style-type: none"> <li>● Intellectual Property Protection Copyright, related rights; trademarks and patents; problem of IP theft and their solutions</li> <li>● Digital Right Management Digital rights management in different scenarios including computer software, documents, e-books, films, music and television. Also include different generations of DRM software and their limitations.</li> <li>● Common DRM Techniques Restrictive Licensing Agreements; Software Obfuscation and Encryption; trusted hardware/ trusted computing; reverse engineering; digital watermarking; steganography; traitor-tracing techniques in encryption.</li> <li>● Optional Topics – Opposition to DRM; Alternatives to DRM; DRM system in practice (Adobe Adept DRM, Apple FairPlay, Ubisoft Uplay, etc.)</li> </ul>																																		
	<p>During the lectures, students will come across the common concepts and theories. Those concepts and theories would be further explained with reference to case studies in the tutorials.</p>																																		
<p><b>Assessment Methods in Alignment with Intended Subject Learning Outcomes</b></p>	<table border="1" data-bbox="501 1003 1385 1413"> <thead> <tr> <th rowspan="2">Specific Assessment Methods/Tasks</th> <th rowspan="2">% Weighting</th> <th colspan="7">Intended Subject Learning Outcomes to be Assessed (Please tick as appropriate)</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Continuous Assessment</td> <td>55</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Final Examination</td> <td>45</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table> <p>Types of assessments included assignments, project, test and examination. Assignments are designed to reinforce the concepts and theories learned in the lecture, by solving bigger problems. Project is used to develop students' analytic and problem solving skills by developing a study report. Test and examination are used to assess independent problem solving and critical thinking skills.</p>	Specific Assessment Methods/Tasks	% Weighting	Intended Subject Learning Outcomes to be Assessed (Please tick as appropriate)							1	2	3	4	5			Continuous Assessment	55	✓	✓	✓	✓	✓			Final Examination	45	✓	✓	✓	✓	✓		
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<p><b>Reading List and</b></p>	<p>Reference Books:</p> <ol style="list-style-type: none"> <li>1. Digital Rights Management: Business and Technology, Bill</li> </ol>																																		

<b>References</b>	Rosenblatt, M&T Press, ISBN: 0764548891 2. Surreptitious Software: Obfuscation, Watermarking, and Tamper-proofing for Software Protection, Christian Collberg, Addison-Wesley Professional, ISBN: 0321549252
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