Subject Description Form

Subject Code	COMP4512
Subject Title	Intellectual Property Protection and Management
Credit Value	3
Level	4
Pre-requisite / Co-requisite/ Exclusion	Nil
Objectives	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 2. Equip students with knowledge of value of innovation and value of protection 3. Introduce to students various techniques for digital right management
Intended Subject Learning Outcomes	**Upon completion of the subject, students will be able to:** Category A: Professional/academic knowledge and skills 1. Understand the value of intellectual property and their protection 2. Understand various measures in the protection of digital content 3. Use current technologies and tools for the practice of software protection Category B: Attributes for all-roundedness 4. Recognise the need for continuing development 5. Have an understanding of professional, ethical and legal issues and responsibilities in the use of digital content
Subject Synopsis/ Indicative Syllabus	**Syllabus:** 1. Overview of Intellectual Property Protection and Management 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, 2. Intellectual Property Protection Copyright, related rights; trademarks and patents; problem of IP theft and their solutions 3. 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. 4. Common DRM Techniques Restrictive Licensing Agreements; Software Obfuscation and Encryption; trusted hardware/ trusted computing; reverse engineering; digital watermarking; steganography; traitor-tracing techniques in encryption. 5. Information Governance (IG) Information Governance concepts, definitions and principles; differences between IG, IT Governance and Data Governance; IG risk planning and management; IG for delivery platforms. 6. Optional Topics – Opposition to DRM; Alternatives to DRM; DRM system in practice (Adobe Adept DRM, Apple FairPlay, Ubisoft Uplay, etc.)

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<tr><td></td><td>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.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Subject Learning Outcomes</td><td>
<table>
<tr><th rowspan="2">Specific Assessment Methods/Tasks</th><th rowspan="2">% Weighting</th><th colspan="5">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></tr>
<tr><td>1. Continuous Assessment</td><td>55%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>2. Examination</td><td>45%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Total</td><td>100%</td><td colspan="5"></td></tr>
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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.
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<tr><td>Student Study Effort Expected</td><td>
<table>
<tr><td>Class contact:</td><td></td></tr>
<tr><td>• Lecture</td><td>39 Hours</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>• Assignments, project, self-study, text and exam preparation</td><td>66 Hours</td></tr>
<tr><td>Total student study effort:</td><td>105 Hours</td></tr>
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</td></tr>
<tr><td>Reading List and References</td><td>Reference Books:

1. Bill Rosenblatt, Digital Rights Management: Business and Technology, M&T Press, 2001.
2. Christian Collberg, Surreptitious Software: Obfuscation, Watermarking, and Tamper-proofing for Software Protection, Addison-Wesley Professional, 2009.
3. Robert F. Smallword, Information Governance: Concepts, Strategies, and Best Practices, Wiley, 2014.</td></tr>
<tr><td>Last Updated</td><td>July 2016</td></tr>
<tr><td>Prepared by</td><td>Dr Allen Au (COMP Department)</td></tr>
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