Subject Description Form

Subject Code	COMP 5322
Subject Title	Internet Computing and Applications
Credit Value	3
Level	5
Pre-requisite/ Exclusion	Prerequisite: Nil Exclusion: COMP5321 Enterprise Web and Internet Computing for Managers
Objectives	The objectives of this subject are to enable students: 1. to study the impact of Internet in facilitating a truly distributed, wide area and highly accessible computing environment; 2. to explore various web-related technologies and to gain appreciative knowledge of how these technologies synergize with one another to enable ubiquitous access of information; 3. to examine the analysis, design and implementation techniques required to develop the network, enterprise and Internet based information systems. In also covers the managerial perspective of Internet Computing and how this evolving technology will impact future enterprise e-solution.
Intended Learning Outcomes	After completing this subject, students should be able to: a) gain a good overall understanding and appreciation of technologies encompassing Internet Computing that will equip them with the skill sets to plan, design and formulate best solutions for the deployment of state-of-the-art web-based information systems; b) critically assess the problems and issues surrounding the challenges presented to them. In the process of formulating a holistic solution to the problems, students are taught the skill sets to incrementally assess the suitability of various technologies; and c) understand the core concepts that underpin Internet Computing that will provide them with the necessary skill sets to acquire further knowledge as the technology continues to evolve.
Subject Synopsis/ Indicative Syllabus	**Internet Computing for Enterprise IS** • Internet technology for enterprise IS • Intranet vs Internet • Network infrastructure and support for internet computing. • Network security. **Web-based Client/Server Computing** • Revolution of Web as the intergalactic client/server internet computing platform. Web protocols and hypertext technology. HTTP data representation and response. Interactive Web-based client/server. • Different technologies involved in Web programming and how they work together. Scripting with HTML, CGI programming and Java Servlet appraoches to creating high-quality Web sites.

<table>
<tr><td></td><td>Web security: SSL
• Web database connectivity and network interface
Future of Web and Internet Computing
• Next generation web standards: XML
• General overview of XML and its application. XML Namespaces, Document type definitions, XSL.
• Processing XML using DOM, SAX.
• Developing enterprise XML-based web applications</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>class activities including - lecture, tutorial, lab, workshop seminar where applicable</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific Assessment Methods/Tasks</td><td rowspan="2">% weighting</td><td colspan="3">Intended subject learning outcomes to be assessed</td></tr>
<tr><td>a</td><td>b</td><td>c</td></tr>
<tr><td>Assignments, Tests & Projects</td><td>55</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Final Examination</td><td>45</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Total</td><td>100</td><td colspan="3"></td></tr>
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<tr><td rowspan="5">Student study effort expected</td><td colspan="2">Class Contact:</td></tr>
<tr><td>Class activities (lecture, tutorial, lab)</td><td>39 hours</td></tr>
<tr><td colspan="2">Other student study effort:</td></tr>
<tr><td>Assignments, Quizzes, Projects, Exams</td><td>65 hours</td></tr>
<tr><td>Total student study effort</td><td>104 hours</td></tr>
<tr><td>Reading list and references</td><td>(1) Marty Hall, Core Web Programming, Prentice-Hall, 2001

(2) Balachander Krishnamurthy et. al., Web Protocols and Practice, Addison Wesley, 2001

(3) Robert Orfali et. al., Client/Server Survival Guide, 3rd Edition, Wiley, 1999</td></tr>
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