

SWEN90002 Engineering for Internet Applications

Credit Points:	12.5								
Level:	9 (Graduate/Postgraduate)								
Dates & Locations:	This subject is not offered in 2016.								
Time Commitment:	Contact Hours: 36 hours, comprising of one 1-hour lecture and one 2-hour workshop per week Total Time Commitment: 200 hours								
Prerequisites:	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>COMP90041 Programming and Software Development</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	COMP90041 Programming and Software Development	Semester 1, Semester 2	12.50
Subject	Study Period Commencement:	Credit Points:							
COMP90041 Programming and Software Development	Semester 1, Semester 2	12.50							
Corequisites:	None								
Recommended Background Knowledge:	Familiarity with software development for internet applications.								
Non Allowed Subjects:	Students cannot enrol in and gain credit for this subject and: <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>SWEN90007 Software Design and Architecture</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	SWEN90007 Software Design and Architecture	Semester 2	12.50
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Core Participation Requirements:	<p><p>For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.</p> <p>It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability</p> </p>								
Contact:	email: aharwood@unimelb.edu.au (mailto:aharwood@unimelb.edu.au)								
Subject Overview:	<p>AIMS</p> <p>The subject aims to introduce a wide variety of technologies, techniques, engineering design patterns and performance methodology that enable the development of complex Web applications.</p> <p>INDICATIVE CONTENT</p> <p>Topics covered include: engineering design patterns for Enterprise applications, Apache Tomcat and Eclipse J2EE, servlets, JSP, deploying applications to a virtual server, database integration, cookies, JSON, performance testing, JMeter, JavaScript, AJAX, jQuery, Web Sockets, WebGL.</p>								
Learning Outcomes:	<p>INTENDED LEARNING OUTCOMES (ILO)</p> <p>On completion of this subject the student is expected to:</p> <ol style="list-style-type: none"> 1 Become familiar with numerous technologies and design patterns for building internet applications 2 Be able to critically analyse a given approach/pattern 3 Work in groups to develop complex software 								
Assessment:	Intended Learning Outcomes (ILOs) 2 and 3 are addressed by Project work of approximately 120 hours of work (40%), which involves extensive software development and report writing in								

	<p>small groups of 2 to 3 students. Project work is assessed in stages throughout the semester, with half of the work typically due in Week 8 and the remaining work due in Week 12 ILOs 1 and 3 are addressed by Computer laboratory exercises requiring approximately 60 hours of work (20%), which involves both new material not covered in lectures and also reinforcing concepts from the lectures. Students work in groups of 2 for a majority of the laboratory exercises. There are 10 laboratory exercises to complete on a weekly basis ILOs 1 and 2 are addressed by one end-of-semester examination of 2 hours in duration (40%). Hurdle requirement: To pass the subject, students must obtain at least: 50% overall 20/40 in the Project work 10/20 in the Computer laboratory work 20/40 in the end-of-semester written examination</p>
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<p>On completion of this subject students should have the following skills:</p> <ul style="list-style-type: none"> # Ability to undertake problem identification, formulation and solution # Capacity for independent critical thought, rational inquiry and self-directed learning # Profound respect for truth and intellectual integrity, and for the ethics of scholarship
Notes:	<p>LEARNING AND TEACHING METHODS</p> <p>The subject will be delivered through a combination of lectures, computer labs and project work. The computer labs provide extensive hands-on experience with Internet technologies. The project work involves developing a Web application, undertaking performance measurements, and writing a report.</p> <p>INDICATIVE KEY LEARNING RESOURCES</p> <p>Students will have access to lecture notes and lecture slides. The subject LMS site also contains links to recommended literature and current survey papers of distributed system principles and paradigms. Students will work in computer labs and have access to virtual machines.</p> <p>CAREERS / INDUSTRY LINKS</p> <p>The subject provides the fundamentals in distributed systems that support a career in areas such as Software Developer, Systems Engineer, Project Manager, Web Developer, Analyst, Linux Administrator, Web Systems Administrator, Solutions Designer, UI Developer</p> <p>Students will have access to lecture notes and lecture slides. The subject LMS site also contains links to recommended literature and current survey papers of distributed system principles and paradigms. Students will work in computer labs and have access to virtual machines.</p>
Related Course(s):	<p>Master of Information Technology Master of Information Technology Master of Information Technology Master of Philosophy - Engineering</p>
Related Majors/Minors/ Specialisations:	<p>Computer Science Computer Science MIT Computing Specialisation MIT Distributed Computing Specialisation MIT Health Specialisation MIT Spatial Specialisation</p>