

## ELEN90006 Internet Engineering

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	This subject is not offered in 2013.
<b>Time Commitment:</b>	Contact Hours: one -3 hour lecture per week Total Time Commitment: Estimated 120 hours.
<b>Prerequisites:</b>	4-year Electrical Engineering degree or equivalent.
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>
<b>Contact:</b>	Email: William Shieh <a href="mailto:shiehw@unimelb.edu.au">shiehw@unimelb.edu.au</a> ( <a href="https://mce_host/faces/htdocs/shiehw@unimelb.edu.au">https://mce_host/faces/htdocs/shiehw@unimelb.edu.au</a> )
<b>Subject Overview:</b>	<p>This subject explores current and emerging Internet technology, and the delivery of solutions to Customers. The topics include:</p> <ul style="list-style-type: none"> <li># Basics of packet transmission and switching</li> <li># Internet Protocol Suite – both current practice and emerging technologies</li> <li># The operation of applications including Domain Name System, World Wide Web, file transfer, email, video, voice, ecommerce, Web2.0 and P2P.</li> <li># The ability of current (and likely future) Internet technologies to deliver satisfactory customer solutions with respect to Management, performance, and Security</li> <li># Design of services to meet Performance and Security requirements, as well as management to address operational problem</li> </ul>
<b>Objectives:</b>	<p>On Completion of this subject students should be able to:</p> <ul style="list-style-type: none"> <li># Prepare themselves for a responsible position in industry.</li> <li># Develop comprehensive understanding of Internet technologies and how they can be applied to meet customer requirements.</li> </ul>
<b>Assessment:</b>	Assessment will be based on a Project (team work) and a Final Examination. Team Seminar on Project: 5% (group mark); Written Report on Project. Maximum 1500 words per student: 25% (group mark); Formally supervised, 3-hour written examination at end of semester: 70% (end of semester). This final exam is a hurdle. A student must pass the exam to pass the subject.
<b>Prescribed Texts:</b>	Due to the breadth of the subject and rapid developments, no single text is prescribed. Internet resources will be recommended for each topic.
<b>Recommended Texts:</b>	Douglas E. Comer and Ralph Droms, "Computer Networks and Internets", Prentice Hall Behrouz A. Forouzan, "TCP/IP Protocol Suite"
<b>Breadth Options:</b>	This subject is not available as a breadth subject.

<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<p>On completion of this subject, the students should have developed:</p> <ul style="list-style-type: none"><li># Problem solving and analytical skills,</li><li># Critical and creative thinking, with an aptitude for continued self-directed learning;</li><li># Sense of intellectual curiosity;</li><li># Ability to interpret data and research results;</li><li># Ability to learn in a range of ways, including through information and communication technologies;</li><li># Capacity to confront unfamiliar problems;</li><li># Ability to evaluate and synthesise the research and professional literature;</li><li># Ability to develop models of practical applications and evaluate their performance by rigorous analytical means</li></ul>
<b>Related Course(s):</b>	Master of Software Systems Engineering Master of Telecommunications Engineering Postgraduate Certificate in Engineering