ELEN90008 Signalling and Network Management

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus. On Campus.
Time Commitment:	Contact Hours: one 3- hours lecture per week Total Time Commitment: Estimated total time commitment of 120 hours.
Prerequisites:	4-year Electrical Engineering degree or equivalent.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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: http://www.services.unimelb.edu.au/disability/
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Subject Overview:	This unit will provide students with a practical understanding of the Telecommunication Management Network (TMN) framework, modern signalling systems (SS7 and SIP), and the network numbering and addressing schemes that underpin management of, and signalling for, telecommunications services.
Objectives:	On completion of this subject student should: # Understand the principles of access and network signalling in traditional and developing telecommunication networks, and the principles of management of modern telecommunications networks and services. # Demonstrate an ability to apply practical aspects of signalling systems (SS7, client-server IP (SIP) and peer-to-peer IP (Skype)), the industry best-practice for operations of Internet and circuit-switched networks, and network numbering and addressing schemes that underpin management of, and signalling for,telecommunication services.
Assessment:	A 3 hour final written examination (50%) to be held at end of semester.To pass the subject as a whole a student must obtain a result of at least 50% in the final written examination. A Network

	Management project (15%), no more than 1000 words, due towards the end of semester;A Signalling Assignment (35%), no more than 3000 words, due towards the end of semester.
Prescribed Texts:	None
Recommended Texts:	Additional Reading: • John G. Van Bosse, "Signalling in Telecommunication Networks", (Wiley Series in Telecommunications and Signal Processing), John Wiley & Sons, ISBN 047 1573779. • Uyless D. Black, "Isdn & Ss7: Architectures for Digital Signalling Networks", (Prentice Hall Series in Advanced Communications Technologies), Prentice Hall, ISBN 0132591936. • Travis Russell, "Signalling System 7" (Telecommunications), 2nd edition, McGraw Hill, ISBN 0070580324. • Igor Faynberg (Editor), "Intelligent Network Standards: Their Application to Services, (McGraw Hill Series on Telecommunications), McGraw Hill, ISBN 0070214220. • Haojin Wang "Telecommunications Network Management" McGraw Hill Telecommunications • William Stallings, "SNMP, SNMPv2, SNMPv3 and RMON 1 and 2" 3rd Edition 1999 Adisson Wesley • Gonzalo Camarillo "SIP Demystified" 2002, ISBN: 0071373403 McGraw-Hill • Henry Sinnreich and Alan B. Johnston, "Internet Communications using SIP", Wiley
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:	On completion of this subject, the students should have developed the following basic skills: # An advanced understanding of the changing knowledge base in the specialist area; # Well-developed problem-solving abilities in the discipline area, characterised by flexibility of approach; # An appreciation of the importance of customer requirements in delivering a valuable solution; # An advanced understanding of the international context and sensitivities of the specialist area.
Related Course(s):	Master of Telecommunications Engineering Master of Telecommunications Engineering Postgraduate Certificate in Engineering