433-353 Networks and Communications

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: Twenty-four hours of lectures and approximately 11 hours of tutorial classes Total Time Commitment: Not available
Prerequisites:	433-252 Software Engineering Principles and Tools, 433-253 Algorithms and Data Structures and 433-254 Software Design.
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 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. 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
Coordinator:	Dr Egemen Tanin
Subject Overview:	Topics covered include communication hardware; network topology; local area and long-haul networks; OSI model and alternatives; and error control, integrity, security.
Objectives:	On completion of this subject students will have a solid foundation in the fundamentals of data communication and in particular, the techniques that are used to achieve the reliable transfer of data between two devices connected by means of a direct data path; to be familiar with the mode of operation and the various interface standards and protocols associated with the different types of data network that are used for computer-to-computer communication; and to be familiar with the range of international standard protocols to achieve open systems interconnection in various application environments.
Assessment:	A half-hour mid-semester test (10%); project work during the semester, expected to take about 36 hours (30%); and a 3-hour end-of-semester written examination (60%). To pass the subject, students must obtain at least 50% overall, 15/30 in project work, and 30/60 in the written examination.
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:	On completion of this subject students should have: # an ability to apply knowledge of basic science and engineering fundamentals; # an in-depth technical competence in at least one engineering discipline; and # an ability to utilise a systems approach to design and operational performance.

Notes:	Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject.
Related Course(s):	Bachelor of Engineering (Computer Engineering) Bachelor of Engineering (Computer) and Bachelor of Arts Bachelor of Engineering (Computer) and Bachelor of Commerce Bachelor of Engineering (Computer) and Bachelor of Laws Bachelor of Engineering (Electrical Engineering) Bachelor of Engineering (EngineeringManagement) Computer Bachelor of Engineering (Mechatronics) and Bachelor of Computer Science Bachelor of Engineering (Software Engineering)
Related Majors/Minors/ Specialisations:	Computer Science Computer Science Major