411-339 Process Engineering 2

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: Forty-eight hours comprising 12 hours of lectures and 36 hours of problem solving classes. Total Time Commitment: Not available
Prerequisites:	411-102 Chemical Process Analysis, 411-201 Introduction to Transport Processes, 411-203 Fluid Mechanics, 431-202 Engineering Analysis B (prior to 2001, 421-205 Engineering Analysis B) 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 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 D Harvie
Subject Overview:	Material taught in other chemical engineering subjects will be reinforced by a series of assignments in which ill-defined and open-ended engineering problems will be tackled. Students successfully completing the subject will have developed enhanced engineering problem-solving skills. They will also have developed an appreciation for the legal and social framework within which engineers must practise. Content: Practice in the development and application of selection criteria for making appropriate engineering decisions. Creating and analysing processing systems which economically transform raw material, energy and know-how into useful products. Safety, sustainable development and ethics.
Assessment:	Ten equally-weighted assignments spread across the semester. Each assignment involves a written report of up to 1000 words in length.
Prescribed Texts:	None
Recommended Texts:	Information Not Available
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:	# ability to apply knowledge of basic science and engineering fundamentals # ability to communicate effectively, not only with engineers but also with the community at large

	# ability to undertake problem identification, formulation and solution # ability to utilise a systems approach to design and operational performance # ability to function effectively as an individual and in multi-disciplinary and multi-cultural teams, with the capacity to be a leader or manager as well as an effective team member # understanding of the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development # understanding of the principles of sustainable design and development # understanding of professional and ethical responsibilities and commitment to them # expectation of the need to undertake lifelong learning, capacity to do so # capacity for independent critical thought, rational inquiry and self-directed learning # profound respect for truth and intellectual integrity, and for the ethics of scholarship
Related Course(s):	Bachelor of Engineering (Chemical Engineering) Bachelor of Engineering (Chemical and Biomolecular Engineering) Bachelor of Engineering (Chemical) and Bachelor of Science Bachelor of Engineering(Biochemical Engineering)and Bachelor of Science