

421-698 Biomedical Engineering

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: 36 hours; Non-contact time commitment: 84 hours Total Time Commitment: Not available
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
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>
Coordinator:	David Smith
Subject Overview:	Definition and scope of biomedical engineering. Brief history of medicine, including human anatomy, physiology, and the rise of modern molecular biology. Description of the development of quantitative methods in biology, and the role of engineering in understanding complex biological systems. Topics covered include biomaterials and physiologic modelling of systems at various levels. Brief description of relevant laws, professional ethics and the regulatory environment.
Assessment:	One 2-hour examination (50%) and two assignments totalling 3000 words equivalent (50%).
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 successful completion, students should be able to:</p> <ul style="list-style-type: none"> # describe the evolution in understanding of biological systems and its effect on medicine # describe the multidisciplinary nature of biomedical engineering # describe the role of mathematical modelling in understanding biological systems # develop skills in qualitative description of biological systems and medical conditions # develop skills in constructing approximate models describing biological systems # develop skills in computer modelling of biological systems # have exposure to a range of problems in which biomedical engineers may play a role # develop an appreciation of the regulatory environment for product development # develop an appreciation of ethical dilemmas that arise in the medical practice
Related Course(s):	Master of Biomedical Engineering

Master of Engineering Science(Biomedical Engineering)