Master of Engineering (Biomolecular)

Year and Campus:	2010
Coordinator:	Associate Professor Sandra Kentish and Associate Professor David Shallcross
Contact:	Melbourne School of Engineering Office Building 173, Grattan Street The University of Melbourne VIC 3010 Australia **General telephone enquiries:** + 61 3 8344 6703 + 61 3 8344 6507 **Facsimiles:** + 61 3 9349 2182 + 61 3 8344 7707 Email: **eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)**
Overview:	Biomolecular engineers explore the development of large scale processes using microbial, plant or animal cells. Career opportunities for biomolecular engineers exist in specialized biomolecular industries such as the pharmaceutical and food industries but also encompass more traditional chemical engineering fields including petrochemical, minerals and energy, and food and pharmaceutical manufacture.
Objectives:	To produce graduates who are both skilled in biomolecular engineering principles and have the ability to apply them these skills to complex, open-ended engineering tasks and problems.
Structure & Available Subjects:	The Master of Engineering (Biomolecular) consists of 300 points of study, typically across six semesters. This includes: # 100 points of foundation study tailored to individual students who enter from non-Engineering backgrounds; and # 200 points of mainly engineering discipline specific study at the level of depth required to practice as a professional engineer upon graduation, including a 25-point capstone project completed in the final year of study. From 2011, students entering with appropriate engineering background may be granted up to 150 point of credit. For example, students entering from the University of Melbourne new generation Bachelor of Science with an 'Engineering Systems' major will be granted 100 points of credit for the foundation year. Credit will also be granted to students who have completed a specified breadth sequence in the new generation Bachelor of Commerce or appropriate electives as part of any major in the new generation Bachelor of Science. Students entering from another institution may also be awarded credit in this way. As the Master of Engineering commences in 2010 only the first year of the structure and available subjects are shown. For further information about structures and subjects see: **http://www.eng.unimelb.edu.au/Postgrad/MEng/me_biomolecular.html (http://www.eng.unimelb.edu.au/Postgrad/MEng/me_biomolecular.html)**
Subject Options:	Core and elective requirements in the Master of Engineering (Biomolecular) Students must complete 100 credit points (eight subjects) of core subjects in the first year of the Master of Engineering (Biomolecular). **First year core subjects in the Master of Engineering (Biomolecular) for students commencing March (Semester 1) 2010** Students who commence the Master of Engineering (Biomolecular) in March (Semester 1) 2010, must select the following core subjects in the first year of the Master of Engineering (Biomolecular)

Subject	Study Period Commencement:	Credit Points:
ENGR90021 Engineering Communication	Semester 1, Semester 2	12.50
CHEN20007 Chemical Process Analysis 1	Semester 1	12.50
MAST20029 Engineering Mathematics	Summer Term, Semester 1, Semester 2	12.50

CHEM20018 Reactions and Synthesis	Semester 1	12.50
CHEN20008 Chemical Process Analysis 2	Semester 2	12.50
CHEN20009 Transport Processes	Semester 2	12.50
ENGR30001 Fluid Mechanics	Semester 1, Semester 2	12.50
COMP20005 Engineering Computation	Semester 1, Semester 2	12.50

First year core subjects in the Master of Engineering (Biomolecular) for students commencing March (Semester 2) 2010

Students who commence the Master of Engineering (Biomolecular) in July (Semester 2) 2010, must select the following core subjects in the first year of the Master of Engineering (Biomolecular)

Subject	Study Period Commencement:	Credit Points:
ENGR90021 Engineering Communication	Semester 1, Semester 2	12.50
MAST20029 Engineering Mathematics	Summer Term, Semester 1, Semester 2	12.50
ENGR30001 Fluid Mechanics	Semester 1, Semester 2	12.50
COMP20005 Engineering Computation	Semester 1, Semester 2	12.50

Links to further information:	http://www.eng.unimelb.edu.au/Postgrad/MEng/me_biomolecular.html
Related Course(s):	Master of Engineering