The University of Sydney
School of Chemical and Biomolecular Engineering

Master of Engineering (Biophysical Processes)

Program overview

The physical sciences, engineering and mathematics are now dominating developments in the medical sciences, biology and biotechnology. The rapid growth of novel technologies, sensors and instrumentation in the Biological and Medical Sciences has led the emergence of opportunities for commercial and academic careers for graduates who understand the basis and interactions between the biology, physics and engineering underpinning this field.

This course aims to meet the professional needs of engineers and scientists in private and public sectors of industry and in private practice. The Master of Engineering (Biophysical Processes) provides graduates in Science and Engineering with the background for career development in this rapidly expanding area.

Students are required to study 48 credit points to complete this Master degree. Outstanding performance in this Master degree program can lead to acceptance into a Master by research or a PhD program. If students are offered admission into the Graduate Diploma program, students are only required to study 36 credit points to complete the degree. Outstanding performance in this Graduate Diploma program can lead to acceptance into a Master degree program in the School.

Admission:

Recognised equivalent Bachelor degree in Science, Engineering, Pharmacy or Technology.

Duration:

1-year full time, or 2-year part time.

Core units of study

Candidates must complete 4 out of 5 of these core units of study offered.

Unit of study	*Credit points*	*A: Assumed knowledge P: Prerequisites C: Corequisites N: Prohibition*	*Session*
CHNG5601 Membrane Science	6		Semester 1
CHNG5602 Cellular Biophysics	6		Semester 1
CHNG5603 Analysis, Modelling, Control: BioPhy Sys	6		Semester 1
CHNG5604 Membrane Science Laboratory	6		Semester 2
CHNG5605 Bio-Products: Laboratory to Marketplace	6	Semester 2 *This unit of study is offered as an advanced elective unit of study to final year undergraduate students. Students may be required to attend lectures off-campus.*	Semester 2

Recommended elective units of study

In addition to gaining credit for 4 of the units of study offered in the above core table, candidates are required to complete 24 credit points from the table of recommended elective units for the specialisation in biophysical processes, or other units, approved by the Postgraduate Director in the School of Chemical and Biophysical Engineering

CHNG5904 Seminar 1	2	*Note: Department permission required for enrolment See School of Chemical and Biomolecular Engineering for information*	Semester 1 Semester 2
CHNG5902 Project Part B	6	*Note: Department permission required for enrolment See School of Chemical and Biomolecular Engineering for information*	Semester 1 Semester 2
CHNG5905 Seminar 2	2	*Note: Department permission required for enrolment See School of Chemical and Biomolecular Engineering for information*	Semester 1 Semester 2
CHNG5907 Extended and Enhanced Project	24	*Note: Department permission required for enrolment See School of Chemical and Biomolecular Engineering for information*	Semester 1 Semester 2

Please visit our website: www.chem.eng.usyd.edu.au or send us an email to: info@chem.eng.usyd.edu.au for more information.