



The
University
of Sydney

School of Chemical and Biomolecular Engineering

Bachelor degree – Standard program 2010

1ST YEAR	UOS code	Unit Of Study title	Notes
1st semester	MATH1001	Differential Calculus	3 credit pts
	MATH1002	Linear Algebra	3 credit pts
	CHEM1101	Chemistry 1A	
	ENGG1800	Introduction to Engineering Disciplines	
	ENGG1801	Engineering Computing	*
2nd semester	MATH1003	Integral Calculus and Modelling	3 credit pts
	MATH1005	Statistics	3 credit pts
	CHEM1102	Chemistry 1B	
	ENGG1803	Professional Engineering 1	*
	CHNG1103	Introduction to Material and Energy Transformations	
2ND YEAR			
1st semester	CHNG2801	Conservation and Transport Processes	
	CHNG2802	Applied Maths for Chemical Engineers	
	CHNG2803	Energy and Fluid Systems Practice	
	CHEM2404	Forensic and Environmental Chemistry	*
2nd semester	CHNG2804	Chemical and Biological Systems Behaviour	
	CHNG2805	Industrial Systems and Sustainability	
	CHNG2806	Materials Purification and Recovery	
	CHEM2403	Chemistry of Biological Molecules	*
3RD YEAR			
1st semester	CHNG3801	Process Design	
	CHNG3802	Operating/Improving Industrial Systems	
	CHNG3803	Chemical/Biological Process Design	
	CHNG3808	Polymer Engineering	elective
2nd semester	CHNG3805	Product Formulation and Design	
	CHNG3806	Management of Industrial Systems	
	CHNG3807	Products and Value Chains	
	CHNG3804	Biochemical Engineering	elective
4TH YEAR			
1st semester	CHNG4001	Practical Experience	0 credit pts
	CHNG4811 OR CHNG4813	Honours Thesis A OR Engineering Project A	6 credit pts
	CHNG4802	Chemical Engineering Design A	
	CHNG5004	Particles and Surfaces (Mineral Processing)	elective
	CHNG5601	Membrane Science	elective
	CHNG5602	Cellular Bio-Physics	elective
	CHNG5603	Analysis, Modelling & Control of Biophysics processes	elective
	CHNG4203	Major Industrial Project	24 credit pts
2nd semester	CHNG4812 OR CHNG4814	Honours Thesis B OR Engineering Project B	6 credit pts
	CHNG4806	Chemical Engineering Design B	
	CHNG5001	Process Systems Engineering	elective
	CHNG5003	Green Engineering	elective
	CHNG5005	Wastewater Engineering Systems and Practice	elective
	CHNG5604	Membrane Science Laboratory	elective
	CHNG5605	Bio-products: From Laboratory to Market Place	elective

Notes:

All units of study are worth 6 credit points unless otherwise stated.

Students enrolled in combined degrees are exempt from some units, marked with an asterisk (*). These are replaced by units from the student's other degree. During 3rd and 4th year the structure can be varied slightly so the student can complete the requirements of their other degree. The entire program is 5 years instead of 4.

Electives: in total, students must complete 6 electives across 3rd & 4th year, 4 of which must be from Chem Eng. Combined degree students only complete 2 electives, which must both be from Chem Eng. Other units within the University may be permitted to be taken as electives.