Double Degree in Engineering and Economics
B.Eng (Hons) in Chemical & Biomolecular Engineering and BSocSci (Hons) in Economics
AY2022 - 2023 Intake onwards
with Professional Internship

Programme	Year of Study	Major Requirement		Interdisciplinary Collaborative Core		Broadening and Deepening Electives	Total
		Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)		
Double Degree in Chemical & Biomolecular Engineering and Economics (PI)	1	36/37*		9			45/46*
	2	34		8	3		45
	3	20			12		32
	4	14	22				36
	5		14			3	17
		104/105*	36	17	15	3	175/176*
Individual Degree Requirements							
Chemical & Biomolecular Engineering (PI)	1	24/25*		9			
	2	28		8	3		
	3	17			12		
	4	8	6				
	5						
	Total	77/78*	6	17	15	21	136/137*
Economics	1	12		9			
	2	6		8	3		
	3	3			12		
	4	14	16				
	5		14				
	Total	35	30	17	15	30	127

B.Eng (Hons) in Chemical & Biomolecular Engineering and BSocSci (Hons) in Economics

Category		AU	Total AU
Interdisciplinary Collaborative Core (ICC)	**Common Core (University-level)**		
	CC0001 Inquiry and Communication in the Interdisciplinary World	2	17
	CC0002 Navigating the Digital World	2	
	CC0003 Ethics & Civics in a Multi-Cultural World	2	
	CC0005 Healthy Living & Wellbeing	3	
	CC0006 Sustainability: Society, Economy & Environment	3	
	CC0007 Science & Technology for Humanity	3	
	ML0004 Career and Entrepreneurial Development for the Future World	2	
	Foundational Core (College-level)		
	HW0288 Engineering Communication	2	15
	CB0494 Introduction to Data Science and Artificial Intelligence	3	
	CH3880 Professional Internship	10	
Major Requirement	**CBE Core (C)**		
	EG1001 Engineers In Society	2	39
	MH1810 Math 1	3	
	PH1011* Physics	3	
	CB1102 Introduction to Chemical and Biomedical Engineering	1	
	CB1103 Organic Chemistry For Engineers	3	
	CB1117 Engineering Mathematics	4	
	CB1131 Introduction to Biomolecular Engineering	3	
	CH1104 Materials & Energy Balance	3	
	CH1801 Chemical & Biomolecular Engineering Laboratory 1A	1	
	CH1802 Chemical & Biomolecular Engineering Laboratory 2	1	
	CH2010 Engineering Statistics	3	
	CH2103 Fluid Systems	3	
	CH2107 Introduction to Computational Thinking	3	
	CH2108 Thermodynamics	3	
	CH2112 Chemical Reaction Engineering	3	

Major Requirement	CH2114	Heat & Mass Transfer in Chemical and Biological Systems	3	
	CH2123	Chemical Thermodynamics	3	
	CH2151	Unit Operations: Fluid-Solid Seperation	3	
	CH2801	Chemical & Biomolecular Engineering Laboratory 2A	2	
	CH2802	Chemical & Biomolecular Engineering Laboratory 2B	2	
	CH3104	Biochemical Engineering	3	38
	CH3109	Decision Tools for Business & Engineering	3	
	CH3111	Process Control and Dynamics	3	
	CH3121	Chemical, Biological & Plant Safety	2	
	CH3140	Unit Operations: Fluid-Fluid Separation	3	
	CH3802	Chemical & Biomolecular Engineering Laboratory 5	3	
	CH4801	Final Year Design Project	8	
	Econs Core (C)			
	HE1001	Microeconomics I	3	
	HE1002	Macroeconomics I	3	
	HE2001	Microeconomics II	3	
	HE2002	Macroeconomics II	3	
	HE2003	Econometrics I	3	27
	HE3001	Microeconomics III	3	
	HE3002	Macroeconomics III	3	
	HE3003	Econometrics II	3	
	MH1820	Introduction to Probability and Statistical Methods	3	
	Major Prescribe Electives (MPE)			
	CBE Major Prescribed Electives (2 courses)		6	
	Econs Level 3xxx (6 courses)		18	36
	Econs Level 4xxx (3 courses)		12	

Broadening and Deepening Electives (BDE)	3

Total	**175/176***

Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

B.Eng. (Chemical & Biomolecular Engineering) and BSocSci (Economics)
Suggested Study Plan for AY2022-2023 intake (Double Degree in Engineering and Economics)
**with Professional Internship**

Year 1 Semester 1

Course		Type	AU
CB1102	Introduction to Chemical and Biomedical Engineering	C	1
CB1131	Introduction to Biomolecular Engineering	C	3
CH1801	Chemical & Biomolecular Engineering Laboratory 1A	C	1
MH1810	Math 1	C	3
PH1011	Physics	C	3
	_or_		
PH1012	Physics A (* For students without 'A' Level Physics)		4
CC0001	Inquiry and Communication in the Interdisciplinary World	CC	2
CC0002	Navigating the Digital World	CC	2
HE1001	Microeconomic I	C	3
HE1002	Macroeconomic I	C	3
			*
		21	**22**

Year 1 Semester 2

Course		Type	AU
CB1103	Organic Chemistry For Engineers	C	3
CB1117	Engineering Mathematics	C	4
CH1104	Materials & Energy Balance	C	3
CH1802	Chemical & Biomolecular Engineering Laboratory 2	C	1
EG1001	Engineers in Society	C	2
CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
CC0005	Healthy Living & Wellbeing	CC	3
HE2001	Microeconomics II	C	3
HE2002	Macroeconomics II	C	3
			24

Year 2 Semester 1

Course		Type	AU
CH2103	Fluid Systems	C	3
CH2107	Introduction to Computational Thinking	C	3
CH2108	Thermodynamics	C	3
CH2010	Engineering Statistics	C	3
CH2801	Chemical & Biomolecular Engineering Laboratory 2A	C	2
CC0006	Sustainability: Society, Economy & Environment	CC	3
ML0004	Career and Entrepreneurial Development for the Future World	CC	2
HE3001	Microeconomics III	C	3
			22

Year 2 Semester 2

Course		Type	AU
CH2112	Chemical Reaction Engineering	C	3
CH2114	Heat & Mass Transfer in Chemical and Biological Systems	C	3
CH2123	Chemical Thermodynamics	C	3
CH2151	Unit Operations: Fluid-Solid Seperation	C	3
CH2802	Chemical & Biomolecular Engineering Laboratory 2B	C	2
CC0007	Science & Technology for Humanity	CC	3
CB0494	Introduction to Data Science and Artificial Intelligence	FC	3
MH1820	Introduction to Probability and Statistical Methods	C	3
			23

Year 3 Semester 1

Course		Type	AU
CH3104	Biochemical Engineering	C	3
CH3109	Decision Tools for Business & Engineering	C	3
CH3111	Process Control and Dynamics	C	3
CH3121	Chemical, Biological & Plant Safety	C	2
CH3140	Unit Operations: Fluid-Fluid Separation	C	3
CH3802	Chemical & Biomolecular Engineering Laboratory 5	C	3
HW0288	Engineering Communication	FC	2
HE3002	Macroeconomics III	C	3
			22

Year 3 Semester 2

Course		Type	AU
CH3880	Professional Internship	FC	10
			10

Year 4 Semester 1

Course		Type	AU
CH4801	Final Year Design Project	C	4
	CBE PE 1	MPE	3
HE2003	Econometrics I	C	3
	Econ PE3XXX 1	MPE	3
	Econ PE3XXX 2	MPE	3
	Econ PE3XXX 3	MPE	3
			19

Year 4 Semester 2

Course		Type	AU
CH4801	Final Year Design Project	C	4
	CBE PE 2	MPE	3
HE3003	Econometrics II	C	3
	Econ PE3XXX 4	MPE	3
	Econ PE4XXX 1	MPE	4
			17

Year 5 Semester 1

Course		Type	AU
	BDE 1	BDE	3
	Econ PE3XXX 5	MPE	3
	Econ PE3XXX 6	MPE	3
	Econ PE4XXX 2	MPE	4
	Econ PE4XXX 3	MPE	4
			17

Year 5 Semester 2

Course		Type	AU
			0
	Total (AU)		**175**
			176*

*Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).