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

AY2024 - 2025 Intake onwards with Professional Internship (CBEC)

		Number of Academic Units (AUs)						
Programme	Year of	Maj			isciplinary	Broadening		
	Study	Require	ment		rative Core	and	Total	
		Core (C)	Major PE	Common	Foundational	Deepening	. o ca.	
			(MPE)	Core (CC)	Core (FC)	Electives		
Double Degree in	1	36/37*		9			45/46*	
Chemical &	2	31	3	8	3		45	
Biomolecular	3	20			12		32	
Engineering and	4	14	22				36	
Economics	5		14			3	17	
		101/102*	39	17	15	3	175/176*	
		Individu	al Degree	e Require	ments			
	1	24/25*		9				
Chemical &	2	28		8	3			
Biomolecular	3	17			12			
Engineering	4	8	6					
Linginieering	5							
	Total	77/78*	6	17	15	21	136/137*	
	1	12		9				
	2	3	3	8	3			
Economics	3	3			12			
LCOHOTHICS	4	14	16					
	5		14					
	Total	32	33	17	15	30	127	

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

Category			AU	Total AU
Interdisciplinary Collaborative Core (ICC)	CC0001 In Interdiscip CC0002 N CC0003 Et CC0005 H CC0006 Su Environme CC0007 So ML0004 C	Core (University-level) Iquiry and Communication in the olinary World Environmental World Shics & Civics in a Multi-Cultural World ealthy Living & Wellbeing Sustainability: Society, Economy & Sent Science & Technology for Humanity Career and Entrepreneurial Development ture World	2 2 2 3 3 3 2	17
	HW0288 E CB0494 In Intelligend	Engineering Communication Stroduction to Data Science and Artificial Sce Trofessional Internship	2 3 10	15
	CBE Core	(6)		I
Major Requirement	EG1001	Engineers In Society Math 1	2 3 3 1 3 4 3 1	39
	CH2010	Engineering Statistics	3	
	CH2103 CH2107	Fluid Systems Introduction to Computational Thinking	3	
	CH2108 CH2112	Thermodynamics Chemical Reaction Engineering	3 3	

Total						
Broadening and [beepening E	:iectives (BDE)		3		
Droadoning and [Dooponing [Clastinas (RDE)				
	Econs Lev	el 4xxx (3 courses)	12			
		el 3xxx (6 courses)	18			
	MH1820	Statistical Methods	3	39		
		r Prescribed Electives (2 courses) Introduction to Probability and				
	1 -	escribe Electives (MPE)	6			
	20 : -	11 51 11 (2005)				
	HE3003	Econometrics II	3			
	HE3001		3 3			
	HE2003 HE3001	Econometrics I Microeconomics III	3 3			
	HE2002	Macroeconomics II	3	24		
	HE2001	Microeconomics II	3			
	HE1002	Macroeconomics I	3			
	HE1001	Microeconomics I	3			
	Econs Cor	re (C)				
	CH4801	Final Year Design Project	8			
Requirement	CH3802	Laboratory 5	3			
Major		Chemical & Biomolecular Engineering				
	CH3140	Unit Operations: Fluid-Fluid Separation	3			
	CH3121	Chemical, Biological & Plant Safety	2			
	CH3111	Process Control and Dynamics	3			
	CH3109	Decision Tools for Business & Engineering	3			
	CH3104	Biochemical Engineering	3	38		
	CH2802	Chemical & Biomolecular Engineering Laboratory 2B	2			
	CH2801	Chemical & Biomolecular Engineering Laboratory 2A	2			
	CH2151	Unit Operations: Fluid-Solid Seperation	3			
	CH2123	Chemical Thermodynamics	3			
	CH2114	Heat & Mass Transfer in Chemical and Biological Systems	3			

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

	ons) in Chemical & Biomolecular Engineering and BS 2025 Intake onwards							
with Profess	sional Internship (CBEC)							
Year 1 Se Course	mester 1	Type	AU		Year 1 Sem Course	nester 2	Туре	AU
CB1102	Introduction to Chemical and Biomedical	C	1	_	CB1103	Organic Chemistry For Engineers	C	3
CB1131	Engineering Introduction to Biomolecular Engineering	С	3		CB1117	Engineering Mathematics	С	4
	Chemical & Biomolecular Engineering Laboratory	С						
CH1801	1A	C	1		CH1104	Materials & Energy Balance	С	3
ИН1810	Math 1	С	3		CH1802	Chemical & Biomolecular Engineering Laboratory 2	С	1
PH1011	Physics	С	3		EG1001	Engineers in Society	С	2
	<u>or</u> ´				CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
PH1012	Physics A (* For students without 'A' Level Physics)		4		CC0005	Healthy Living & Wellbeing	CC	3
	Inquiry and Communication in the Interdisciplinary							
CC0001	World	CC	2		HE2001	Microeconomics II	С	3
CC0002	Navigating the Digital World	CC	2		HE2002	Macroeconomics II	С	3
HE1001 HE1002	Microeconomic I Macroeconomic I	C	3					
121002	Wad decement in			*				
			21	22				24
rear 2 Se	mantor 1				Year 2 Sem	neator 2		
rear 2 Sei Course	1	Type	AU		Course	100101 £	Туре	AU
CH2103	Fluid Systems	С	3	_	CH2112	Chemical Reaction Engineering	C	3
CH2107	Introduction to Computational Thinking	С	3		CH2114	Heat & Mass Transfer in Chemical and Biological	С	3
CH2108	Thermodynamics	С	3		CH2123	Systems Chemical Thermodynamics	С	3
CH2010	Engineering Statistics	Ċ	3		CH2151	Unit Operations: Fluid-Solid Seperation	Ċ	3
CH2801	Chemical & Biomolecular Engineering Laboratory	С	2		CH2802	Chemical & Biomolecular Engineering Laboratory	С	2
CC0006	2A Sustainability: Society, Economy & Environment	СС	3		CC0007	2B Science & Technology for Humanity	СС	3
	Career and Entrepreneurial Development for the	CC	2			Introduction to Data Science and Artificial	FC	
ML0004	Future World	CC	2		CB0494	Intelligence	FC	3
HE3001	Microeconomics III	С	3		MH1820	Introduction to Probability and Statistical Methods	MPE	3
			22	-				23
Year 3 Se	moetar 1				Year 3 Sem	noctor ?		
Course	mester i	Type	AU		Course	163161 2	Type	ΑU
CH3104	Biochemical Engineering	С	3	_	CH3920	Professional Internship	FC	10
CH3109 CH3111	Decision Tools for Business & Engineering Process Control and Dynamics	C C	3 3					
CH3111	Chemical, Biological & Plant Safety	C	2					
CH3140	Unit Operations: Fluid-Fluid Separation	С	3					
CH3802	Chemical & Biomolecular Engineering Laboratory 5	С	3					
HW0288	Engineering Communication	FC	2					
HE3002	Macroeconomics III	С	3					
			22	_				10
Year 4 Se Course	mester 1	Туре	AU		Year 4 Sem Course	nester 2	Туре	AU
	Final Vana Danian Danian			_		Final Vaca Parism Paris		
CH4801	Final Year Design Project	С	4		CH4801	Final Year Design Project	С	4
UE2002	CBE PE 1	MPE	3		ЦЕЗОСО	CBE PE 2	MPE	3
HE2003	Econometrics I Econ PE3XXX 1	C MPE	3 3		HE3003	Econometrics II Econ PE3XXX 4	C MPE	3
	Econ PE3XXX 2	MPE	3			Econ PE4XXX 1	MPE	4
	Econ PE3XXX 3	MPE	3					
			19	_				17
					Year 5 Sem	nester 2		
Year 5 Se	mester 1				Course		Type	ΑU
	mester 1	Туре	AU	_				
	BDE 1	BDE	3	_				
	BDE 1 Econ PE3XXX 5	BDE MPE	3	-				
	BDE 1 Econ PE3XXX 5 Econ PE3XXX 6	BDE MPE MPE	3 3 3					
	BDE 1 Econ PE3XXX 5	BDE MPE	3					
	BDE 1 Econ PE3XXX 5 Econ PE3XXX 6 Econ PE4XXX 2	MPE MPE MPE	3 3 3 4					
Year 5 Se Course	BDE 1 Econ PE3XXX 5 Econ PE3XXX 6 Econ PE4XXX 2	MPE MPE MPE	3 3 3 4					0
	BDE 1 Econ PE3XXX 5 Econ PE3XXX 6 Econ PE4XXX 2	MPE MPE MPE	3 3 4 4			Total (AU)		0 175

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

List of Courses tha	t Contribu	tes to BEng (Chemical and Biomolecular	Αl	J Load
Discipline	Core	EG1001	Engineers In Society	2	77AU
Requirement		MH1810	Math 1	3	
		PH1011*	Physics	3	
		CB1102	Introduction to Chemical and	1	
		CDIIOZ	Biomedical Engineering		
		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	
		CH2114	Heat & Mass Transfer in Chemical and Biological Systems	3	
		CH2123	Chemical Thermodynamics	3	
		CH2151	Unit Operations A	3	
		CH2801	Chemical & Biomolecular Engineering Laboratory 2A	2	
		CH2802	Chemical & Biomolecular Engineering Laboratory 2B	2	
		CH3104	Biochemical Engineering	3	
		CH3109	Decision Tools for Business & Engineering	3	
		CH3111	Process Control and Dynamics	3	
		CH3121	Chemical, Biological & Plant Safety	2	
		CH3140	Unit Operations B	3	
		СН3802	Chemical & Biomolecular Engineering Laboratory 5	3	
		CH4801	Final Year Design Project	8	
	BDE	HE1001	Microeconomics I	3	21AU 15AU from
		HE1002	Macroeconomics I	3	compulsory
		HE2001	Microeconomics II	3	Economics Core courses.
		HE2002	Macroeconomics II	3	Remaining 3AU from Year 3 and
		HE2003	Econometrics I	3	4 Economics PE that yield the
		HEXXXX	Economics PE	3	highest CGPA. + 5AU (PA only)
			BDE 1	3	+ JAU (PA UIIIY)

	Major PE	BGXXXX	BIE PE 1	3	6AU
		BGXXXX	BIE PE 2	3	
Interdisciplinary Collaborative	Common Core	CC0001	Inquiry and Communication in the Interdisciplinary World	2	17AU
Core		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	
	Foundatio	HW0288	Engineering Communication	2	15AU or
	nal Core	CB0494	Introduction to Data Science and Artificial Intelligence	3	10AU (for PA only)
		CH3920/ CH3910	Professional Internship/ Professional Attachment	10/5	
			TOTAL		136 AU

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

List of courses tha	t contribut	e towards B	SocSci (Econs)	AL	Load
Discipline	Core	HE1001	Microeconomics I	3	32AU
Requirement		HE1002	Macroeconomics I	3	
		HE2001	Microeconomics II	3	
		HE2002	Macroeconomics II	3	
		HE2003	Econometrics I	3	
		HE3001	Microeconomics III	3	
		HE3002	Macroeconomics III	3	
		HE3003	Econometrics II	3	
		BG4801	Final Year Project	8	
	MPE	MH1820	Introduction to Probability and Statistical Methods	3	33AU
		HE3XXX	Econs PE1	3	
		HE3XXX	Econs PE2	3	
		HE3XXX	Econs PE3	3	
		HE3XXX	Econs PE4	3	
		HE3XXX	Econs PE5	3	
		HE3XXX	Econs PE6	3	
		HE4XXX	Econs PE7	4	
		HE4XXX	Econs PE8	4	
		HE4XXX	Econs PE9	4	

1	BDE	TC1001	Engineers In Cociety	2	9AU from Year
	BDE	EG1001	Engineers In Society	2	
		MH1810	Math 1	3	1 Engineering
		PH1011*	Physics	3	graded Core
		CB1102	Introduction to Chemical and	1	courses that
			Biomedical Engineering		yield the
		CB1103	Organic Chemistry For Engineers	3	highest CGPA.
		CB1117	Engineering Mathematics	4	
		CB1131	Introduction to Biomolecular	3	
			Engineering		
		CH1104	Materials & Energy Balance	3	
		CH1801	Chemical & Biomolecular Engineering	1	
			Laboratory 1A		
		CH1802	Chemical & Biomolecular Engineering	1	
			Laboratory 2		
	BDE	CH2010	Engineering Statistics	3	21AU from
		CH2103	Fluid Systems	3	Year 2 and 3
		CH2107	Introduction to Computational	3	Engineering
			Thinking		graded
		CH2108	Thermodynamics	3	courses that
		CH2112	Chemical Reaction Engineering	3	yield the
		CH2114	Heat & Mass Transfer in Chemical	3	highest CGPA
			and Biological Systems		+
		CH2123	Chemical Thermodynamics	3	5AU (PA
		CH2151	Unit Operations: Fluid-Solid Seperation	3	only)
		CH2801	Chemical & Biomolecular Engineering Laboratory 2A	2	
		CH2802	Chemical & Biomolecular Engineering Laboratory 2B	2	
		CH3104	Biochemical Engineering	3	
		СН3109	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	
Interdisciplinary Collaborative	Common Core	CC0001	Inquiry and Communication in the Interdisciplinary World	2	17AU
Core		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	2	
			Development for the Future World	_	

Foundatio	HW0288	Engineering Communication	2	15AU or			
nal Core	CB0494	Introduction to Data Science and	2	10AU (for PA			
	CB0494	Artificial Intelligence	3	only)			
	CH3920/	Professional Internship/ Professional	10/5				
	CH3910	Attachment	10/5				
	TOTAL						

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