

Double Degree Programme in Engineering & Economics

List of Courses which contribute to BEng (CE) and BEng (CS) degrees BEng (Computer Engineering) and BA (Economics)

(Students admitted from AY2019/2020)

List of courses that contribute towards BEng (Computer Engineering)				AU Load	
Discipline Requirement	Core	MH1812	Discrete Mathematics	3	79 AUs (PA) 84 AUs (PI)
		CE1011	Engineering Mathematics I	3	
		CE1012	Engineering Mathematics II	3	
		CE1003	Introduction to Computational Thinking	3	
		CE1005	Digital Logic	3	
		CE1006	Computer Organisation and Architecture	3	
		CE1007	Data Structures	3	
		CE1013	Physics for Computing	2	
		CE2001	Algorithms	3	
		CE2002	Object Oriented Design & Programming	3	
		CE2003	Digital Systems Design	3	
		CE2004	Circuits and Signal Analysis	3	
		CE2005	Operating Systems	3	
		CE2006	Software Engineering	3	
		CE2007	Microprocessor-based Systems Design	3	
		CE3001	Advanced Computer Architecture	3	
		CE3002	Sensors and Control Systems	3	
		CE3003	Microcontroller Programming	3	
		CE3005	Computer Networks	3	
		CE3006	Digital Communications	3	
		CE3007	Digital Signal Processing	3	
		CE3004	Multidisciplinary Design Project	4	
	CE3026 / CE3079	Professional Attachment / Professional Internship	5 / 10		
	CE4079	Final Year Project	8		
	Core Elective	CE4xxx	CE Technical Elective 1	3	18 AUs
		CE4xxx	CE Technical Elective 2	3	
		CE4xxx	CE Technical Elective 3	3	
		CE4xxx	CE Technical Elective 4	3	
CE4xxx		CE Technical Elective 5	3		
CE4xxx		CE Technical Elective 6	3		
UE	HE1001	Microeconomic Principles	3	24 AUs 12 AUs from compulsory Year 1 and 2 Economics courses. Remaining 12 AUs from 3 rd and 4 th year Economics courses that yield the highest CGPA.	
	HE1002	Macroeconomic Principles	3		
	HE1005	Intro to Probability & Statistical Inference	3		
	HE2005	Principles of Econometrics	3		
	HExxxx	Economics Course 1	3		
	HExxxx	Economics Course 2	3		
	HExxxx	Economics Course 3	3		
	HExxxx	Economics Course 4	4		
General Education Requirements (GER)	GER (Core)	HW0188	Engineering Communication I	2	14 AUs
		HW0288	Engineering Communication II	2	
		ML0003	Kickstart your Career Success	1	
		GC0001	Introduction to Sustainability	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Entrepreneurship and Innovation	1	
		EG0001	Engineers and Society	3	
		CE1015	Introduction to Data Science and Artificial Intelligence	3	
		GER-UE		Elective	
	TOTAL				140 AUs

BEng (Computer Science) and BA (Economics) (Students admitted from AY2019/2020)

List of courses that contribute towards BEng (Computer Science)				AU Load	
Discipline Requirement	Core	MH1812	Discrete Mathematics	3	79 AUs (PA) 84 AUs (PI)
		CZ1011	Engineering Mathematics I	3	
		CZ1012	Engineering Mathematics II	3	
		CZ1003	Introduction to Computational Thinking	3	
		CZ1005	Digital Logic	3	
		CZ1006	Computer Organisation and Architecture	3	
		CZ1007	Data Structures	3	
		CZ1013	Physics for Computing	2	
		CZ2001	Algorithms	3	
		CZ2002	Object Oriented Design & Programming	3	
		CZ2003	Computer Graphics and Visualisation	3	
		CZ2004	Human Computer Interaction	3	
		CZ2005	Operating Systems	3	
		CZ2006	Software Engineering	3	
		CZ2007	Database Systems	3	
		CZ3001	Advanced Computer Architecture	3	
		CZ3002	Advanced Software Engineering	3	
		CZ3003	Software Systems Analysis and Design	3	
		CZ3005	Artificial Intelligence	3	
		CZ3006	Net Centric Computing	3	
	CZ3007	Compiler Techniques	3		
	CZ3004	Multidisciplinary Design Project	4		
	CZ3126 / CZ3179	Professional Attachment / Professional Internship	5 / 10		
	CZ4079	Final Year Project	8		
	Core Elective	CZ4xxx	CZ Technical Elective 1	3	18 AUs
		CZ4xxx	CZ Technical Elective 2	3	
		CZ4xxx	CZ Technical Elective 3	3	
		CZ4xxx	CZ Technical Elective 4	3	
		CZ4xxx	CZ Technical Elective 5	3	
CZ4xxx		CZ Technical Elective 6	3		
UE	HE1001	Microeconomic Principles	3	24 AUs 12 AUs from compulsory Year 1 and 2 Economics courses. Remaining 12 AUs from 3 rd and 4 th year Economics courses that yield the highest CGPA	
	HE1002	Macroeconomic Principles	3		
	HE1005	Intro to Probability & Statistical Inference	3		
	HE2005	Principles of Econometrics	3		
	HExxxx	Economics Course 1	3		
	HExxxx	Economics Course 2	3		
	HExxxx	Economics Course 3	3		
	HExxxx	Economics Course 4	4		
General Education Requirements (GER)	GER (Core)	HW0188	Engineering Communication I	2	14 AUs
		HW0288	Engineering Communication II	2	
		ML0003	Kickstart your Career Success	1	
		GC0001	Introduction to Sustainability	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Entrepreneurship and Innovation	1	
		EG0001	Engineers and Society	3	
		CZ1015	Introduction to Data Science and Artificial Intelligence	3	
		GER-UE		Elective	
	TOTAL				140 AUs