

Graduation requirements for Double Degree Programme

BEng (CEG), BSocSci (Hons) for AY2020 intake

- CEG requirements only, and with [Faculty of Engineering \(FoE\) as Home Faculty](#)

Minimum MCs for BEng (CEG) and BSocSci (Hons): 203

	Degree Requirements		MCs	MCs
A.	University Level Requirements (ULR)			20
	One General Education Module (GEM) from each of the five pillars:			
	Human Cultures – GEH1xxx	CA	4	
	Asking Questions – GEQ1000	CA	4	
	Quantitative Reasoning – GER1000	CA	4	
	Singapore Studies – GES1xxx	CA	4	
	Thinking and Expression – GET1xxx	CA	4	
B.	FASS - BSocSci (Hons) Programme Requirements			73
	i) FASS Requirements			
	- Level 1000 exposure module (Asian Studies)			
	- Level 1000 exposure module (Social Sciences)			
	- Level 1000 exposure module (Humanities)			
	- FAS1101	C2	16	
	ii) Economics Programme Requirements			
	- Essential modules			
	- Elective Major modules	C2	57	
C.	FoE & SoC - BEng (CEG) Programme Requirements			82
	Major Requirements:			
	CEG Core Modules			
	CG1111 Engineering Principles and Practice I	C1	6	
	CG1112 Engineering Principles and Practice II	C1	6	
	CS1010 Programming Methodology	C1	4	
	CS1231 Discrete Structures	C1	4	
	MA1511 Engineering Calculus	C1	2	
	MA1512 Differential Equations for Engineering	C1	2	
	MA1508E Linear Algebra for Engineering	C1	4	
	CG2023 Signals & Systems	C1	4	
	CG2027 Transistor-level Digital Circuits	C1	2	
	CG2028 Computer Organization	C1	2	
	CG2271 Real-Time Operating Systems	C1	4	
	CS2040C Data Structures and Algorithms	C1	4	
	CS2101 Effective Communication for Computing Professionals (in lieu of FAS1102 (4MCs) FAS1103 (2 MCs) + CFG1002 (2 MCs))	CA	4	
	CS2113/T Software Engineering & Object-Oriented Programming	C1	4	
	EE2026 Digital Design	C1	4	
	EG2401A Engineering Professionalism	C1	2	
	CG3207 Computer Architecture OR			
	CS3230 Design and Analysis of Algorithms	C1	4	
	CG4002 Computer Engineering Capstone Project	C1	8	
	EE4204 Computer Networks	C1	4	
	CEG Technical Electives			
	- at least 4 MCs technical Depth elective(s) from any concentration			
	- another 4 MCs technical Breadth/Depth elective(s) from any concentration	C1	8	

D.	Common Modules			28
	ST2334 Probability and Statistics Note: CEG students are required to read ST2334. If a DDP (CEG, Econs) student has already read EC2303, he/she must still read ST2334.	CA	4	
	(i) XF4401 Integrated Project (over 3 sem) OR (ii) Separate FYPs [CG4001 BEng Dissertation (12 MCs, C1) or 3 CS/EE4xxx] + 1 CEG technical Breadth/Depth elective (4 MCs, C1) AND [EC4401 Honours Thesis (15 MCs, C2) or 3 EC4xxx in place of Econs thesis (no Highest Distinction Hons for BSocSci, 15 MCs, C2)]	CA	16	
	One BEng (CEG) Technical Elective - from Table 1	CA	4	
	One BA (Econs) - from Table 1	CA	4	
E.	Unrestricted Elective Requirements (UEM): Exempted	-	-	EXE
Total for BEng (CEG), BSocSci (Hons)				203

CA / C1 / C2 CLASSIFICATION:

The modules that DDP students take are counted towards the CAP in the following manner

1 st Degree	Classified as C1 in the database
2 nd Degree	Classified as C2 in the database
Both 1 st and 2 nd degrees	Classified as CA in the database

Additional modules taken will be counted towards C1, except for modules offered by the faculty of the student's second degree, which will be classified as C2.

Table 1: BEng (CEG) & BA modules that may be considered as common modules

BEng modules that can be counted towards BA - Economics requirements*	BA - Economics modules that can be counted towards BEng requirements*
CS3243 Introduction to Artificial Intelligence	EC3312 Game Theory & Applications to Economics
CS3244 Machine Learning	EC3322 Industrial Organization I
CS4244 Knowledge Representation and Reasoning	EC3384 Resource & Energy Economics I
CS4246 AI Planning and Decision Making	EC4303 Econometrics III
EE3031 Innovation & Enterprise I	EC4311 Mathematical Economic Analysis
EE3801 Data Engineering Principles*	EC4322 Industrial Organization II
EE4211 Data Science for the Internet of Things (anti-req: EE4802)	EC4372 Technology & Innovation
EE4305 Fuzzy/Neural Systems for Intelligent Robotics	EC4384 Resource & Energy Economics II
EE4511 Renewable Generation and Smart Grid	EC5104 Mathematical Economics
EE4802 Learning from Data* (anti-req: EE4211)	EC5314 Time Series Analysis
	EC5324R Cost Benefit Analysis

* This list may be updated by the FoE and FASS acting in concert. Changes will be proposed by the Coordinating Committee, and will require approval by each Faculty's curriculum committee

Other relevant information:

CEG Technical Electives - <https://ceg.nus.edu.sg/curriculum/electives-ay17/>

Faculty of Engineering - <https://www.eng.nus.edu.sg/undergraduate/double-degrees/double-degree-programme-in-engineering-economics/>

Registrar's Office - <http://www.nus.edu.sg/registrar/academic-information-policies/undergraduate-students/special-programmes/double-degree-programmes>