

NUS DEPARTMENT OF MECHANICAL ENGINEERING
B.Eng(ME)(Hons) & B.Soc.Sci (Economics) Double Degree Programme
(Matriculating AY15/16)

Degree Requirements	Modular Credits (MCs)	Comments
(A) University Level Requirements	Total 20 MCs	
GEMs	20 MCs	
(B) FASS Programme Requirements	Total 48 MCs	
Level 1000 Exposure modules (Asian studies)	4 MCs (from the Asian Studies Division + 8MCs of common modules)	Asian Studies modules: CH1101E, CL1101E, JS1101E, MS1101E, SE1101E, SN1101E.
Single Major (Economics)	44MCs (+16MCs of common modules)	
(C) Engineering Programme Requirements	Total 96 MCs	Some engineering courses will have more than this. As it varies according to the engineering course, students should seek advice from their department on the recommended schedule.
Engineering Modules	96 MCs (+24MCs of common modules)	BEng Program requirements including Faculty & Discipline specific requirements (core, elective, projects & FYP Thesis). It is not compulsory for DDP students to do the Industrial Attachment
(D) Common Modules	Total 24 MCs	
These modules map towards both degrees.	Four common essential modules (16 MCs): MA1505, MA1506, PH2208 or PH2218 or PH2223, SC1101E or SC2202	See Table C
	8MCs of electives: Any <u>One</u> BEng Module Any <u>One</u> BA(Econs) Module	See Table D
(E) Unrestricted Elective Requirements	(Exempted)	
Unrestricted Elective	-	<i>Exempted under DDP Structure</i>
TOTAL	188 MCs (min)	This is only the minimum requirement and will vary according to the engineering course. Students should seek advice from their department on the total MCs required to fulfil the DDP.

1. These 16 MCs of common modules replace 14 MCs in the BEng(Hons) Programme requirements.
2. PH2208 Applied Ethics or PH2218 Business Ethics or PH2223 Introduction to the Philosophy of Technology (fulfils the FoE requirement for the 3MC EG2401 Engineering Professionalism).
3. SC2202 Sociology of Work or SC1101E Making Sense of Society (fulfils the FoE requirement for the 3MC HR2002)

Semester Schedule for B.Eng. (M.E.) & BA Double Degree Programme (2015/2016)

Year 1						
Semester 1	MCs		Semester 2	MCs		
MA1505 Mathematics I ²	4	CA (*)	MA1506 Mathematics II ²	4	CA	
PC1431 Physics IE	4	C1 (*)	ES1501X Critical Thinking and Expository Writing ³	4	C1	
EG1108 Electrical Engineering	3	C1	EG1109M Statics and Mechanics of Materials	4	C1	
CS1010E Programming Methodology	4	C1	ME2103 Engineering Visualisation and Modelling	3	C1	
FASS Level-1000 Exposure module x1	4	C2 (*)	FASS Single Major (Economics) Module 1	4	C2	
GER1000 Quantitative Reasoning (GE 1 - QR) ¹	4	CA	GE 2 ¹	4	CA	
Sub-Total	23		Sub-Total	23		
Year 2						
Semester 3	MCs		Semester 4	MCs		
ME2113 Mechanics of Materials I	3	C1	ME2101 Fundamentals of Mechanical Design	4	C1	
ME2121 Engineering Thermodynamics	4	C1	ME2114 Mechanics of Materials II	3	C1	
ME2134 Fluid Mechanics I	4	C1	ME2135 Fluid Mechanics II	4	C1	
ME2151 Principles of Mechanical Engineering Materials	4	C1	ME2143 Sensors and Actuators	4	C1	
ME3162 Manufacturing Processes (BEng Module as shown in Table D)	4	CA	ME3112 Mechanics of Machines	4	C1	
GE 3 ¹	4	CA	GE 4 ¹	4	CA	
Sub-Total	23		Sub-Total	23		
Year 3						
Semester 5	MCs		Semester 6	MCs		
ME3103 Mechanical Systems Design	6	C1	SC2202 Sociology of Work or SC1101E Making Sense of Society (replaces HR2002)[Table C] ²	4	CA	
ME3122 Heat Transfer	4	C1	ME2142 Feedback Control Systems	4	C1	
PH2223 Introduction To The Philosophy Of Technology (replaces EG2401)[Table C] ²	4	CA	B.Eng. Technical Elective 1	4	C1	
FASS Single Major (Economics) Module 2	4	C2	FASS Single Major (Economics) Module 4	4	C2	
FASS Single Major (Economics) Module 3	4	C2	FASS Single Major (Economics) Module 5	4	C2	
			Singapore Studies	4	CA	
Sub-Total	22		Sub-Total	24		

Year 4					
Semester 7	MCs		Semester 8	MCs	
ME4101A B.Eng. Dissertation	4	CA	ME4101A B.Eng. Dissertation	4	CA
B.Eng. Technical Elective 2	4	C1	Any <u>one</u> B.A. (Econs) Module as shown in Table D	4	CA
FASS Single Major (Economics) Module 6	4	C2	FASS Elective Module (Any Level) x 2	8	C2
FASS Elective Module (Any Level)	4	C2	FASS Elective Module (Level 3000)	4	C2
FASS Elective Module (Level 3000)	4	C2			
Sub-Total	20		Sub-Total	20	
Total MCs	180				

Notes:

(*) C1 – Counted as B.Eng. degree requirement; C2 – Counted as 2nd degree requirement; CA – Double-counted as both degree requirements.

- 1) Students are strongly encouraged to complete all the five GE modules latest by the end of Year 2.
- 2) Common module that also satisfies FASS Single Major (Economics) Foundation Module requirements.
- 3) DDP students are encouraged to read ES1501X. However, in the event that students are not able to get ES1501X, they have to read GET1021 + ES2331 or IEM1201X + IEM2201X (For UTown Students)

Table C: List of 20 MCs of Common Modules, Contributing to FASS Requirements

Module Title	
MA1505 Mathematics I	These four modules are accepted in lieu of the FASS Faculty exposure requirements. They involve some social science and some humanities. Students must also complete 4 MCs of exposure modules from Asian Studies as part of the FASS requirements.
MA1506 Mathematics II	
PH2208 Applied Ethics (fulfils the FoE requirement for the 3 MC EG2401 Engineering Professionalism*)	
SC2202 Sociology of Work OR SC1101E Making Sense of Society (fulfils the FoE requirement for the 3 MC HR2002 Human Capital in Organizations*)	

*These 16 MCs of common modules replace 14 MCs in the B.Eng.(Hons.) Programme requirements.

Table D: B.Eng. & B.A. modules that may be considered as common modules

B.Eng. Programme	B.Eng. modules that can be counted towards B.A.-Economics major requirements*	B.A. - Economics modules that can be counted towards B.Eng. requirements*
Mechanical Engineering	ME3162 Manufacturing Processes (Cost of Production) ME4262 Automation in manufacturing (economic cost-benefit analysis of automation) EE4305 Introduction to Fuzzy/Neural Systems	EC3322 Industrial Organisation I EC4372 Technology & Innovation EC4322 Industrial Organisation II EC5324 Economics & Cost Benefit Analysis