

**NUS DEPARTMENT OF MECHANICAL ENGINEERING**  
**B.Eng(ME)(Hons) & B.Soc.Sci (Economics) Double Degree Programme**  
**(Matriculating AY16/17)**

Degree Requirements	Modular Credits (MCs)	Comments
<b>(A) University Level Requirements</b>	<b>Total 20 MCs</b>	
General Education (GE)	20 MCs	
<b>(B) FASS Programme Requirements</b>	<b>Total 8 MCs</b>	
Level 1000 Exposure modules (Asian studies)	4 MCs	Asian Studies modules: CH1101E, CL1101E, JS1101E, MS1101E, SE1101E, SN1101E.
Level 1000 Exposure modules (Social Sciences)	4 MCs	EC1301/EC1101E
<b>(C) Economics Programme Requirements</b>	<b>Total 28 MCs</b>	
Essential Modules	20 MCs	EC2101, EC2102, EC3101, EC3102, EC3303
Elective Major Modules	8 MCs	Must be Level-3000 Economics modules
<b>(D) Engineering Programme Requirements</b>	<b>Total 100 MCs</b>	
ES1531 (Compulsory)	4MCs	
Foundation Modules	20MCs	
ME Requirements (Essential, Technical Electives, Pathway Requirements)	62MCs	
Free Electives	14MCs	
<b>(E) Common Modules</b>	<b>Total 24 MCs</b>	
These modules map towards both degrees.	FAS1102 (replaces ES2331) <sup>1</sup>	
	<u>Three</u> common essential modules (12 MCs): MA1505, MA1506, PH2208/PH2218/PH2223	See Table 1
	8MCs of electives: Any <u>One</u> BEng Module (ME3162) Any <u>One</u> BA(Econs) Module	See Table 2
<b>(F) Unrestricted Elective Requirements</b>	<b>(Exempted)</b>	
Unrestricted Elective	-	<i>Exempted under DDP Structure</i>
<b>TOTAL</b>	<b>180 MCs (min)</b>	
1. FAS1102 is a compulsory writing module which is pre-allocated in Year 1.		

**Semester Schedule for B.Eng. (M.E.) & BA Double Degree Programme (2016/2017)**

Year 1							
Semester 1		MCs		Semester 2		MCs	
MA1505	Mathematics I <sup>2</sup>	4	CA (*)	MA1506	Mathematics II <sup>2</sup>	4	CA
PC1431	Physics IE	4	C1 (*)	ES1531	Critical Thinking and Writing	4	C1
EG1111	Engineering Principles & Practice I	6	C1	EG1112	Engineering Principles & Practice II	6	C1
EC1101E	Introduction to Economic Analysis or its equivalent EC1301	4	C2(*)	CS1010E	Programming Methodology	4	C1
FAS1102	Public Writing and Communication	4	CA	FASS Level-1000	Exposure module (Asian Studies)	4	C2
GER1000	Quantitative Reasoning (GE 1 - QR) <sup>1</sup>	4	CA	GEQ	Asking Questions (GE2) <sup>1</sup>	4	C1
<b>Sub-Total</b>		<b>26</b>		<b>Sub-Total</b>		<b>26</b>	
Year 2							
Semester 3		MCs		Semester 4		MCs	
ME2112	Strength of Materials	4	C1	ME2102	Engineering Innovation and Modelling	4	C1
ME2134	Fluid Mechanics I	4	C1	ME2121	Engineering Thermodynamics	4	C1
ME2151	Principles of Mechanical Engineering Materials	4	C1	ME3112	Mechanics of Machines	4	C1
ME3162	Manufacturing Processes <sup>2</sup> (BEng Module as shown in Table D)	4	CA	Free Elective 1		4	C1
EC2101	Microeconomic Analysis I	4	C2	EC2102	Microeconomic Analysis I	4	C2
GE 3	Thinking and Expression <sup>1</sup>	4	CA	GE 4	Human Cultures <sup>1</sup>	4	CA
<b>Sub-Total</b>		<b>24</b>		<b>Sub-Total</b>		<b>24</b>	
Year 3							
Semester 5		MCs		Semester 6		MCs	
ME3103	Mechanical Systems Design	6	C1	ME2142	Feedback Control Systems	4	C1
ME	Technical Elective 1	4	C1	ME	Technical Elective 2	4	C1
PH2223	Introduction To The Philosophy Of Technology (replaces EG2401)[Table 1] <sup>2</sup>	4	CA	Free Elective 2		4	C1
EC3101	Microeconomic Analysis II	4	C2	EC3102	Microeconomic Analysis II	4	C2
B.SocSci	Elective Level-3000	4	C2	GE 5	Singapore Studies <sup>1</sup>	4	CA
<b>Sub-Total</b>		<b>22</b>		<b>Sub-Total</b>		<b>20</b>	
Year 4							

Semester 7	MCs		Semester 8	MCs	
ME4101A B.Eng. Dissertation	4	C1	ME4101A B.Eng. Dissertation	4	CA
ME Technical Elective 3	4	C1	Pathway Requirement 2	4	C1
Pathway Requirement 1	4	C1	Any <u>one</u> B.A. (Econs) Module as shown in Table D	4	CA
EC3303 Econometrics I	4	C2	Free Elective	6	C1
FASS Elective Module (Level 3000)	4	C2			
<b>Sub-Total</b>	<b>20</b>		<b>Sub-Total</b>	<b>18</b>	
<b>Total MCs</b>	<b>180</b>				

**Notes:**

(\*) C1 – Counted as B.Eng. degree requirement; C2 – Counted as 2<sup>nd</sup> 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 requirements (Table 1).

Table 1 - 12 MCs of Essential Common Modules \*

Module Title	
MA1505 Mathematics I	These two modules are EC-recognized modules that students can use to fulfil Economics major requirements.
MA1506 Mathematics II	
PH2208 Applied Ethics / PH2218 Business Ethics / PH2223 Introduction to the Philosophy of Technology (fulfils the FoE requirement for the 3MC EG2401 Engineering Professionalism)	This module is accepted in lieu of the FASS Faculty exposure requirement as it involves some humanities.

Table 2 - Selected Elective Modules \*

BEng Programme	BEng modules that can be counted towards BA-Economics major requirements*	BA - Economics modules that can be counted towards BEng requirements*
Mechanical Engineering	ME3162 Manufacturing Processes ME4262 Automation in manufacturing EE4305 Introduction to Fuzzy/Neural Systems	EC3322 Industrial Organisation I EC4322 Industrial Organisation II EC4372 Technology & Innovation EC5324R Cost Benefit Analysis

