

NUS DEPARTMENT OF MECHANICAL ENGINEERING
B.Eng(ME)(Hons) & B.Soc.Sci (Hons) Double Degree Programme
(Matriculating AY17/18 and AY18/19)

Degree Requirements	Modular Credits (MCs)	Comments
(A) University Level Requirements	Total 20 MCs	Modules will be classified as CA
General Education (GE) – 5 Pillars	20 MCs	Only 1 set is required
(B) FASS Programme Requirements	Total 16 MCs	Modules will be classified as C2
Level 1000 Exposure modules (Asian studies)	4 MCs	Asian Studies modules: CH1101E, CL1101E, JS1101E, MS1101E, SE1101E, SN1101E.
Level 1000 Exposure module (Social Sciences)	4 MCs	EC1101E
Level 1000 Exposure module (Humanities)	4 MCs	Humanities modules
FASS Writing Module	4 MCs	FAS1102
(C) Economics Programme Requirements	Total 57 MCs	Modules will be classified as C2
Essential Modules	28 MCs	EC2101, EC2102, EC2104, EC3101, EC3102, EC3303 and EC3304
Elective Major Modules	29 MCs	At least 25MCs must be of Level 4000 and the remaining 4MCs of Level 3000 Economic Modules.
(D) Engineering Programme Requirements	Total 86 MCs	Modules will be classified as C1
Engineering Modules (Common Engineering modules, Discipline Core modules, Electives)	80 MCs	Includes Faculty & Discipline requirement (core, elective, projects & FYP Thesis). It is not compulsory for DDP students to do the Industrial Attachment
(E) Common Modules	Total 28 MCs	Modules will be classified as CA
These modules map towards both degrees.	One common module (4MCs)	See Table 1
	Two of the following modules (8MCs): - - One BEng Module - One BA (Econs) Module	See Table 2
	Integrated Honours Project (16MCs)	
(F) Unrestricted Elective Requirements	(Exempted)	
Unrestricted Elective	-	<i>Exempted under DDP Structure</i>
TOTAL	201 MCs (min)	
<p>1. FAS1102 is a compulsory writing module which is pre-allocated in Year 1.</p> <p>2. The 16MCs XF4401 Integrated Honours Project replaces the 15MC Economics Honours Thesis, 8MCs BEng Dissertation and 8MCs ME Technical Electives. Students who are not taking XF4401(Integrated Honours Project) are required to do the following modules to fulfill each programme requirements: -</p> <p>A) Students who are targeting Honours (Highest Distinction): <u>Engineering Programme</u> ME4101A B.Eng. Dissertation (8MCs) ME Technical Electives x 2 (8MCs)</p> <p><u>FASS Programme</u> EC4401 Honours Thesis (15MCs)</p> <p>B) Students who are not targeting Honours (Highest Distinction): <u>Engineering Programme</u> ME4101A B.Eng. Dissertation (8MCs) ME Technical Electives x 2 (8MCs)</p> <p><u>FASS Programme</u> Econs Electives x 3 Level-4000 (15MCs)</p>		

**Semester Schedule for B.Eng. (M.E.) & B.Soc.Sci. (Hons.)(Economics) Double Degree Programme
(AY2017/2018 and AY2018/2019)**

Year 1						
Semester 1	MCs		Semester 2	MCs		
MA1505 Mathematics I ²	4	C1 (*)	MA1512 Differential Equations for Engineering	2	C1	
PC1431 Physics IE	4	C1	MA1513 Linear Algebra & Differential Equations	2	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	C2	EC2104 Quantitative Methods for Economics Analysis	4	C2	
GER1000 Quantitative Reasoning (GE 1) ¹	4	CA(*)	GEQ1000 Asking Questions (GE2) ¹	4	CA	
			GE3 - GET Thinking and Expression ¹	4	CA	
Sub-Total	26		Sub-Total	26		
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 ¹ (BEng Module as shown in Table D)	4	CA	EC2102 Macroeconomic Analysis I	4	C2	
EC2101 Microeconomic Analysis I	4	C2	ST1131/ST1131A Introduction to Statistics ¹	4	CA	
ES1531 Critical Thinking Writing	4	C1	GE4 - GEH Human Culture	4	CA	
Sub-Total	24		Sub-Total	24		
Year 3						
Semester 5	MCs		Semester 6	MCs		
ME3103 Mechanical Systems Design	8	C1	ME2142 Feedback Control Systems	4	C1	
FASS Level-1000 Exposure module (Humanities)	4	C2	EG2401 Engineering Professionalism	2	C1	
EC3101 Microeconomic Analysis II	4	C2	EC3102 Macroeconomic Analysis II	4	C2	
EC3303 Econometrics I	4	C2	EC3304 Econometrics II	4	C2	
GE 5 Singapore Studies	4	CA	B.SocSci Elective Level-4000	5	C2	
Sub-Total	24		Sub-Total	19		

Year 4					
Semester 7	MCs		Semester 8	MCs	
B.Eng.(Hons.)/B.Soc.Sci.(Hons.)[Economics] Integrated Dissertation/Project ²	8	CA	B.Eng.(Hons.)/B.Soc.Sci.(Hons.)[Economics] Integrated Dissertation/Project ²	8	CA
B.SocSci Elective Level-3000	4	C2	Pathway Requirement 2	4	C1
FASS Level-1000 Exposure module (Asian Studies)	4	C2	B.SocSci Elective Level-4000 x 2	10	C2
Pathway Requirement 1	4	C1			
Sub-Total	20		Sub-Total	22	
Year 5					
Semester 9	MCs				
Any <u>one</u> B.A. (Econs) Module as shown in Table 2 ¹	4	CA			
B.SocSci Elective Level-4000 x 2	10	C2			
Free Elective* (ME3000)	2	C1			
Sub-Total	16				
Total MCs	201				

Notes:

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

- 1) Common module that also satisfies FASS requirements (Table 1 and Table 2).
- 2) Students who are not taking XF4401(Integrated Honours Project) are required to do the following modules to fulfill each programme requirements:-

A) Students who are targeting Honours (Highest Distinction):

Engineering Programme

ME4101A B.Eng. Dissertation (8MCs)

2 ME Technical Electives (8MCs)

FASS Programme

EC4401 Honours Thesis (15MCs)

B) Students who are not targeting Honours (Highest Distinction):

Engineering Programme

ME4101A B.Eng. Dissertation (8MCs)

ME Technical Electives x 2 (8MCs)

FASS Programme

Econs Electives x 3 Level-4000 (15MCs)

- 3) Free Elective can be any modules. Students on SEP who have overflow of workload may use SEP Credits to count 2MCs to this Free Elective. Otherwise students may check with the Dept on ME3000 Independent Study Module which is 2MCs.

Table 1 – Essential Common Module

ST1131 Introduction to Statistic (For MSE & ME)	To replace the essential module EC2303 Foundations of Econometrics
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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