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

Degree Requirements	Modular Credits (MCs)	Comments
(A) University Level Requirements	**Total 20 MCs**	
General Education (GE)	20 MCs	
(B) FASS Programme Requirements	**Total 8 MCs**	
Level 1000 Exposure modules (Asian studies)	4 MCs	Asian Studies modules: CH1101E, CL1101E, JS1101E, MS1102E, SE1101E, SN1101E.
Level 1000 Exposure modules (Social Sciences)	4 MCs	EC1101E
(C) Economics Programme Requirements	**Total 52 MCs**	
Essential Modules	24 MCs	
Elective Major Modules	28 MCs	At least 20MCs must be of Level-4000 and the remaining 8MCs of Level-3000 Economics modules
(D) Engineering Programme Requirements	**Total 76 MCs**	
Engineering Modules (Common Engineering modules, Discipline Core modules, Electives)	76 MCs	
(E) Common Modules	**Total 44 MCs**	
These modules map towards both degrees.	FAS1102 (replaces ES2331)[1]	
	XF4401[2]	
	Four common essential modules (16 *MCs*): MA1505, MA1506, PH2208/PH2218/PH2223, ST1131/ST1131A.	See Table 1
	8MCs of electives: Any One BEng Module Any One BA(Econs) Module	See Table 2
(F) Unrestricted Elective Requirements	**(Exempted)**	
Unrestricted Elective	-	*Exempted under DDP Structure*
TOTAL	**200 MCs (min)**	

1. FAS1102 is a compulsory writing module which is pre-allocated in Year 1.

2. The 16MC 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:-

A) Students who are targeting Honours (Highest Distinction):
   Engineering Programme
   ME4101A B.Eng. Dissertation (8MCs)
   ME Technical Electives x 2 (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)

Semester Schedule for B.Eng. (M.E.) & B.Soc.Sci. (Hons.)(Economics) Double Degree Programme （2016/2017）

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 (*)	ES1531 Critical Thinking 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)[1]	4	CA	GEQ Asking Questions (GE2)[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 [2] (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 [2]	4	CA
GE 3 Thinking and Expression[1]	4	CA	GE 4 Human Cultures[1]	4	CA
Sub-Total	**24**		**Sub-Total**	**24**	
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	EC3102 Macroeconomic Analysis II	4	C2
PH2223 Introduction To The Philosophy Of Technology (replaces EG2401)[Table 1] [2]	4	CA	EC3303 Econometrics I	4	C2
EC3101 Microeconomic Analysis II	4	C2	B.SocSci Elective Level-3000	4	C2
B.SocSci Elective Level-3000	4	C2	GE 5 Singapore Studies [1]	4	CA
Sub-Total	**22**		**Sub-Total**	**20**	
Year 4						

Semester 7	MCs		Semester 8	MCs	
B.Eng.(Hons.)/B.Soc.Sci.(Hons.)[Economics] Integrated Dissertation/Project [3]	8	CA	B.Eng.(Hons.)/B.Soc.Sci.(Hons.)[Economics] Integrated Dissertation/Project [3]	8	CA
Any <u>one</u> B.A. (Econs) Module as shown in Table 2 [2]	4	CA	Pathway Requirement 2	4	C1
EC3304 Econometrics II	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				
B.SocSci Elective Level-4000 x 2	10	C2			
Free Electives	6	C1			
Sub-Total	**16**				
Total MCs	**200**				

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 requirements (Table 1).

3)   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)
   ME Technical Electives x 2 (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)

Table 1 - 16 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.
- CE2407 Engineering and Uncertainty Analysis (for CE & EVE students) - CN3421 Process Modelling & Numerical Simulation (for ChE students) - EE2012 Analytical Methods in Electrical and Computer Engineering (for EE students) - ST1131/ST1131A Introduction to Statistics (for ISE, MSE and ME students) - ST2334 Probability & Statistics (for CEG students) - BN2102 Bioengineering Data Analysis (for BME students)	To replace the essential module EC2303: Foundations of Econometrics. These modules are already alternative prerequisites for the later essential module EC3303: Econometrics I. Conversely, if a DDP student has already read EC2303, he must still read one of the modules listed on the left side of the table.

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