

NUS DEPARTMENT OF MECHANICAL ENGINEERING
B.Eng(ME) & BBA. Double Hons. Degree Programme (Matriculating AY14/15)

MODULAR REQUIREMENTS	MCS	NOTES
(A) UNIVERSITY LEVEL REQUIREMENTS	12	
General Education Modules (GEM)		
- GEM B (From Group B: Humanities and Social Sciences):	4	
- GEM A	4	
Singapore Studies (SS) Module	4	
Breadth		Exempted under DDP Structure
(B) Business Programme Requirements	76	
Foundation Modules	48	See Table A for the list of Foundation Modules
Honours Dissertation	12	
Essential Modules (Specialisation Modules)	8	
Compulsory Field Service Project	8	
(C) Engineering Programme Requirements	83	
Engineering Modules	83	BEng Program requirements including Faculty & Discipline specific requirements (core, elective, projects & FYP)
(D) Common Modules	32	
Four Common Modules	16	See Table B
Four of the following modules: - Two BEng Modules - Two BBA Modules	16	See Table C
(E) Unrestricted Elective Requirements	-	Exempted under DDP Structure
TOTAL:	203 MCS (min)	

Sample Semester Schedule for B.Eng. (M.E.) & B.B.A. Double Hons. Degree Programme (Matriculating AY14/15)

Year 1						
Semester 1		MCs		Semester 2		MCs
MA1505	Mathematics I (replaces DSC1007) [Table B]	4	CA*	MA1506	Mathematics II	4
PC1431	Physics IE	4	C1*	ES1501X ¹	Critical Thinking and Expository Writing [Table B]	4
EG1109	Statics and Mechanics of Materials	4	C1	EG1108	Electrical Engineering	3
CS1010E	Programming Methodology	4	C1	ME2103	Engineering Visualisation and Modelling	3
ACC1002	Financial Accounting Compulsory Foundation Business Module 1 [Table A]	4	C2*	MKT1003	Marketing Compulsory Foundation Business Module 2 [Table A]	4
Sub-total		20		Sub-total		18
Year 2						
Semester 3				Semester 4		
ME2113	Mechanics of Materials I	3	C1	ME2101	Fundamentals of Mechanical Design	4
ME2121	Engineering Thermodynamics	3	C1	ME2114	Mechanics of Materials II	3
ME2151	Principles of Mechanical Engineering Materials	4	C1	ME2135	Fluid Mechanics II	4
ME2134	Fluid Mechanics I	4	C1	ME2143	Sensors and Actuators	4
ME3162	Manufacturing Processes	4	C1	ME3112	Mechanics of Machines	4
ACC2002	Managerial Accounting Compulsory Foundation Business Module 3 [Table A]	4	C2	BSP1005	Managerial Economics Compulsory Foundation Business Module 4 [Table A]	4
Sub-total		22		Sub-total		23
Year 3						
Semester 5				Semester 6		
ME2142	Feedback Control Systems	4	C1	ME3102	Mechanical Systems Design II	4
ME3101	Mechanical Systems Design I	4	C1	BSP1004	Legal Environment of Business Compulsory Foundation Business Module 5 [Table A]	4
ME3122	Heat Transfer	4	C1	BSP2005	Asia Pacific Business Environment Compulsory Foundation Business Module 6 [Table A]	4
MNO1001	Management & Organisation (replaces HR2002) [Table B]	4	CA	BSP2001	Macro and International Economics Compulsory Foundation Business Module 7 [Table A]	4
MNO2007	Leadership and Ethics (replaces EG2401) [Table B]	4	CA		Business Essential Modules 1	4
Sub-total		20		Sub-total		20

Year 4					
Semester 7			Semester 8		
ME4101A B.Eng. Dissertation (over 2 semesters)	4	C1	ME4101A B.Eng. Dissertation (over 2 semesters)	4	C1
BEng Common Electives 1 [Table C] ²	4	CA	FIN2004 Finance Compulsory Foundation Business Module 10 [Table A]	4	C2
MNO2009 Entrepreneurship Compulsory Foundation Business Module 8 [Table A]	4	C2	DSC2008 Business Analytics – Data & Decisions Compulsory Foundation Business Module 11 [Table A]	4	C2
DSC2006 Operations Management Compulsory Foundation Business Module 9 [Table A]	4	C2	BSP3001 Strategic Management Compulsory Foundation Business Module 12 [Table A]	4	C2
FSP4003 Field Service Project (Can be done over 1 or 2 semesters)	4	C2	FSP4003 Field Service Project	4	C2
Sub-total	20		Sub-total	20	
Year 5					
Semester 9			Semester 10		
B.B.A. Thesis	6	C2	B.B.A. Thesis	6	C2
IE4240 Project Management (BEng Common Electives 2) [Table C] ²	4	CA	B.B.A. Common Electives 2 [Table C] ²	4	CA
B.B.A. Common Electives 1 [Table C] ²	4	CA	Business Essential Modules 2	4	C2
GEM B	4	CA	GEM A	4	CA
Singapore Studies (SS) Module	4	CA			
Sub-total	22		Sub-total	18	
Total MCs				203	

Notes:

¹DDP students are encouraged to read ES1501X. However, in the event that students are not able to get ES1501X, they have to read one of the following choices as classified :

- ES1531 (C1) + ES2002 (CA)
- ES1531 (C1) + ES2331 (CA)
- USP Writing and Critical Thinking Module (CA)
- IEM1201X (C1) + IEM2201X (CA)

²THREE (3) modules from Table C with at least ONE (1) BEng and ONE (1) BBA module. Subject to the availability of common modules for the respective department of study and area of specialization. Students have to read two modules (one BEng module & one BBA module) for each common module requirement that is not satisfied subject to approval of FoE/Biz.

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

Table A: List of Compulsory Business Foundation Modules AY2012/2013 onwards

Module Code	Module Title
ACC1002	Financial Accounting
MKT1003	Marketing
BSP1004	Legal Environment of Business
BSP1005	Managerial Economics
BSP2001	Macro and International Economics
ACC2002	Managerial Accounting
FIN2004	Finance
BSP2005	Asia Pacific Business Environment
DSC2006	Operations Management
DSC2008	Business Analytics – Data & Decisions
MNO2009	Entrepreneurship (NEW)
BSP3001	Strategic Management

Table B: List of 16 MCs of Common Modules that map to part of the Business Foundation Modules & Engineering Requirements for all BBA programmes from AY2012/2013 onwards.

Module Code and Title
<p>DDP students are strongly encouraged to read ES1501X (e.g. ES1501 A or ES1501B) so that they do not need to read an additional communications module which will add to the total workload. However, if you are a DDP student who is also in the USP or University Town residential programme, the respective specially-tailored writing and communication modules that you are reading will be deemed as the equivalent of ES1501X.</p> <ul style="list-style-type: none"> • ES1501X Critical Thinking and Expository Writing (4MCs) or • ES1531 Critical Thinking & Writing (4MCs) + ES2002 Business Communication (4MCs) or • ES1531 Critical Thinking & Writing (4MCs) + ES2331 Communicating Engineering (4MCs) or • USP Writing and Critical Thinking module (4MCs) if you are a USP student or • Ideas and Exposition Modules offered by the University Town if you are in the University Town residential programme. These modules are: IEM1201x (on a graded basis) and IEM2201x (on a graded basis), which may be read in lieu of ES1531 and ES2331, respectively. <p>Depending on the options that you have chosen, the modules will be classified as:</p> <ul style="list-style-type: none"> • ES1501X (CA) • ES1531 (C1) + ES2002 (CA) • ES1531 (C1) + ES2331 (CA) • USP Writing and Critical Module Module (CA) • IEM1201X (C1) + IEM2201X (CA) <p>Legend CA = grade included in calculating Cumulative Average Points (CAPs) of both degrees C1 = grade included in calculating CAP of primary degree</p> <p>- MNO2007 Leadership and Ethics (replaces EG2401 Engineering Professionalism) - MNO1001 Management & Organization (replaces HR2002 Understanding Human Relations in the New Economy) - MA1505 Mathematics I (replaces DSC1007 Business Analytics – Models & Decisions)</p>

Table C: Common Modules in the BEng & BBA Double Degree programme.***

BEng Programmes	BEng modules that can be counted towards BBA requirements*	BBA modules that can be counted towards BEng requirements*
Mechanical Engineering	IE4240 Project Management IE2110 Operations Research I <i>(anti-req: DSC3214 Int. to Optimization)</i> IE2130 Quality Engineering I <i>(anti-req: DSC3219 Quality Management)</i>	DSC3201 Supply Chain Management DSC3214 Introduction to Optimisation DSC4211B/DSC4213 Seminars in Ops & Supply Chain Management: Analytical Tools for Consulting DSC5211B Analytical Tools for Consulting