NUS DEPARTMENT OF MECHANICAL ENGINEERING

BEng (ME) & BBA Single Hons. Degree Programme (Matriculating AY2021/2022 and onwards)

Single-Honour Degree Requirements		Comments
(A) Common for CDE & BIZ	**Total 24 MCs**	
General Education pillars	24 MCs	Refer **Appendix A**
(B) Business Programme Requirements	**Total 62 MCs**	
Core Modules	46 MCs	*Please see **Table A** for details.*
BIZ Specialisation Modules	16 MCs	Refer **Appendix A**
(C) CDE Requirements	**Total 36 MCs**	
CDE Common Curriculum	36MCs	Refer **Appendix A**
(D) ME Major Requirements	**Total 56 MCs**	Refer **Appendix A**
Engineering Modules	56 MCs	• Basket of Mathematics modules (8 MCs) • Internship (10 MCs)[2] • EG2401A Engineering Professionalism (2 MCs) • Engineering major: core modules (36MCs)
(E) Common Modules	**Total 4 MCs**	
These modules count towards both degrees.	4 MCs	Refer **Table B**
(F) Unrestricted Elective Modules	-	
Unrestricted Elective	-	
TOTAL (minimum)	**182 MCs**	

Table A: BBA Core Modules*:*

DAO1704	Decision Analytics using Spreadsheets
DAO2702	Programming for Business Analytics
DAO2703	Operations and Technology Management
BSP1702	Legal Environment of Business
BSP1703	Managerial Economics
BSP2701	Global Economy (2 MCs)
BSP3701	Strategic Management
ACC1701	Accounting for Decision Makers
MKT1705	Principles of Marketing
MNO1706	Organisational Behaviour
MNO2705	Leadership and Decision Making under Uncertainty
FIN2704	Finance

Table B: BIZ modules that can be double-counted as electives in each CDE major:

DOS3701	Supply Chain Management
*DBA3701	Introduction to Optimisation
DBA4811	Analytical Tools for Consulting

* DBA3701 Introduction to Optimisation and IE2110 Operations Research I are mutually precluded. Students who have completed either module are not allowed to read the other module.

Appendix A

<mark>With</mark> double-counting of one module (4 MCs) between CDE major and BIZ specialisation:

Degree Requirements – Single Honours	MCs
General Education pillars (common for CDE and BIZ): • Data Literacy: GEA1000 Quantitative Reasoning with Data • Digital Literacy: CS1010% Programming Methodology (any variant) • Critique and Expression: ES2631 Critique and Communication of Thinking and Design [1] • Cultures and Connections (GEC) • Singapore Studies (GESS) • Communities and Engagement – offered from AY22/23	24
Other modules in CDE Common Curriculum: • DTK1234 Design Thinking • EG1311 Design and Make • IE2141 System Thinking and Dynamics • EE2211 Introduction to Machine Learning • EG2501 Liveable Cities • CDE2000 Creating Narratives • PF1101 Fundamentals of Project Management • Integrated Project (8 MCs) – (ME4101A or ME4101B or EG4301 for iDP)	36
CDE major: • Basket of Mathematics modules (8 MCs) • Internship (10 MCs) [2] • EG2401A Engineering Professionalism (2 MCs) • Engineering major: core modules (36 MCs)	56
BIZ non-credit graduating requirements [3]	-
BIZ core modules: • DAO1704 Decision Analytics using Spreadsheets • DAO2702 Programming for Business Analytics • BSP1703 Managerial Economics • BSP2701 Global Economy (2 MCs) • ACC1701 Accounting for Decision Makers • BSP1702 Legal Environment of Business • MKT1705 Principles of Marketing • MNO1706 Organisational Behaviour • FIN2704 Finance • DAO2703 Operations and Technology Management • MNO2705 Leadership and Decision Making under Uncertainty • BSP3701 Strategic Management	46
BIZ specialisation modules	16
Common module that can be double-counted between CDE major and BIZ specialisation (refer to Appendix B)	4
TOTAL	**182**

[1] *DDP students are exempted from ES2002 Business Communication for Leaders (BBA) if they read ES2531, UWC2101% (for USP), or ES1601 (for RVRC). BIZ students who withdraw from the DDP after reading ES2531 will be considered as having fulfilled the Critique and Expression pillar, but would have to read ES2002.*

[2] *DDP students are <u>not</u> exempted from the compulsory internship in CDE.*

[3] *These include academic orientation and career preparation modules.*

Without double-counting of one module (4 MCs) between CDE major and BIZ specialisation:

Degree Requirements – Single Honours	MCs
General Education pillars (common for CDE and BIZ): • Data Literacy: GEA1000 Quantitative Reasoning with Data • Digital Literacy: CS1010% Programming Methodology (any variant) • Critique and Expression: ES2631 Critique and Communication of Thinking and Design [1] • Cultures and Connections (GEC) • Singapore Studies (GESS) • Communities and Engagement – offered from AY22/23	24
Other modules in CDE Common Curriculum: • DTK1234 Design Thinking • EG1311 Design and Make • IE2141 System Thinking and Dynamics • EE2211 Introduction to Machine Learning • EG2501 Liveable Cities • CDE2000 Creating Narratives • PF1101 Fundamentals of Project Management • Integrated Project (8 MCs)	36
CDE major: • Basket of Mathematics modules (8 MCs) • Internship (10 MCs) [2] • EG2401A Engineering Professionalism (2 MCs) • Engineering major: core modules and one (1) **ME technical elective (40 MCs)**	**60**
BIZ non-credit graduating requirements [3]	-
BIZ core modules: [2] • DAO1704 Decision Analytics using Spreadsheets • DAO2702 Programming for Business Analytics • BSP1703 Managerial Economics • BSP2701 Global Economy (2 MCs) • ACC1701 Accounting for Decision Makers • BSP1702 Legal Environment of Business • MKT1705 Principles of Marketing • MNO1706 Organisational Behaviour • FIN2704 Finance • DAO2703 Operations and Technology Management • MNO2705 Leadership and Decision Making under Uncertainty • BSP3701 Strategic Management	46
BIZ specialisation modules	**20**
TOTAL	**186**

[1] DDP students are exempted from ES2002 Business Communication for Leaders (BBA) if they read ES2531,UWC2101% (for USP), or ES1601 (for RVRC). BIZ students who withdraw from the DDP after reading ES2531 will be considered as having fulfilled the Critique and Expression pillar, but would have to read ES2002.

[2] DDP students are _not_ exempted from the compulsory internship in CDE.

[3] These include academic orientation and career preparation modules.

Sample Schedule for BEng (ME) & BBA Single Hons. Degree Programme
(Matriculating AY2021/2022 and onwards)

Semester 1	MC		Semester 2	MC	
ME1102 Engineering Principles & Practice I	4	C1	ME2104 Engineering Principles & Practice II	4	C1
CS1010E Programming Methodology (GE 1)	4	CA	MA1512 Differential Equations for Engineering	2	C1
MA1505 Mathematics I	4	C1	MA1513 Linear Algebra & Differential Equations	2	C1
EG1311 Design and Make	4	C1	GEA1000 Quantitative Reasoning with Data (GE 2)	4	CA
ACC1701 Accounting for Decision Makers	4	C2	DTK1234 Design Thinking	4	C1
MNO1706 Organization Behaviour	4	C2	PF1101 Fundamentals of Project Management	4	C1
			DAO1704 Decision Analytics using Spreadsheet	4	C2
Sub-total	**24**		**Sub-total**	**24**	
Semester 3	MC		Semester 4	MC	
ES2631 Critique and Communication of Thinking and Design (GE 3)	4	CA	EG2501 Liveable Cities	4	C1
IE2141 Systems Thinking and Dynamics	4	C1	EE2211 Introduction to Machine Learning	4	C1
ME2102 Engineering Innovation and Modelling	4	C1	ME2121 Engineering Thermodynamics and Heat Transfer	4	C1
ME2112 Strength of Materials	4	C1	ME2134 Fluid Mechanics I	4	C1
GE4	4	CA	GE5	4	CA
MKT1705 Principles of Marketing	4	C2	BSP1702 Legal Environment of Business	4	C2
Sub-total	**24**		**Sub-total**	**24**	
Semester 5	MC		Semester 6	MC	
EG3611A Industrial Attachment	10	C1	ME2162 Manufacturing Processes	4	C1
EG2401A Engineering Professionalism	2	C1	ME2115 Mechanics of Machines	4	C1
GE6	4	CA	ME2142 Feedback Control Systems	4	C1
			BSP1703 Managerial Economics	4	C2
			BSP2701 Global Economy	2	C2
			DAO2702 Programming for Business Analytics	4	C2
Sub-total	**16**		**Sub-total**	**22**	
Semester 7	MC		Semester 8	MC	
ACC1701 Accounting for Decision Makers	4	C2	ME4101B Mechanical Systems Design **OR** ME4101A B.Eng. Dissertation	4	C1
DAO2703 Operations and Technology Management	4	C2	CDE2000 Creating Narratives	4	C1
MNO2702 Leadership and Decision Making under Uncertainty	4	C2	FIN2704 Finance	4	C2
BIZ Specialisation Module 1	4	C2	BIZ Specialisation Module 3	4	C2
BIZ Specialisation Module 2	4	C2			
Sub-total	**20**		**Sub-total**	**16**	
Semester 9	MC		Semester 10	MC	
ME4101B Mechanical Systems Design **OR** ME4101A B.Eng. Dissertation	4	C1			
BSP3701 Strategic Management	4	C2			
BIZ Specialisation Module 4	4	C2			
Sub-total	**12**				
Total				**182**	

Notes:

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

Please note that this is a sample schedule. You may customize your own schedule by taking into consideration the semester that the modules are offered and the pre- and co-requisites of each module.