

AU Requirement for Mechanical Engineering with Second Major in Business (MEBM) **Mainstream**
 Students admitted from AY2020/2021

Year of Study	Number of Academic Units (AUs)								
	Major Requirements		General Education Requirement (GER)					Total	
			GER Core	GER Prescribed Electives					UE
	Core	Major PE		BM	LA	STS	Any Category (BM, LA, STS)		
1	25	0		8					
2	24	0	4					6	34
3	26	0	2					4	32
4	15	12	0					8	35
Total	90	12	14	0				32	148

Course Code and Title	Type	AU	Pre-requisite/ Remarks
YEAR 1 SEMESTER 1			
MH1810 Mathematics I	C	3	
PH1011 Physics	C	3	Pass A Level Physics PH1012 is only for Poly Direct Entry Students and JC students without A Level Physics
OR PH1012 Physics A		OR 4	
FE1073 Introduction to Engineering and Practices	C	1	
MA2003 Introduction to Thermo-fluids	C	3	
HW0188 Effective Communication	GC	2	HW0001 (co-requisite)
GC0001 Sustainability: Seeing Through The Haze	GC	1	
ET0001 Enterprise & Innovation	GC	1	
HY0001 Ethics and Moral Reasoning	GC	1	
AD1101 Financial Management	UE	4	
AB1201 Financial Management	UE	3	
Total		22	
YEAR 1 SEMESTER 2			
MH1811 Mathematics II	C	3	
Engineering Fundamentals 2	C	3	
MA1001 Dynamics	C	3	Having read PH1011/PH1012/CY1305 and MH1810/MH2812/ CY1201
MA1008 Introduction to Computational Thinking	C	3	
MA2001 Mechanics of Materials	C	3	
AB1501 Marketing	UE	3	
BE1401 Business Operations and Processes	UE	4	
EG0001 Engineers & Society	GC	3	
Total		25	
YEAR 2 SEMESTER 1			
MA2002 Theory of Mechanism	C	3	MA1001
MA2004 Manufacturing Process	C	3	
MA2006 Engineering Mathematics	C	3	FE1006/MH1810 and FE1007/MH1811 or CY1201 and CY1203 or MA1003/MH2812
MA2009 Introduction to Electrical Circuits and Electronics	C	3	
MA2071 Laboratory Experiments (ME)	C	1	
ML0003 Kickstart Your Career Success	GC	1	
AB1301 Business Law	UE	3	
Total		17	
YEAR 2 SEMESTER 2			
MA2005 Engineering Graphics	C	3	
MA2007 Thermodynamics	C	3	MA2003
MA2079 Engineering Innovation and Design	C	2	Semester 2 with 1 week in Special Term
MA3006 Fluid Mechanics	C	3	MA2003
MA0218 Introduction to Data Science and Artificial Intelligence	GC	3	
AB1601 Organisation Behaviour & Design	UE	3	
Total		17	

YEAR 3 SEMESTER 1			
MA3001 Machine Element Design	C	3	Having read MA2001 & MA2002
MA3002 Solid Mechanics and Vibration	C	3	MA2001
MA3003 Heat Transfer	C	3	MA2007
MA3004 Mathematical Methods in Engineering	C	3	MH1810 & MH1811 / CY1203 / MH2812 / FE1006 & FE1007 / FE1006 & MH1811 / CY1602 / MH2810
MA3005 Control Theory	C	3	Having Read MA2006
MA3071 Engineering Experiments (ME)	C	1	
HW0288 Engineering Communication	GC	2	HW0188
Advanced/General Business Course 1	UE	4	
Total		22	
YEAR 3 SEMESTER 2			
MA3080 Professional Internship	C	10	Students may do MA3075 Professional Attachment in Year 2 Special Semester (5 AU) and UE courses in any semester (5 AU) instead of MA3080.
Total		10	
YEAR 4 SEMESTER 1			
MA4079 Final Year Project	C	4	Year 4 standing, 2 semesters
MA4001 Engineering Design	C	4	Having Read MA3001
MA48XX Major-PE 1	PE	3	
MA48XX Major-PE 2	PE	3	
Advanced/General Business Course 2	UE	4	
Total		18	
YEAR 4 SEMESTER 2			
MA4079 Final Year Project	C	4	Year 4 standing, 2 semesters
MA4002 Fluid Dynamics	C	3	MA3006
MA48XX Major-PE 3	PE	3	
MA48XX Major-PE 4	PE	3	
Advanced/General Business Course 3	UE	4	
Total		17	
GRAND TOTAL (Year 1 to 4)		148	

Advanced/General Business Courses: Choose 3
 BF2201 Investments
 BM2501 Market Behaviour
 BM2502 Market Intelligence
 BE2601 Management Principles, Skills and Competencies

AU Requirement for Mechanical Engineering with Second Major in Business (MEBM) **Design Stream**
 Students admitted from AY2020/2021

Year of Study	Number of Academic Units (AUs)								
	Major Requirements		General Education Requirement (GER)					Total	
			GER Core	GER Prescribed Electives					UE
	Core	Major PE		BM	LA	STS	Any Category (BM, LA, STS)		
1	25	0	8					14	47
2	24	0	4					6	34
3	29	0	2					0	31
4	12	12	0					12	36
Total	90	12	14	0				32	148

Course Code and Title	Type	AU	Pre-requisite/ Remarks
YEAR 1 SEMESTER 1			
MH1810 Mathematics I	C	3	
PH1011 Physics	C	3	Pass A Level Physics PH1012 is only for Poly Direct Entry Students and JC students without A Level Physics
OR PH1012 Physics A		OR 4	
FE1073 Introduction to Engineering and Practices	C	1	
MA2003 Introduction to Thermo-fluids	C	3	
HW0188 Effective Communication	GC	2	HW0001 (co-requisite)
GC0001 Sustainability: Seeing Through The Haze	GC	1	
ET0001 Enterprise & Innovation	GC	1	
HY0001 Ethics and Moral Reasoning	GC	1	
AD1101 Financial Management	UE	4	
AB1201 Financial Management	UE	3	
Total		22	
YEAR 1 SEMESTER 2			
MH1811 Mathematics II	C	3	
Engineering Fundamentals 2	C	3	
MA1001 Dynamics	C	3	Having read PH1011/PH1012/CY1305 and MH1810/MH2812/ CY1201
MA1008 Introduction to Computational Thinking	C	3	
MA2001 Mechanics of Materials	C	3	
AB1501 Marketing	UE	3	
BE1401 Business Operations and Processes	UE	4	
EG0001 Engineers & Society	GC	3	
Total		25	
YEAR 2 SEMESTER 1			
MA2002 Theory of Mechanism	C	3	MA1001
MA2004 Manufacturing Process	C	3	
MA2006 Engineering Mathematics	C	3	FE1006/MH1810 and FE1007/MH1811 or CY1201 and CY1203 or MA1003/MH2812
MA2014 Product Presentation	C	3	
MA2071 Laboratory Experiments (ME)	C	1	
ML0003 Kickstart Your Career Success	GC	1	
AB1301 Business Law	UE	3	
Total		17	
YEAR 2 SEMESTER 2			
MA2005 Engineering Graphics	C	3	
MA2009 Introduction to Electrical Circuits and Electronics	C	3	
MA2013 Creative Thinking and Design	C	3	
MA2079 Engineering Innovation and Design	C	2	Semester 2 with 1 week in Special Term
MA0218 Introduction to Data Science and Artificial Intelligence	GC	3	
AB1601 Organisation Behaviour & Design	UE	3	
Total		17	

YEAR 3 SEMESTER 1			
MA3001 Machine Element Design	C	3	Having read MA2001 & MA2002
MA3002 Solid Mechanics and Vibration	C	3	MA2001
MA3004 Mathematical Methods in Engineering	C	3	MH1810 & MH1811 / CY1203 / MH2812 / FE1006 & FE1007 / FE1006 & MH1811 / CY1602 / MH2810
MA3005 Control Theory	C	3	Having Read MA2006
MA3006 Fluid Mechanics	C	3	MA2003
MA3010 Thermodynamics & Heat Transfer	C	3	MA2003
MA3071 Engineering Experiments (ME)	C	1	
HW0288 Engineering Communication	GC	2	HW0188
Total		21	
YEAR 3 SEMESTER 2			
MA3080 Professional Internship	C	10	Students may do MA3075 Professional Attachment in Year 2 Special Semester (5 AU) and UE courses in any semester (5 AU) instead of MA3080.
Total		10	
YEAR 4 SEMESTER 1			
MA4079 Final Year Project	C	4	Year 4 standing, 2 semesters
MA4011 Engineering Product Design	C	4	Having Read MA3001
MA48XX Major-PE 1	PE	3	
MA48XX Major-PE 2	PE	3	
Advanced/General Business Course 1	UE	4	
Total		18	
YEAR 4 SEMESTER 2			
MA4079 Final Year Project	C	4	Year 4 standing, 2 semesters
MA48XX Major-PE 3	PE	3	
MA48XX Major-PE 4	PE	3	
Advanced/General Business Course 2	UE	4	
Advanced/General Business Course 3	UE	4	
Total		18	
GRAND TOTAL (Year 1 to 4)		148	

Advanced/General Business Courses: Choose 3
 BF2201 Investments
 BM2501 Market Behaviour
 BM2502 Market Intelligence
 BE2601 Management Principles, Skills and Competencies

AU Requirement for Mechanical Engineering with Second Major in Business (MEBM) **Robotics and Mechatronics Stream**
Students admitted from AY2020/2021

Year of Study	Number of Academic Units (AUs)								
	Major Requirements		General Education Requirement (GER)						Total
			GER Core	GER Prescribed Electives				UE	
	Core	Major PE		BM	LA	STS	Any Category (BM, LA, STS)		
1	25	0		8					
2	24	0	4					6	34
3	29	0	2					0	31
4	12	12	0					12	36
Total	90	12	14	0				32	148

Course Code and Title	Type	AU	Pre-requisite/ Remarks
YEAR 1 SEMESTER 1			
MH1810 Mathematics I	C	3	
PH1011 Physics	C	3	Pass A Level Physics PH1012 is only for Poly Direct Entry Students and JC students without A Level Physics
OR PH1012 Physics A		OR 4	
FE1073 Introduction to Engineering and Practices	C	1	
MA2003 Introduction to Thermo-fluids	C	3	
HW0188 Effective Communication	GC	2	HW0001 (co-requisite)
GC0001 Sustainability: Seeing Through The Haze	GC	1	
ET0001 Enterprise & Innovation	GC	1	
HY0001 Ethics and Moral Reasoning	GC	1	
AD1101 Financial Management	UE	4	
AB1201 Financial Management	UE	3	
Total		22	
YEAR 1 SEMESTER 2			
MH1811 Mathematics II	C	3	
Engineering Fundamentals 2	C	3	
MA1001 Dynamics	C	3	Having read PH1011/PH1012/CY1305 and MH1810/MH2812/ CY1201
MA1008 Introduction to Computational Thinking	C	3	
MA2001 Mechanics of Materials	C	3	
AB1501 Marketing	UE	3	
BE1401 Business Operations and Processes	UE	4	
EG0001 Engineers & Society	GC	3	
Total		25	
YEAR 2 SEMESTER 1			
MA2002 Theory of Mechanism	C	3	MA1001
MA2004 Manufacturing Process	C	3	
MA2006 Engineering Mathematics	C	3	FE1006/MH1810 and FE1007/MH1811 or CY1201 and CY1203 or MA1003/MH2812
MA2012 Introduction to Mechatronics System Design	C	3	
MA2071 Laboratory Experiments (ME)	C	1	
ML0003 Kickstart Your Career Success	GC	1	
AB1301 Business Law	UE	3	
Total		17	
YEAR 2 SEMESTER 2			
MA2005 Engineering Graphics	C	3	
MA2009 Introduction to Electrical Circuits and Electronics	C	3	
MA2011 Mechatronics Systems Interfacing	C	3	
MA2079 Engineering Innovation and Design	C	2	Semester 2 with 1 week in Special Term
MA0218 Introduction to Data Science and Artificial Intelligence	GC	3	
AB1601 Organisation Behaviour & Design	UE	3	
Total		17	

YEAR 3 SEMESTER 1			
MA3001 Machine Element Design	C	3	Having read MA2001 & MA2002
MA3002 Solid Mechanics and Vibration	C	3	MA2001
MA3004 Mathematical Methods in Engineering	C	3	MH1810 & MH1811 / CY1203 / MH2812 / FE1006 & FE1007 / FE1006 & MH1811 / CY1602 / MH2810
MA3005 Control Theory	C	3	Having Read MA2006
MA3006 Fluid Mechanics	C	3	MA2003
MA3010 Thermodynamics & Heat Transfer	C	3	MA2003
MA3071 Engineering Experiments (ME)	C	1	
HW0288 Engineering Communication	GC	2	HW0188
Total		21	
YEAR 3 SEMESTER 2			
MA3080 Professional Internship	C	10	Students may do MA3075 Professional Attachment in Year 2 Special Semester (5 AU) and UE courses in any semester (5 AU) instead of MA3080.
Total		10	
YEAR 4 SEMESTER 1			
MA4079 Final Year Project	C	4	Year 4 standing, 2 semesters
MA48XX Major-PE 1	PE	3	
MA48XX Major-PE 2	PE	3	
Advanced/General Business Course 1	UE	4	
Advanced/General Business Course 2	UE	4	
Total		18	
YEAR 4 SEMESTER 2			
MA4079 Final Year Project	C	4	Year 4 standing, 2 semesters
MA4012 Mechatronics Engineering Design	C	4	Having read MA3001, Sem 2 only
MA48XX Major-PE 3	PE	3	
MA48XX Major-PE 4	PE	3	
Advanced/General Business Course 3	UE	4	
Total		18	
GRAND TOTAL (Year 1 to 4)		148	

Advanced/General Business Courses: Choose 3
 BF2201 Investments
 BM2501 Market Behaviour
 BM2502 Market Intelligence
 BE2601 Management Principles, Skills and Competencies