

Double Degree in Bachelor of Engineering (Aerospace Engineering) and Bachelor of Arts (Economics)

For students admitted to **First Year Engineering from AY2016/2017**

List of courses that contribute towards GPA Computation for BEng (Aerospace Engineering)					AU Load
Discipline Requirement	Core	PH1011	Physics**	3	91 AUs (PA) / 96 AUs (PI)
		MH1810	Mathematics 1	3	
		MH1811	Mathematics 2	3	
		FE1008	Computing	3	
		MA1001	Dynamics	3	
		MA1700	Aerospace Discovery Course	1	
		MA1701	Introduction to Aerospace Engineering	3	
		MA2001	Mechanics of Materials	3	
		MA2003	Introduction to Thermo-fluids	3	
		MA2005	Engineering Graphics	3	
		MA2006	Engineering Mathematics	3	
		MA2007	Thermodynamics	3	
		MA2072	Laboratory Experiments (AE)	1	
		MA2079	Engineering Innovation and Design	2	
		MA2700	Aerospace Materials & Manufacturing Processes	3	
		MA2701	Flight Performance	2	
		MA3003	Heat Transfer	3	
		MA3006	Fluid Mechanics	3	
		MA3072	Engineering Experiments (AE)	1	
		MA3075/ MA3080	Professional Attachment / Professional Internship	5/ 10	
		MA3700	Aircraft Structures I	3	
		MA3701	Aerodynamics	3	
		MA3702	Aircraft Propulsion	3	
		MA3703	Flight Dynamics	2	
		MA3704	Aircraft Electrical Devices	3	
		MA3705	Aerospace Control Theory	3	
		MA4079	Final Year Project	8	
		MA4701	Aircraft Design	3	
	MA4702	Aircraft Structures II	3		
	MA4704	Aeroelasticity	3		
	MA4705	Aircraft Navigation and Flight Computers	3		
	UE	HE1001	Microeconomic Principles	3	24 AUs 12 AUs from compulsory Year 1 and 2 Economics courses. Remaining 12 AUs from 3 rd and 4 th year Economics courses that yield the highest CGPA.
		HE1002	Macroeconomic Principles	3	
HE1005		Intro to Probability & Statistical Inference	3		
HE2005		Principles of Econometrics	3		
		Economics Course 1 Economics Course 2 Economics Course 3 Economics Course 4	3 3 3 4		
Major PE	MA48xx	Aerospace Engineering PE 1	3	6 AUs	
	MA48xx	Aerospace Engineering PE 2	3		
General Education Requirements (GER)	GER-Core	HW0188	Engineering Communication I	2	12 AUs
		HW0288	Engineering Communication II	2	
		ML0001	Absolute Basics for Career	1	
		ML0002	Career Power Up!	1	
		GC0001	Introduction to Sustainability	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Entrepreneurship and Innovation	1	
	MA0101	Engineers and Society	3		
GER-UE	-	GER-UE	5	5 (PA only)	
TOTAL					136 AUs

** Students without 'A' level Physics will read PH1012 Physics A (4 AUs)

Double Degree in Bachelor of Engineering (Mechanical Engineering) and Bachelor of Arts (Economics)

For students admitted to **First Year Engineering from AY2016/2017**

List of courses that contribute towards GPA Computation for BEng (Mechanical Engineering) – Mainstream

List of courses that contribute towards GPA Computation for BEng (Mechanical Engineering) – Mainstream				AU Load	
Discipline Requirement	Core	PH1011	Physics**	3	85 AUs (PA)/ 90 AUs (PI)
		MH1810	Mathematics 1	3	
		MH1811	Mathematics 2	3	
		FE1008	Computing	3	
		FE1073	Introduction to Engineering & Practices	1	
		MA1001	Dynamics	3	
		MA1002	Fundamental Engineering Materials	3	
		MA2001	Mechanics of Materials	3	
		MA2002	Theory of Mechanism	3	
		MA2003	Introduction to Thermo-fluids	3	
		MA2004	Manufacturing Processes	3	
		MA2005	Engineering Graphics	3	
		MA2006	Engineering Mathematics	3	
		MA2007	Thermodynamics	3	
		MA2009	Introduction to Electrical Circuits & Electronic Devices	3	
		MA2071	Laboratory Experiments (ME)	1	
		MA2079	Engineering Innovation and Design	2	
		MA3001	Machine Element Design	3	
		MA3002	Solid Mechanics and Vibration	3	
		MA3003	Heat Transfer	3	
		MA3004	Mathematical Methods in Engineering	3	
		MA3005	Control Theory	3	
		MA3006	Fluid Mechanics	3	
		MA3071	Engineering Experiments (ME)	1	
		MA3075/ MA3080	Professional Attachment / Professional Internship	5/ 10	
		MA4001	Engineering Design	4	
	MA4002	Fluid Dynamics	3		
	MA4079	Final Year Project	8		
	UE	HE1001	Microeconomic Principles	3	24 AUs 12 AUs from compulsory Year 1 and 2 Economics courses. Remaining 12 AUs from 3 rd and 4 th year Economics courses that yield the highest CGPA.
		HE1002	Macroeconomic Principles	3	
		HE1005	Intro to Probability & Statistical Inference	3	
		HE2005	Principles of Econometrics	3	
			Economics Course 1 Economics Course 2 Economics Course 3 Economics Course 4	3 3 3 4	
Major PE	MA48xx	Mechanical Engineering PE 1	3	12 AUs	
	MA48xx	Mechanical Engineering PE 2	3		
	MA48xx	Mechanical Engineering PE 3	3		
	MA48xx	Mechanical Engineering PE 4	3		
General Education Requirements (GER)	GER-Core	HW0188	Engineering Communication I	2	12 AUs
		HW0288	Engineering Communication II	2	
		ML0001	Absolute Basics for Career	1	
		ML0002	Career Power Up!	1	
		GC0001	Introduction to Sustainability	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Entrepreneurship and Innovation	1	
	MA0101	Engineers & Society	3		
GER-UE	-	GER-UE	5	5 (PA only)	
TOTAL				138 AUs	

** Students without 'A' level Physics will read PH1012 Physics A (4 AUs)

Double Degree in Bachelor of Engineering (Mechanical Engineering) and Bachelor of Arts (Economics)

For students admitted to **First Year Engineering from AY2016/2017**

List of courses that contribute towards GPA Computation for BEng (Mechanical Engineering) – Design/Mechatronics Stream

List of courses that contribute towards GPA Computation for BEng (Mechanical Engineering) – Design/Mechatronics Stream				AU Load	
Discipline Requirement	Core	PH1011	Physics**	3	85 AUs (PA)/ 90 AUs (PI)
		MH1810	Mathematics 1	3	
		MH1811	Mathematics 2	3	
		FE1008	Computing	3	
		FE1073	Introduction to Engineering & Practices	1	
		MA1001	Dynamics	3	
		MA1002	Fundamental Engineering Materials	3	
		MA2001	Mechanics of Materials	3	
		MA2002	Theory of Mechanism	3	
		MA2003	Introduction to Thermo-fluids	3	
		MA2004	Manufacturing Processes	3	
		MA2005	Engineering Graphics	3	
		MA2006	Engineering Mathematics	3	
		MA2009	Introduction to Electrical Circuits & Electronic Devices	3	
		MA2011/ MA2013	Mechatronics Systems Interfacing/ Creative Thinking and Design	3	
		MA2012/ MA2014	Introduction to Mechatronics Systems Design/ Product Presentation	3	
		MA2071	Laboratory Experiments (ME)	1	
		MA2079	Engineering Innovation and Design	2	
		MA3001	Machine Element Design	3	
		MA3002	Solid Mechanics and Vibration	3	
		MA3004	Mathematical Methods in Engineering	3	
		MA3005	Control Theory	3	
		MA3006	Fluid Mechanics	3	
	MA3010	Thermodynamics & Heat Transfer	3		
	MA3071	Engineering Experiments (ME)	1		
	MA3075/ MA3080	Professional Attachment / Professional Internship	5/10		
	MA4011/ MA4012	Engineering Product Design (Design Stream)/ Mechatronics Engineering Design (Mechatronics Stream)	4		
	MA4079	Final Year Project	8		
	UE	HE1001	Microeconomic Principles	3	24 AUs 12 AUs from compulsory Year 1 and 2 Economics courses. Remaining 12 AUs from 3 rd and 4 th year Economics courses that yield the highest CGPA.
		HE1002	Macroeconomic Principles	3	
HE1005		Intro to Probability & Statistical Inference	3		
HE2005		Principles of Econometrics	3		
		Economics Course 1 Economics Course 2 Economics Course 3 Economics Course 4	3 3 3 4		
Major PE	MA48xx	Mechanical Engineering Stream PE 1	3	12 AUs	
	MA48xx	Mechanical Engineering Stream PE 2	3		
	MA48xx	Mechanical Engineering Stream PE 3	3		
	MA48xx	Mechanical Engineering Stream PE 4	3		
General Education Requirements (GER)	GER-Core	HW0188	Engineering Communication I	2	12 AUs
		HW0288	Engineering Communication II	2	
		ML0001	Absolute Basics for Career	1	
		ML0002	Career Power Up!	1	
		GC0001	Introduction to Sustainability	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Entrepreneurship and Innovation	1	
	MA0101	Engineers & Society	3		
GER-UE	-	GER-UE	5	5 (PA only)	
TOTAL				138 AUs	

** Students without 'A' level Physics will read PH1012 Physics A (4 AUs)