Double Degree in Bachelor of Engineering (Aerospace Engineering) and Bachelor of Social Science (Economics)

Students admitted from AY2020/2021 *** Students without 'A' level Physics will read PH1012 Physics A (4 AU)*

List of courses that contribute towards GPA Computation for BEng (Aerospace Engineering)					AU Load
Discipline Requirement	**Core**	PH1011	Physics**	3	91 (PA) / 96 (PI)
		MH1810	Mathematics 1	3	
		MH1811	Mathematics 2	3	
		MA1008	Introduction to Computational Thinking	3	
		MA1001	Dynamics	3	
		MA1700	Aerospace Discovery Course	1	
		XXXXXX	Engineering Fundamentals 2	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 AU **12 AU** from compulsory Year 1 and 2 Economics courses. Remaining **12 AU** from 3rd and 4th 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
		MA48xx	Aerospace Engineering PE 2	3	
General Education Requirements (GER)	**GER-Core**	HW0188	Effective Communication	2	14
		HW0288	Engineering Communication	2	
		ML0003	Kickstart your Career Success	1	
		MA0218	Introduction to Data Science and Artificial Intelligence	3	
		GC0001	Sustainability: Seeing Through The Haze	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Enterprise & Innovation	1	
		EG0001	Engineers and Society	3	
	GER-UE	-	GER-UE	5	5 (PA only)
				TOTAL	**140**

Double Degree in Bachelor of Engineering (Mechanical Engineering) and Bachelor of Social Science (Economics)

Students admitted from AY2020/2021 ** *Students without 'A' level Physics will read PH1012 Physics A (4 AU)*

List of courses that contribute towards GPA Computation for BEng (Mechanical Engineering) – Mainstream					**AU Load**
Discipline Requirement	**Core**	PH1011	Physics**	3	85 (PA)/ 90 (PI)
		MH1810	Mathematics 1	3	
		MH1811	Mathematics 2	3	
		MA1008	Introduction to Computational Thinking	3	
		FE1073	Introduction to Engineering & Practices	1	
		MA1001	Dynamics	3	
		XXXXXX	Engineering Fundamentals 2	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	<u>24 AU</u> **12 AU** from compulsory Year 1 and 2 Economics courses. Remaining **12 AU** from 3rd and 4th 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 MA48xx MA48xx MA48xx	Mechanical Engineering PE 1 Mechanical Engineering PE 2 Mechanical Engineering PE 3 Mechanical Engineering PE 4	3 3 3 3	12
General Education Requirements (GER)	**GER-Core**	HW0188	Effective Communication	2	14
		HW0288	Engineering Communication	2	
		ML0003	Kickstart your Career Success	1	
		MA0218	Introduction to Data Science and Artificial Intelligence	3	
		GC0001	Sustainability: Seeing Through The Haze	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Entrepreneurship and Innovation	1	
		EG0001	Engineers and Society	3	
	GER-UE	-	GER-UE	5	5 (PA only)
				TOTAL	**140**

Double Degree in Bachelor of Engineering (Mechanical Engineering) and Bachelor of Social Science (Economics)

Students admitted from AY2020/2021 ** *Students without 'A' level Physics will read PH1012 Physics A (4 AU)*

List of courses that contribute towards GPA Computation for BEng (Mechanical Engineering) – Design/Robotics and Mechatronics Stream				**AU Load**	
Discipline Requirement	**Core**	PH1011	Physics**	3	85 (PA) / 90 (PI)
		MH1810	Mathematics 1	3	
		MH1811	Mathematics 2	3	
		MA1008	Introduction to Computational Thinking	3	
		FE1073	Introduction to Engineering & Practices	1	
		MA1001	Dynamics	3	
		XXXXXX	Engineering Fundamentals 2	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 (Robotics and Mechatronics Stream)	4	
		MA4079	Final Year Project	8	
	UE	HE1001	Microeconomic Principles	3	24 AU **12 AU** from compulsory Year 1 and 2 Economics courses. Remaining **12 AU** from 3rd and 4th 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 MA48xx MA48xx MA48xx	Mechanical Engineering Stream PE 1 Mechanical Engineering Stream PE 2 Mechanical Engineering Stream PE 3 Mechanical Engineering Stream PE 4	3 3 3 3	12
General Education Requirements (GER)	**GER-Core**	HW0188	Effective Communication	2	14
		HW0288	Engineering Communication	2	
		ML0003	Kickstart your Career Success	1	
		MA0218	Introduction to Data Science and Artificial Intelligence	3	
		GC0001	Sustainability: Seeing Through The Haze	1	
		HY0001	Ethics and Moral Reasoning	1	
		ET0001	Entrepreneurship and Innovation	1	
		EG0001	Engineers & Society	3	
	GER-UE	-	GER-UE	5	5 (PA only)
				TOTAL	**140**