Course Code	Course Title	AU	Pre-Requisite	Offering Semester
EG1001	Engineers in Society	2		Sem 1 & 2
EG0001	Engineers and Society	3		Sem 1 & 2
FE1073	Introduction to Engineering & Practices	1		Sem 1
HW0001	English Proficiency	0		Sem 1
HW0288	Engineering Communication	2	HW0188 or CC0001	Sem 1 & 2
MH1810	Mathematics I	3		Sem 1 & 2
MH1811	Mathematics II	3	MH1810 (Co-requisite)	Sem 1 & 2
EG2810	Mathematics A	4		Sem 1
PH1011	Physics	3	Pass 'A' level Physics	Sem 1 & 2
PH1012	Physics A	4	For students w/o A level Physic	Sem 1 & 2
MA0218	Introduction to Data Science and Artificial Intelligence	3	MA1008 (Co-requisite)	Sem 1 & 2
MA1001	Dynamics	3	Having read: MH1810 & PH1011 or MH1810 & PH1012 or EG2810 & PH1012 or CY1601 & CY1308	Sem 1 & 2
MA1008	Introduction to Computational Thinking	3		Sem 1 & 2
MA1601	Introduction to Robotics	2		Sem 1
MA1602	Robotics Programming Fundamentals	3	MA1008	Sem 2
MA1603	Mechatronics System Interfacing & Design	3		Sem 2
MA1700	Aerospace Discovery Course	1		Sem 2
MA1701	Introduction to Aerospace Engineering I	3		Sem 2
MA2001	Mechanics of Materials	3		Sem 1 & 2
MA2002	Theory of Mechanism	3	MA1001	Sem 1 & 2
MA2003	Introduction to Thermo-fluids	3		Sem 1 & 2
MA2024	Engineering Materials and Manufacturing Processes	3		Sem 1 & 2
MA2005	Engineering Graphics	3		Sem 1 & 2
MA2006	Engineering Mathematics	3	MH1810 & MH1811 or CY1203 or MH2812 or CY1602 or MH2810 or EG2810	Sem 1 & 2
MA2007	Thermodynamics	3	MA2003	Sem 1 & 2
MA2009	Introduction to Electrical Circuits & Electronic Devices	3		Sem 1 & 2
MA2011	Mechatronics System Interfacing	3		Sem 1
MA2015	Design Thinking and Methods	3		Sem 1
MA2071	Laboratory Experiments (ME)	1		Sem 1 & 2
MA2072	Laboratory Experiments (AE)	1		Sem 1
MA2079	Engineering Innovation & Design	2		Sem 2
MA2601	Sensing and Sensors	3	MA1602	Sem 1
MA2602	Introduction to Embodied AI: Machine Learning Foundations	3		Sem 2
NA2603	Mechanics and Modelling of Robot Manipulators	3		Sem 2
MA2604	Classical Control Theory for Robotic Applications	3	MA2006	Sem 2
MA2700	Aerospace Materials & Manufacturing Processes	3		Sem 2
MA2701	Flight Performance	2	MA1001 and MA1700	Sem 1
MA3001	Machine Element Design	3	Having read MA2001, MA2002 and MA2005	Sem 1 & 2
MA3002	Solid Mechanics and Vibration	3	MA2001	Sem 1 & 2
MA3003	Heat Transfer	3	MA2007	Sem 1 & 2
MA3004	Mathematical Methods in Engineering	3	MH1810 & MH1811 or CY1203 or MH2812 or CY1602 or MH2810 or EG2810	Sem 1 & 2
MA3005/MA3705	Control Theory/Aerospace Control Theory	3	Having read MA2006	Sem 1 & 2
MA3006	Fluid Mechanics	3	MA2003	Sem 1 & 2
MA3010	Thermodynamics & Heat Transfer	3	MA2003	Sem 1
MA3071	Engineering Experiments (ME)	1		Sem 1 & 2
MA3072	Engineering Experiments (AE)	1		Sem 1
MA3601	Linear Systems and Control	3	MA2604	Sem 1
MA3700	Aircraft Structures I	3	MA2001	Sem 1
MA3701	Aerodynamics	3	MA2003	Sem 1
MA3702	Aircraft Propulsion	3	MA2007	Sem 1
MA3703	Flight Dynamics	2	MA2701 & MA3705	Sem 1
MA3704	Aircraft Electrical Devices	3		Sem 1
MA4001	Engineering Design	4	Having Read MA3001	Sem 1 & 2
MA4002	Fluid Dynamics	3	MA3006	Sem 1 & 2
MA4011	Engineering Product Design	4	Having Read MA3001	Sem 2
MA4012	Mechatronics Engineering Design	4	Having Read MA3001	Sem 1 & 2
MA4013	Manufacturing Engineering Design	4	Having Read MA3001	Sem 2
MA4701	Aircraft Design	3	MA3701 & MA3702 & MA3703	Sem 1
MA4702	Aircraft Structures II	3	MA3700	Sem 1
MA4704	Aeroelasticity	3	MA3700 & MA3701	Sem 1
MA4705	Aircraft Navigation & Flight Computers	3	MH1811/ CY1203/ MH2812/ MH2810/ CY1602/EG2810	Sem 1
MA4804	Optimization Theory and Applications	3	MH1810 & MA2079/ CY1201 & MA2079/ MH2810 & MA2079/ EG2810 & MA2079	Sem 1
MA4807	Marine Structural Integrity	3	MA2001 & MA2079	Sem 2
MA4808	Marine Control Systems	3	MA2079	Sem 2
MA4811	Psychrometry & Air Conditioning	3	MA3003 & MA2079 / MA3010 & MA2079	Sem 1
MA4813	Building Services Engineering	3	MA3003 & MA2079	Sem 2
MA4814	Computational Fluid Dynamics	3	MA3006 & MH1811 & MA2079 or MH2812 & MA2079 or CY1203 & MA2079 or CY1602 & MA2079 or EG2810 & MA2079	Sem 1
MA4819	Energy Technologies for Sustainability	3	MA2079	Sem 2

MA4822	Measurements & Sensing Systems	3	MA2079	Sem 1
MA4825	Robotics	3	MA3001 & MA3005 & MA2079	Sem 1
MA4830	Realtime Software for Mechatronic Systems	3	MA2079	Sem 2
MA4831	Computer-aided Engineering	3	MA2079	Sem 2
MA4832	Microprocessor Systems	3	MA2079	Sem 1
MA4842	Engineering Metrology	3	MA2079	Sem 1
MA4843	Management of Product Development	3	MA2079	Sem 2
MA4845	Additive Manufacturing in Industry 4.0	3	MA2079	Sem 2
MA4846	Sustainable Design	3	MA2079	Sem 2
MA4849	Operations Research	3	MA2079	Sem 1
MA4850	Supply Chain and Logistics Management	3	MA2079	Sem 2
MA4853	Manufacturing Systems	3	MA2004 or MA2024 & MA2079	Sem 2
MA4854	Quality Assurance and Management	3	MA2006 & MA2079	Sem 2
MA4856	Naval Architecture and Marine Engineering	3	MA2079	Sem 1
MA4858	Product Design	3	MA2013 & MA2014 & MA2079	Sem 1
MA4870	Mechanics of Composite Materials	3	MA2001 & MA2079	Sem 2
MA4871	Non-Destructive Testing	3	MA2079	Sem 2
MA4872	Aircraft Reliability & Maintainability	3	MA2006 & MA2079	Sem 2
MA4878	Autonomous Flight	3	MA3701 & MA3703 & MA2079	Sem 2
MA4880	Airport Operations and Systems	3	MA2079	Sem 1
MA4881	Air Traffic Management	3	MA2079	Sem 1
MA4882	Advanced Manufacturing and Materials Processing	3	MA2004 or MA2024 & MA2079	Sem 1
MA4884	Systems Thinking and Systems Engineering	3	MA2079	Sem 1
MA4890	Autonomous Driving	3	MA3005& MA2079 / MA3705 & MA2079	Sem 1
MA4891	AI/ML to Engineering Applications	3	MA3005 & MA0218 & MA2079 or MA3705 & MA0218 & MA2079	Sem 2
MA4892	Engineering Project Management: Principles and Practice	3	MA2079	Sem 2
MA0303	Managing Human Resources in Organizations	3		Sem 2
MA5007	Integrated Design and Practice	3		Sem 1 & 2
MA5008	Campus CEO - Innovation to Business	3	MA1008	Not Offer
MA5030	Bioprinting Principles and Applications	3		Special Term
MA5031	3D Printing and Additive Manufacturing- Principles and Application	3		Special Term
MA5032	Sustainability: Advances in Singapore and Indonesia	3		Special Term

Note: The semester in which a course offered is subject to change.

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