

ME Courses offered in AY2026/2027

ME Major Courses							
Course Code	Course Title	Unit	Semester 1	Semester 2	Pre-requisites	Co-requisites	Preclusions
ME1103	PRINCIPLES OF MECHANICS AND MATERIALS	4	Ong Eng Teo Christina Lim	Ong Eng Teo Christina Lim			ME1102 and ME2112
ME2105	PRINCIPLES OF MECHATRONICS AND	4	Gerard Leng Teo Chee Leong	Gerard Leng Teo Chee Leong			ME2104, ME2143, TME2143, ESP2111
ME2102	ENGINEERING INNOVATION & MODELLING	4	Jason Ku (Lect + Lab) Tan Xipeng (Lect)	Jason Ku (Lect + Lab) Tan Yu Jun (Lect)			
ME2114	Mechanics of Materials	4		Ong Eng Teo Yan Wentao	ME2112		ME1103, ME2114E, ME2116
ME2116	STRENGTH OF MATERIALS	4	Ong Eng Teo Vincent Tan Lab: Gerard Leng	Ong Eng Teo Vincent Tan Lab: Tay Tong Earn	ME1102/ME1103		ME2112, ME2114, TME2114
ME2121	Engineering Thermodynamics and Heat Transfer	4	Daniel Sng Wei Meng (Lect + Lab) Md Raisul Islam (Lect) Yang Wenming (Lab)	Daniel Sng Wei Meng (Lect + Lab) Md Raisul Islam (Lect) Yang Wenming (Lab)	One of PC1431/PC1431X/PC1433 (Cohort AY2018 and before) ME1102 (Cohort AY2019 to AY2024) ME1103 (Cohort AY2025 and onwards)		TME2121
ME2134	Fluid Mechanics I	4	Teo Chiang Juay Shu Chang	Teo Chiang Juay Shu Chang	One of PC1431/PC1431X/PC1433 (Cohort AY2018 and before)		TME2134
ME2162	MANUFACTURING PROCESSES	4	Zhai Wei Sing Swee Leong	Zhai Wei Sing Swee Leong			
ME3115	Mechanics of Machines	4	Ong Eng Teo Shen Lei Lab: Yan Wentao	Ong Eng Teo Shen Lei Lab: Gerard Leng	One of PC1431/PC1431X/PC1433 (Cohort AY2128 and before) ME1102 (Cohort AY2019 to AY2024) ME1103 (Cohort AY2025 and onwards)		ME2115
ME3123	Applied Thermofluids	4	Khoo Boo Cheong (Lect) Daniel Sng Wei Meng (Lect+Lab) Shin Sunmi (Lab)	Khoo Boo Cheong (Lect) Daniel Sng Wei Meng (Lect) Chua Kian Jon Ernest (Lab) Shin Sunmi (Lab)			ME2121 & ME2134 ME2135
ME3142	FEEDBACK CONTROL SYSTEMS	4	Ong Chong Jln Subramaniam V.	Ong Chong Jln Subramaniam V.	MA1512, MA1513/MA1508E		ME2142, TME2142, EE3331C
ME3163	INTRODUCTION TO CYBER PHYSICAL SYSTEMS	4	A Senthil Kumar Prahla V. (ECE) Ho Chaw Sing Biplab Sikdar (ECE)				-
ME4101A	Bachelor Of Engineering Dissertation	8	Danielle Tan (Coord.)	Danielle Tan (Coord.)	Stage 4 standing		CDE4301 / ME4101 / ME4101B

ME Technical Elective Courses							
Course Code	Course Title	Unit	Semester 1	Semester 2	Pre-requisites	Co-requisites	Preclusions
ME2143	SENSORS & ACTUATORS	4	Zhou Guangya Subramaniam V.		ME2104		ME2105 OR TME2143
ME3000	Independent Study I	2	Yang Wenming	Yang Wenming			
ME3001	Independent Study II	2	Yang Wenming	Yang Wenming			
ME3101	Mechanical Systems Design I	4	Jonathan Tay (Teaching Assoc) Wang Hao (T)	Jonathan Tay (Teaching Assoc) Francis Tay (T)	ME2102		
ME3102	Mechanical Systems Design II	4	Jonathan Tay (Teaching Assoc) Wang Hao (T)	Jonathan Tay (Teaching Assoc) Francis Tay (T)	ME3101		
ME3243/EE3305	ROBOTIC SYSTEM DESIGN	4	Zhou Jianshu Shi Fan (ECE)		-		EE3305
ME3252	MATERIALS FOR MECHANICAL ENGINEERING	4	Manoj Gupta Jihyun Baek	James Surjadi Duong Hai Minh	ME1102/ME1103		
ME3261	COMPUTER-AIDED DESIGN AND MANUFACTURING	4	Zhang Yunfeng Francis Tay			ME2162	
ME3263	DESIGN FOR MANUFACTURING AND ASSEMBLY	4	Ong Soh Khim			ME2162/ME3162	
ME3281	Microsystems Design and Applications	4		Zhou Guangya			
ME3291	Numerical Methods in Engineering	4		Danielle Tan Khoo Boo Cheong	MA1505, MA1512 and MA1513		
ME4212	Aircraft Structures	4		Tay Tong Earn			
ME4223	Thermal Environmental Engineering	4	Chua Kian Jon Ernest Md Raisul Islam		ME2121		TME4223
ME4226	Energy Thermal System	4	Daniel Sng Wei Meng Will Liu Chang (0.25) Yang Wenming (0.25)		ME2121		
ME4227	Internal Combustion Engines	4		Yang Wenming Zhang Huangwei			
ME4231	Aerodynamics	4		Chng Tat Loon Zhu Lailai	ME2134/ME2134E		
ME4233	Computational Methods in Fluid Mechanics	4	Danielle Tan Shu Chang		ME2134/ESP2106		
ME4241	Aircraft Performance and Stability	4	Gerard Leng				
ME4242	SOFT ROBOTICS	4	Cecilia Laschi				
ME4245	ROBOT MECHANICS AND CONTROL	4	Marcelo Ang		ME2142/ME3142/EE3331C	ME2142	
ME4252	NANOMATERIALS FOR ENERGY ENGINEERING	4	Palani Balaya		Stage 3 and 4 standing		
ME4253	BIOMATERIALS ENGINEERING	4		Thian Eng San			
ME4255	MATERIALS FAILURE	4		Christina Lim James Surjadi	ME3252 (Cohort AY2018 and before) - (Cohort AY2019 and onwards)		
ME4261	TOOL ENGINEERING	4		A Senthil Kumar		ME2162	

Course Code	Course Title	Unit	Semester 1	Semester 2	Pre-requisites	Co-requisites	Preclusions
ME4201	TOOL ENGINEERING	4		Wang Hao		ME2102	
ME4262	Automation in Manufacturing	4		Zhang Yunfeng		ME2162	
ME4291	Finite Element Analysis I	4	Lim Kian Meng Ong Eng Teo		MA1505 or MA1511 and MA1512		

Special Term 1 Course							
Course Code	Course Title	Unit	Semester 1	Semester 2	Pre-requisites	Co-requisites	Preclusions
ME4263	FUNDAMENTALS OF PRODUCT DEVELOPMENT	4		Francis Tay Lu Wen Feng			