

| MECHANICAL ENGINEERING UNDERGRADUATE COURSES OFFERED IN AY2026/2027 | | | | | Cohort AY2018 and before | Cohort AY2019 to AY2024 | Cohort AY2025 and onwards | | |
|---|--|------|--|--|---|----------------------------------|------------------------------------|---------------|---|
| Course Code | Title | Unit | Semester 1 | Semester 2 | Pre-requisites | | | Co-requisites | Preclusions |
| ME Major Courses | | | | | | | | | |
| ME1103 | PRINCIPLES OF MECHANICS AND MATERIALS | 4 | Dr Ong Eng Teo A/Prof Christina Lim | Dr Ong Eng Teo A/Prof Christina Lim | | | | | ME1102 and ME2112 |
| ME2105 | PRINCIPLES OF MECHATRONICS AND AUTOMATION | 4 | A/Prof Gerard Leng Emeritus Prof Teo Chee Leong | A/Prof Gerard Leng Emeritus Prof Teo Chee Leong | | | | | ME2104, ME2143, TME2143, ESP2111 |
| ME2102 | ENGINEERING INNOVATION & MODELLING | 4 | Dr Jason Ku Asst/Prof Tan Xipeng | Dr Jason Ku A/Prof Tan Yu Jun | | | | | |
| ME2114 | MECHANICS OF MATERIALS | 4 | | Dr Ong Eng Teo A/Prof Yan Wentao | ME2112 | | | | ME1103, ME2114E, ME2116 |
| ME2116 | STRENGTH OF MATERIALS <i>(Newly offered in AY26/27, can be taken as a replacement course for ME2112)</i> | 4 | Dr Ong Eng Teo A/Prof Vincent Tan | Dr Ong Eng Teo A/Prof Vincent Tan | ME1102/ME1103 | | | | ME2112, ME2114, TME2114 |
| ME2121 | ENGINEERING THERMODYNAMICS AND HEAT TRANSFER | 4 | Dr Daniel Sng Wei Meng A/Prof Md Raisul Islam | Dr Daniel Sng Wei Meng A/Prof Md Raisul Islam | One of PC1431/ PC1431X/ PC1433 | ME1102 | ME1103 | | TME2121 |
| ME2134 | FLUID MECHANICS I | 4 | A/Prof Teo Chiang Juay A/Prof Shu Chang | A/Prof Teo Chiang Juay A/Prof Shu Chang | One of PC1431/ PC1431X/ PC1433 | ME1102 | ME1103 | | TME2134 |
| ME2162 | MANUFACTURING PROCESSES | 4 | Asst Prof Zhai Wei Asst Prof Sing Swee Leong | Asst Prof Zhai Wei Asst Prof Sing Swee Leong | | | | | |
| ME3115 | MECHANICS OF MACHINES | 4 | Dr Ong Eng Teo Dr Shen Lei | Dr Ong Eng Teo Dr Shen Lei | One of PC1431/ PC1431X/ PC1433 | ME1102 | ME1103 | | ME2115 |
| ME3123 | APPLIED THERMOFLUIDS <i>(Newly offered in AY26/27, it is offered as ME TE for cohort AY24/25 & before and offered as ME Major for cohort AY25/26 onwards)</i> | 4 | Prof Khoo Boo Cheong Dr Daniel Sng Wei Meng | Prof Khoo Boo Cheong Dr Daniel Sng Wei Meng | ME2121 & ME2134 | | | | ME2135 |
| ME3142 | FEEDBACK CONTROL SYSTEMS | 4 | A/Prof Ong Chong Jin Asst Prof Subramaniam V. | A/Prof Ong Chong Jin Asst Prof Subramaniam V. | MA1512, MA1513/MA1508E | | | | ME2142, TME2142, EE3331C |
| ME3163 | INTRODUCTION TO CYBER PHYSICAL SYSTEMS | 4 | Prof A Senthil Kumar A/Prof Prahlad V. (ECE) Adj Prof Ho Chaw Sing Prof Biplab Sikdar (ECE) | | | | | | |
| ME4101A | BACHELOR OF ENGINEERING DISSERTATION | 8 | Dr Danielle Tan (Coord.) | Dr Danielle Tan (Coord.) | Stage 4 standing | | | | CDE4301/ ME4101/ ME4101B |

| Course Code | Title | Unit | Semester 1 | Semester 2 | Pre-requisites | Co-requisites | Preclusions |
|--------------------------------------|--|------|---|--|-----------------------------|---------------|-------------------|
| ME Technical Elective Courses | | | | | | | |
| ME2143 | SENSORS & ACTUATORS | 4 | A/Prof Zhou Guangya Asst Prof Subramaniam V. | | ME2104 | | ME2105 or TME2143 |
| ME3101 | MECHANICAL SYSTEMS DESIGN I | 4 | Dr Jonathan Tay A/Prof Wang Hao | Dr Jonathan Tay A/Prof Francis Tay | ME2102 | | |
| ME3102 | MECHANICAL SYSTEMS DESIGN II | 4 | Dr Jonathan Tay A/Prof Wang Hao | Dr Jonathan Tay A/Prof Francis Tay | ME3101 | | |
| ME3243/ EE3305 | ROBOTIC SYSTEM DESIGN | 4 | Asst Prof Zhou Jianshu Asst Prof Shi Fan (ECE) | | | | EE3305 |
| ME3252 | MATERIALS FOR MECHANICAL ENGINEERING | 4 | Prof Manoj Gupta Asst Prof Jihyun Baek | Asst Prof James Surjadi A/Prof Duong Hai Minh | ME1102/ME1103 | | |
| ME3261 | COMPUTER-AIDED DESIGN AND MANUFACTURING | 4 | A/Prof Zhang Yunfeng A/Prof Francis Tay | | | ME2162 | |
| ME3263 | DESIGN FOR MANUFACTURING AND ASSEMBLY | 4 | A/Prof Ong Soh Khim | | | ME2162/ME3162 | |
| ME3281 | MICROSYSTEMS DESIGN AND APPLICATIONS | 4 | | A/Prof Zhou Guangya | | | |
| ME3291 | NUMERICAL METHODS IN ENGINEERING | 4 | | Dr Danielle Tan Prof Khoo Boo Cheong | MA1505, MA1512 and MA1513 | | |
| ME4212 | AIRCRAFT STRUCTURES | 4 | | Prof Tay Tong Earn | | | |
| ME4223 | THERMAL ENVIRONMENTAL ENGINEERING | 4 | A/Prof Chua Kian Jon Ernest A/Prof Md Raisul Islam | | ME2121 | | TME4223 |
| ME4226 | ENERGY THERMAL SYSTEM | 4 | Dr Daniel Sng Wei Meng Asst Prof Will Liu Chang A/Prof Yang Wenming | | ME2121 | | |
| ME4227 | INTERNAL COMBUSTION ENGINES | 4 | | A/Prof Yang Wenming A/Prof Zhang Huangwei | | | |
| ME4231 | AERODYNAMICS | 4 | | Asst Prof Chng Tat Loon Asst Prof Zhu Lailai | ME2134/ME2134E | | |
| ME4233 | COMPUTATIONAL METHODS IN FLUID MECHANICS | 4 | Dr Danielle Tan A/Prof Shu Chang | | ME2134/ESP2106 | | |
| ME4241 | AIRCRAFT PERFORMANCE AND STABILITY | 4 | A/Prof Gerard Leng | | | | |
| ME4242 | SOFT ROBOTICS | 4 | Prof Cecilia Laschi | | | | |
| ME4245 | ROBOT MECHANICS AND CONTROL | 4 | Prof Marcelo Ang | | ME2142/ME3142/EE3331C | ME2142 | |
| ME4252 | NANOMATERIALS FOR ENERGY ENGINEERING | 4 | A/Prof Palani Balaya | | Stage 3 and 4 standing | | |
| ME4253 | BIOMATERIALS ENGINEERING | 4 | | A/Prof Thian Eng San | | | |
| ME4255 | MATERIALS FAILURE | 4 | | A/Prof Christina Lim Asst Prof James Surjadi | ME3252 | | |
| ME4261 | TOOL ENGINEERING | 4 | | Prof A Senthil Kumar A/Prof Wang Hao | | ME2162 | |
| ME4262 | AUTOMATION IN MANUFACTURING | 4 | | A/Prof Zhang Yunfeng | | ME2162 | |
| ME4291 | FINITE ELEMENT ANALYSIS L | 4 | A/Prof Lim Kian Meng Dr Ong Eng Teo | | MA1505 or MA1511 and MA1512 | | |
| Special Term 1 Course | | | | | | | |
| ME4263 | FUNDAMENTALS OF PRODUCT DEVELOPMENT | 4 | A/Prof Francis Tay A/Prof Lu Wen Feng | | | | |

Notes:-

ME Technical Electives (TEs) offered in the evening.

You may find the email contact of the course lecturers from the ME website: <https://cde.nus.edu.sg/me/about-us/people/academic-staff/>
or ECE website: <https://cde.nus.edu.sg/ece/about-us/people/academic-staff/>

For non-ME courses, you may refer to NUSMods website for the information: <https://nusmods.com/>