

Mechanical Engineering

September 2018 (students who entered first year in September 2016 or September 2017)

Year 2:

Term A

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|---------------|--|
| AM 2270a | Applied Mathematics for Engineering II |
| MME 2202a | Mechanics of Materials |
| MME 2204a | Thermodynamics I |
| MME 2259a | Product Design and Development |
| MME 2260a | Industrial Materials |
| MME 2200Q | Engineering Shop Safety Training |
| Writing 2130F | Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers |

Term B

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| AM 2276b | Applied Mathematics for Elec. & Mech Eng. III |
| MME 2213b | Engineering Dynamics |
| MME 2273b | Introduction to Fluid Mechanics and Heat Transfer |
| MME 2285b | Engineering Experimentation |
| SS 2143b | Applied Statistics and Data Analysis for Engineers |
| ECE 2274b | Electric Circuits and Electromechanics |

Year 3:

Term A

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| AM 3413a | Applied Mathematics |
| MME 3303a | Fluid Mechanics II |
| MME 3379a | Materials Selection |
| MME 3381a | Kinematics and Dynamics of Machines |
| ECE 3374a | Introduction to Electronics for Mechanical Engineering |

Term B

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| MME 3307b | Heat Transfer II |
| MME 3334b | Thermodynamics II |
| MME 3350b | System Modelling and Control |
| MME 3360b | Finite Element Methods in Mechanical Engineering |
| MME 3380b | Mechanical Components Design |

Year 4:

Term A

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| MME 4499 | Mechanical Engineering Design Project |
| 1.0 non-technical electives taken from the approved list | |
| Two 0.5 technical electives | |

Term B

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| MME 4499 | Mechanical Engineering Design Project |
| ES 4498G | Engineering Ethics, Sustainable Development and the Law |
| 0.5 non-technical elective taken from the approved list | |
| Three 0.5 technical electives | |

NOTES:

Non-technical electives:

Please choose 1.0 credits (one 1.0 credit or two 0.5 credit) courses from the 1000 level and one 0.5 credit from the 2000 (or higher) level.

Technical electives:

Students may elect to substitute technical electives from other engineering disciplines or from the Faculty of Science, provided they have the required prerequisites, and provided at least half of their technical electives are chosen from the above list. A maximum of two 0.5 courses may be taken from the Faculty of Science and used towards the BESC degree. All courses outside of the MME list must be approved by the Department of Mechanical and Materials Engineering.

Technical Elective List:

Some technical electives may not be offered in a given academic year. Consult the department for accurate listing.

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| MME 4410 | Mechanical and Materials Engineering Thesis |
| MME 4423a/b | Internal Combustion Engines |
| MME 4424a/b | Mechanical Properties of Materials |
| MME 4425a/b | Mechanical Vibrations |
| MME 4427a/b | Selected Topics in Mechanical Engineering III |
| MME 4428a/b | Selected Topics in Mechanical Engineering IV |
| MME 4429a/b | Nuclear Engineering |
| MME 4435a/b | Pressure Vessel Design |
| MME 4437a/b | Advanced CAE: Simulation |
| MME 4446a/b | Composite Materials |
| MME 4450a/b | Control Systems: Theory & Practice |
| MME 4452a/b | Robotics and Manufacturing Automation |
| MME 4453a/b | Corrosion and Wear |
| MME 4459a/b | Advanced CAE: Manufacturing Technologies |
| MME 4460a/b | HVAC II |
| MME 4469a/b | Biomechanics of the Musculoskeletal System |
| MME 4470a/b | Medical and Assistive Devices |
| MME 4473a/b | Computer Integrated Manufacturing (CIM) |
| MME 4474a/b | Selected Topics in Mechanical Engineering I |
| MME 4475a/b | Selected Topics in Mechanical Engineering II |
| MME 4480a/b | Advanced CAE: Reverse Engineering |
| MME 4482a/b | Fundamentals of MEMS |
| MME 4483a/b | HVAC I |
| MME 4485a/b | Fluid Machinery |
| MME 4487a/b | Mechatronic System Design |
| MME 4490a/b | Engineering in a Global Context: Advanced Manufacturing <i>*Course with an International Component: see MME office for details.</i> |
| MME 4492a/b | Production Management for Engineers |