

# **Mechanical Engineering**

# September 2020 (for students who entered first year in September 2016 or 2017)

Year 2	
Term A	
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
Writ 2130F	Building Better (Communication) Bridges: Rhetoric &
	Professional Communication for Engineers

Term B

AM 2276B Applied Mathematics for Elec. & Mech. Engineering 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

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

MME 3307B Heat Transfer II
MME 3334B Thermodynamics

MME 3350B System Modelling and Control

MME 3360B Finite Element Methods in Mechanical Engineering

MME 3380B Mechanical Components of Design

Year 4 Term A

MME 4499 Mechanical Engineering Design Project

ES 4498F Engineering Ethics, Sustainable Development & the

Law

One 0.5-credit non-technical elective taken from the approved list

Two 0.5-credit technical electives

Term B

MME 4499 Mechanical Engineering Design Project

Two 0.5-credit non-technical electivs taken from the approved list

Three 0.5-credit 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 course 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 be from the list below. A maximum of two 0.5-credit courses may be taken from the Faculty of Science and used towards the BESc degree. All courses outside the MME technical elective list *must* be approved by the MME Department.

### **Technical Electives**

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

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 I
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 and 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	Advanced CAE: Simulation
MME 4474A/B	Selected Topics in Mechanical Engineering I
MME 4475A/B	Selected Topics in Mechanical Engineering I
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 *Course with an
	International Component: see MME office
	for details
MME 4492A/B	Production Management for Engineers