

# **Mechatronics Engineering and Business (Option B)**

**September 2020** (for students who entered first year in September 2019)

Year 2	
Term A	
AM 2270A	Applied Mathematics for Engineering II
ECE 2205A	Electric Circuits I
MSE 2200Q	Engineering Shop Safety Training
MSE 2201A	Introduction to Electrical Instrumentation
MSE 2212A	Mechanics of Materials
MSE 2214A	Thermodynamics
CS 1037A	Computer Science Fundamentals II
BUS 2257	Accounting & Business Analysis
Term B	
AM 2276B	Applied Math for Electrical & Mechanical Eng. III

Introduction to Mechatronic Design

Accounting & Business Analysis

Introduction to Heat Transfer and Fluid Mechanics

**Engineering Dynamics** Circuits and Systems

Year 3: HBA 1

MSE 2202B

MSE 2213B

MSE 2233B

MSE 2273B BUS 2257

### Year 4

## Term A

AM 3415A Applied Math for Electrical Engineering **Digital Logic Systems ECE 2277A** ECE 3330A **Control Systems** Materials Selection and Manufacturing Processes MSE 3301A **Electric Motors and Drives** MSE 3310A Kinematics and Dynamics of Machines MSE 3381A BUS 4569 Ivey Field Project

Term B

ECE 3331B

Signal Processing ECE 3375B Microprocessors and Microcomputers

MSE 3302B Sensors and Actuators

MSE 3360B Finite Element Methods for Mechanical Engineering MSE 3380B Machine Component Design for Mechatronic Systems

Year 5

Term A

MSE 4401A **Robotic Manipulators** Mechatronic Design Project MSE 4499

SS 2141A Applied Probability and Statistics for Engineers ES 4498F Engineering Ethics, Sustainable Development & the

Law

1.5 HBA required courses\*\*

#### Term B

MSE 4499 Mechatronic Design Project

Two 0.5-credit technical elective

Three 0.5 Business courses at the 4000 level

## **NOTES:**

#### \*\*1.5 HBA required courses:

- International Perspective Requirement: Business 4505A/B.
- Corporations and Society Requirement: 0.5-credit from Business Administration – Corporations and Society offered during the academic year to satisfy this requirement.
- Managerial Accounting Requirement: Business 4624A/B

## **Technical Electives**

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

ECE 4455A/B	Biomedical Systems Analysis
ECE 4460A/B	Real-time and Embedded Systems
ECE 4469A/B	Applied Control Systems

