

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

**September 2025** (for students who entered first year in September 2018 or later)

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|   |
| Applied Mathematics for Engineering II            |
| Electric Circuits I                               |
| Engineering Shop Safety Training                  |
| Introduction to Electrical Instrumentation        |
| Mechanics of Materials                            |
| Thermodynamics                                    |
| Computer Science Fundamentals II                  |
| Accounting & Business Analysis                    |
|   |
|   |
| Applied Math for Electrical & Mechanical Eng. III |
| Introduction to Mechatronic Design                |
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MSE 2213B Engineering Dynamics
MSE 2233B Circuits and Systems

MSE 2273B Introduction to Heat Transfer and Fluid Mechanics

BUS 2257 Accounting & Business Analysis

#### Year 3: HBA 1

## Year 4

### Term A

ECE 2277A Digital Logic Systems
ECE 3330A Control Systems
MSE 3301A Materials Selection and Manufacturing Processes
MSE 3310A Electric Motors and Drives
MSE 3381A Kinematics and Dynamics of Machines
BUS 4569 Ivey Field Project

Term B

MSE 2221b Computational Methods in Mechatronic Systems

Engineering

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
MSE 4499 Mechatronic Design Project

SS 2141A Applied Probability and Statistics for Engineers
ELI 4110F 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        |