

Mechatronics Engineering and Business (Option B)

September 2023 (for students who entered first year in September 2018 or later)

Year 2 Term A **NMM 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 Thermodynamics MSE 2214A

Computer Science Fundamentals II CS 1037A **BUS 2257** Accounting & Business Analysis

Term B

NMM 2276B Applied Math for Electrical & Mechanical Eng. III

MSE 2202B Introduction to Mechatronic Design

MSE 2213B **Engineering Dynamics** Circuits and Systems MSE 2233B

Introduction to Heat Transfer and Fluid Mechanics MSE 2273B

BUS 2257 Accounting & Business Analysis

Year 3: HBA 1

Year 4

Term A

NMM 3415A Applied Math for Electrical Engineering

ECE 2277A Digital Logic Systems 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** MSE 4499 Mechatronic Design Project

SS 2141A Applied Probability and Statistics for Engineers ELI 4110F Engineering Ethics, Sustainable Development & the

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 |

