

## Integrated Engineering and Business Option

**September 2025** (for students who *entered first year* in September 2023 or later)

### Year 2:

#### **Term A**

IE 2298	Integrated System Engineering & Design
NMM 2270a	Applied Mathematics for Engineering II
CEE 2220a	Introduction to Structural Theory
ECE 2277a	Digital Logic Systems
MSE 2214a	Thermodynamics I
Bus 2257	Accounting and Business Analysis

#### **Term B**

IE 2298	Integrated System Engineering & Design
NMM 2276b	Applied Mathematics for Elect. and Mech. Engineering III
CBE 2221b	Fluid Flow
MME 2285b	Engineering Experimentation
SS 2143b	Applied Statistics and Data Analysis for Engineers
Bus 2257	Accounting and Business Analysis

### Year 3: HBA 1

### Year 4:

#### **Term A**

ELI 3000a	Managing the Innovation Process
CBE 2220a	Chemical Process Calculations
CBE 3322a	Heat Transfer Operations
CEE 2202a	Mechanics of Materials
MME 3374a	Electrical Eng. Foundations for Mechanical Engineering
Bus 4569	Ivey Field Project

#### **Term B**

ELI 3100b	Engineering Planning and Project Management*
MSE 2213b	Engineering Dynamics
CBE 2291b	Computational Methods
MSE 3360b	Finite Element Methods for Mechanical Engineering
ELI 4110g	The Ethical Engineer**
Bus 4569	Ivey Field Project

### Year 5:

#### **Term A**

IE 4499	Interdisciplinary Engineering Design Project
ELI 4100a	Engineering Leadership
0.5 technical elective	
1.5 HBA required courses***	

#### **Term B**

IE 4499	Interdisciplinary Engineering Design Project
Two 0.5 technical electives	
1.5 Business electives chosen from 4000 level Business courses.	

### **NOTES:**

**\*ELI 3200 New Venture Creation is an acceptable alternative to ELI 3100.** BA 4558 is an acceptable alternative to ELI 3200 if taken prior to Year 4 as an overload elective, e.g. during intersession.

**\*\*ELI 4110** may be taken in a different semester in order to accommodate desired technical electives and their pre-requisites.

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

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

### **Technical Elective List:**

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

<b>Chemical and Biochemical Engineering :</b>	
CBE 2290a/b	Fundamentals of Biochemical and Environmental Engineering
CBE 3310a/b	Process Dynamics and Control
CBE 3324a/b	Mass Transfer Operations
CBE 4409a/b	Wastewater Treatment
CBE 4421a/b	Introduction to Biomaterials Engineering
<b>Civil and Environmental Engineering:</b>	
CEE 3348a/b	Project Management and Engineering Cases
CEE 3362a/b	Drinking Water Quality and Treatment
CEE 4405a/b	Air Pollution
CEE 4418a/b	Systems Approach for Civil and Environmental Engineering
CEE 4458a/b	Risk Analysis and Decision Making in Engineering
CEE 4465a/b	Environmental Design for Waste Disposal
CEE 4477a/b	Environmental Applications of Nanotechnology
<b>Electrical and Computer Engineering:</b>	
ECE 3349a/b	Introduction of VLSI
ECE 3375a/b	Microprocessors and Microcomputers
ECE 4436a/b	Networking: Principles, Protocols, and Architecture
ECE 4468a/b	Systems Optimization
SE 3314a/b	Computer Networks Applications
<b>Mechanical and Materials Engineering:</b>	
MME 3348a/b	Manufacturing Processes
MME 3379a/b	Materials Selection
MME 3381a/b	Kinematics and Dynamics of Machines
MME 4452a/b	Robotics and Manufacturing Automation
MME 4473a/b	Computer Integrated Manufacturing (CIM)
MME 4487a/b	Mechatronic System Design
MME 4492a/b	Production Management for Engineers