Western Engineering

CIVIL ENGINEERING AND ARTIFICIAL INTELLIGENCE SYSTEMS ENGINEERING, SMART CITIES AND ENVIRONMENTAL ENGINEERING OPTION I

September 2024 (students who entered *first year* in September 2021 or later)

Year 2:
Term A

CEE 2202A	Mechanics of Materials
CEE 2217A	Introduction to Environmental Engineering
CEE 2220A	Introduction to Structural Engineering
SE 2205A	Algorithms & Data Structure for Object-Oriented Design
NMM 2270A	Applied Math for Engineering II
SS 2141A	Applied Probability and Statistics for Engineers

Term B

CEE 2219B	Computation Tools for Civil Engineers
CEE 2221B	Structural Theory and Design
NMM 2276B	Applied Mathematics for Electrical and Mechanical Engineers
SE 2251B	Software Design for Systems Engineering
Writing 2130g	Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers
0.5 non-technical elective	

Year 3:
Term A

CEE 2224	Engineering Fluid Mechanics
CEE 3369A	Materials for Civil Engineering
DS 3000A	Introduction to Machine Learning
ECE 3350A	Cyber-Physical Systems Theory
SE 3309A	Database Management Systems
SE 4430A	Introduction to Computer Networking, Security & IOT Systems

Term B

CEE 2224	Engineering Fluid Mechanics
EarthSci 2281b	Geology for Engineers
ECE 3351B	Digital Systems and Signal Processing
AISE 3010B	Data Engineering and Machine Learning
1.0 non-technical electives	

Year 4:
Term A

CEE 3321A	Soil Mechanics & Hydrogeologic Engineering
CEE 3348A	Project Management & Engineering Cases
CEE 3362A	Drinking Water Quality & Treatment
AISE 4010A	Deep Learning for Time Series Data
CEE 4401A	Introduction to Transportation
EarthSci 3340a	Watershed Hydrology

Term B

CEE 3322B	Introduction to Geotechnical Engineering
CEE 3355B	Municipal Engineering Design
CEE 4412B	Intelligent Transportation Systems
CEE 4476B	Environmental Hydraulics Design
CBE 4409B	Wastewater Treatment
CEE 3386B	Numerical Modeling for Environmental Engineering

NOTES:

Note: CEE 3324a (Surveying). Offered each August (10 days) and must be completed before a student may graduate.
https://www.westerncalendar.uwo.ca/

Important:

Students are responsible for ensuring they have the correct courses required for their degree. If you are unsure which courses you still need or if you see courses listed on the progression sheet that are no longer offered or are not offered in the term you see listed here, please contact your Academic Counsellor.

Non-technical Electives:

http://www.eng.uwo.ca/undergraduate/upper_year/electives.html

Technical Elective List:

Some technical electives may not be offered in a given academic year. Consult the Academic Timetable for a current listing.

CEE 4414A/B	Machine Learning for Water Resources
CEE 4417A/B	Smart Buildings
CEE 4428A/B	Selected Topics in Civil Engineering I
CEE 4429A/B	Selected Topics in Civil Engineering II
CEE 4438A/B	Introduction to Wood Design
CEE 4440	Civil Engineering Thesis (full year course - counts as two technical electives)
CEE 4458A/B	Risk Analysis and Decision Making in Engineering
CEE 4479A/B	Subsurface Contamination
CEE 4480A/B	Wind Engineering
CEE 4485A/B	Cities: Resilience and Sustainability
CBE 4405A/B	Air Pollution Control
CBE 4463A/B	Water Pollution Design

The official version of the academic calendar can be found at: www.westerncalendar.uwo.ca

Year 5:
Term A

AISE 3020A	AI: Ethics, Bias and Privacy
CEE 4420A or AISE 4020A	Data Science in Geotechnical Engineering or Artificial Intelligence Systems Engineering Design I
CEE 4426A	Geotechnical Engineering Design
CEE 4465A	Environmental Design for Waste Disposal
ECE 4450A	Data Driven Control of Cyber-Physical Systems
AISE 4050	Artificial Intelligence Systems Engineering Design II

Term B

CEE 4416A	Digital Water Infrastructures
CEE 4463B	Watershed Modeling
CEE 4478B	Case Studies in Civil Engineering
ELI 4110G	Engineering Ethics, Sustainable Development and the Law
AISE 4050	Artificial Intelligence Systems Engineering Design II
0.5 technical elective taken from approved list	