Fall 2025 – Exam Topics

This is a tentative list of Fall 2025 exam topics. If you intend to register for the Fall 2025 session, but do not see your exam topic(s) listed here, please send an email to exams@egbc.ca by **Friday, March 14, 2025**. Any new requests *after* March 14th, 2025 will be scheduled for Spring/Summer 2026.

If you register for the Fall 2025 session after March 14, 2025, and your exam is not in the following list, we recommend changing your exam registration to another topic in the same session or a deferral to a future session.

NOTE: Geoscience exam topics are developed separately and may not appear in this list. The geoscience exam topics are set after the session's exam registration deadline.

Exam Code	Exam Topics
04-Agric-A2	Soil Physics and Mechanics
04-Agric-A3	Heat Engineering
04-Agric-A4	Fluid Flow
04-Agric-A7	Chemistry and Microbiology of Foods
04-Bio-A3	Cellular and Molecular Biology and Biochemistry
04-BS-1	Mathematics
04-BS-10	Thermodynamics
04-BS-11	Properties of Materials
04-BS-12	Organic Chemistry
04-BS-13	Biology
04-BS-14	Geology
04-BS-15	Engineering Graphics & Design Process
04-BS-16	Discrete Mathematics
04-BS-2	Probability and Statistics
04-BS-3	Statics and Dynamics
04-BS-4	Electric Circuits and Power
04-BS-5	Advanced Mathematics
04-BS-6	Mechanics of Materials
04-BS-7	Mechanics of Fluids
04-BS-8	Digital Logic Circuits
04-BS-9	Basic Electromagnetics
07-Bld-A1	Elementary Structural Analysis
07-Bld-A2	Elementary Structural Design
07-Bld-A3	Construction Engineering
07-Bld-A4	Building Engineering Systems
07-Bld-A5	Building Science
07-Str-A4/16-Civ-B1	Advanced Structural Analysis
07-Str-A6-1/16-Civ-B9/07-Str-B3	The Finite Element Method

Exam Code	Exam Topics
07-Str-A6-3/07-Str-B10	Earthquake Engineering
07-Str-B3/07-Str-A6-1/16-Civ-B9	Applications of the Finite Element Method
07-Str-B5	Foundation Engineering
07-Tra-A1	Introduction to Transportation Engineering
07-Tra-A3	Traffic Engineering
07-Tra-B5	Railway Transportation
07-Tra-B9	Traffic Safety
07-Wrse-A3/18-Env-A3 (EnvA3 different name)	Soil Mechanics & Groundwater
07-Wrse-B3/16-Civ-B5	Water Supply and Wastewater Treatment
08-Mfg-A1/16-Mec-A4	Design & Manufacture of Machine Elements
08-Mfg-A2/17-Ind-B2	Manufacturing Processes
08-Mfg-A6/17-Ind-A5	Quality Planning, Control, and Assurance
08-Mfg-B10	Tooling, Jigs & Fixture Design
08-Mfg-B5/16-Mec-B8	Engineering Materials
08-Mfg-B6	Metrology
08-Nuc-A1	Introduction to Nuclear Physics and Nuclear Engineering
08-Nuc-A3	Nuclear Reactor Design
08-Nuc-A6	Nuclear Power Plant Systems & Operations
08-Nuc-B1	Nuclear Shielding
10-Met-A1	Metallurgical Thermodynamics
10-Met-B1	Mineral Processing
11-CS-1	Engineering Economics
11-CS-2	Engineering in Society - Health and Safety
11-CS-3	Sustainability, Engineering and the Environment
11-CS-4	Engineering Management
12-Mtl-A1	Materials Thermodynamics
12-Mtl-A2	Transport Phenomena in Materials Engineering
12-Mtl-A6	Thermal Treatment of Metals, Glasses, Ceramics
12-Mtl-B15	Joining of Materials
16-Chem-A1	Process Balances and Chemical Thermodynamics
16-Chem-A2	Unit Operations & Separation Processes
16-Chem-A3	Heat and Mass Transfer
16-Chem-A4	Chemical Reactor Engineering
16-Chem-A5	Chemical Plant Design and Economics
16-Chem-A6	Process Dynamics and Control
16-Chem-B1	Transport Phenomena
16-Chem-B10	Life Cycle Assessment
16-Chem-B2	Environmental Engineering
16-Chem-B4/04-Agric-B10	Biochemical Engineering
16-Chem-B5	Pulp and Paper Technology
16-Chem-B6	Petroleum Refining and Petrochemicals

Exam Code	Exam Topics
16-Chem-B8	Polymer Engineering
16-Civ-A1/07-Str-A1	Elementary Structural Analysis
16-Civ-A2/07-Str-A2	Elementary Structural Design
16-Civ-A3	Elementary Environmental Engineering (national only)
16-Civ-A3/07-Wrse-A6	Municipal and Environmental Engineering (PEO only)
16-Civ-A4/07-Str-A3/07-Tra-A6	Geotechnical Materials and Analysis
16-Civ-A5/07-Str-B11	Hydraulic Engineering
16-Civ-A6	Highway Design, Construction, and Maintenance
16-Civ-B10	Traffic Engineering
16-Civ-B11	Structural Materials
16-Civ-B12	Risk & Safety in Civil Engineering
16-Civ-B13	Numerical Methods (Nationals only)
16-Civ-B2/07-Str-A5	Advanced Structural Design
16-Civ-B3/07-Str-B1	Geotechnical Design
16-Civ-B4/07-Wrse-A2	Engineering Hydrology
16-Civ-B6	Urban and Regional Planning
16-Civ-B7	Transportation Planning and Engineering
16-Civ-B8/07-Str-B2	Management of Construction
16-Elec-A1/16-Mex-A2	Circuits
16-Elec-A2/17-Phys-B5	Systems and Control
16-Elec-A3/17-Phy-B4	Signals and Communications
16-Elec-A4/16-Mex-A3/17-Phys-B3	Digital Systems and Computers
16-Elec-A5/16-Mex-A2	Electronics
16-Elec-A6/16-Mex-B10	Power Systems and Machines
16-Elec-A7/17-Phys-A3	Electromagnetics
16-Elec-B1	Digital Signal Processing
16-Elec-B10	Electro-Optical Engineering
16-Elec-B2/16-Mex-B3	Advance Control Systems
16-Elec-B3	Digital Communications systems
16-Elec-B4	Information Technology Networks
16-Elec-B5	Advanced Electronics
16-Elec-B6	Integrated Circuit Engineering
16-Elec-B7	Power Systems Engineering
16-Elec-B8	Power Electronics and Drives
16-Elec-B9	Electromagnetic Field, Transmission
16-Mec-A1/17-Phys-B6/16-Nav-B1/16-Mex-A4	Applied Thermodynamics and Heat Transfer
16-Mec-A2/16-Mex-A5	Kinematics and Dynamics of Machines
16-Mec-A3/16-Mex-A1	System Analysis and Control
16-Mec-A4/08-Mfg-A1	Design and Manufacture of Machine Elements
16-Mec-A5	Electrical and Electronics Engineering

Exam Code	Exam Topics
16-Mec-A6	Advanced Fluid Mechanics (Mec-B6 national)
16-Mec-B1	Advanced Machine Design
16-Mec-B10	Finite Element Analysis
16-Mec-B13	Biomechanics
16-Mec-B2	Environmental Control in Buildings
16-Mec-B3/08-Nuc-B9	Energy Conversion and Power Generation
16-Mec-B4/16-Mex-B9	Integrated Manufacturing Systems
16-Mec-B5/08-Mfg-B4/16-Mex-B8	Product Design and Development
16-Mec-B7	Aero and Space Flight
16-Mec-B8	Engineering Materials
16-Mec-B9	Advanced Engineering Structures
16-Mex-A7	Instrumentation, Measurements, Sensors and Actuators
16-Mex-B5/16-Mec-B12/08-Mfg-B8	Robotics Mechanics
16-Nav-A2	Hydrodynamics of Ships(1): Resistance and Propulsion
16-Nav-B6	Design & Manufacture of Machine Elements
17-Comp-A4	Program Design and Data Structures
17-Comp-B12	Computer Security
17-Comp-B3	Data Bases and File System
17-Ind-A1	Operations Research
17-Ind-A2/08-Mfg-A4	Analysis & Design of Work
17-Ind-A3/08-Mfg-A5	Facilities Planning
17-Ind-A4/08-Mfg-A3	Production Management
17-Ind-A5/08-Mfg-A6	Quality Planning, Control, and Assurance
17-Ind-A6/08-Mfg-B3/16-Mex-A6	System Simulation
17-Ind-B1	Applied Probability and Statistics
17-Ind-B10/08-Mfg-B9	Workplace Health and Safety
17-Ind-B2/08-Mfg-A2	Manufacturing Processes
17-Ind-B3/08-Mfg-B1	Computer Aided Design and Computer-Assisted Manufacturing
17-Ind-B5/04-Bio-B11/08-Mfg-B12	Ergonomics
17-Ind-B6	Workplace Design
17-Pet-A1	Principles of Stratigraphy and Sedimentation
17-Pet-A2	Petroleum Reservoir Fluids
17-Pet-A3	Fundamental Reservoir Engineering
17-Pet-A4	Oil and Gas Well Drilling and Completion
17-Pet-A7	Secondary and Enhanced Recovery
17-Pet-B2	Natural Gas Engineering
17-Pet-B4	Petroleum Geology
17-Phys-A6	Solid State Physics

Exam Code	Exam Topics
17-Phys-B7/10-Met-A4	Structure of Materials
18-Env-A1/07-Wrse-B11	Principles of Environmental
18-Env-A2	Hydrology and Municipal Hydraulics Engineering
18-Env-A3/ 07-Wrse-A3	Geotechnical & Hydrogeological Engineering
18-Env-A4	Water and Wastewater Engineering
18-Env-A5	Air Quality & Pollution Control Engineering
18-Env-B1/07-Wrse-B12	Environmental Assessment & Management Systems
18-Env-B3/07-Wrse-B6	Contaminant Transport
18-Env-B5	Industrial & Hazardous Waste Management
18-Env-B7	Environmental Sampling and Analysis
18-Geol-B1	Contaminant Hydrogeology
18-Geol-B3	Site Investigation
18-Geol-B6-1	Petroleum Deposits
18-Geom-A1	Surveying
18-Geom-A3	Geodsey & Positioning
18-Geom-A5	Remote Sensing and Image Analysis
18-Geom-A6	Cadastral Studies
18-Geom-B1	Digital Terrain Modelling
18-Geom-B5	Survey Law
18-Geom-B6	Land Use, Planning and Environmental Management
18-MMP-A1	General Geology and Exploration
18-Mmp-A5	Surface Mining Methods and Design
18-Mmp-B1	Applied Rock Mechanics
18-Mmp-B2	Rock Fragmentation
18-MMP-B4	Occupational Health, Safety and Loss Management
18-Mmp-B9	Rock Slope Engineering
19-Soft-A1	Algorithms & Data Structures
19-Soft-A4	Real Time Systems
19-Soft-A5	Requirements and Specifications
19-Soft-A6	Software Quality Assurance
19-Soft-A7	Software Development Process
19-Soft-B14	Safety Critical Systems
19-Soft-B15	Artificial Intelligence
19-Soft-B6	Software Project Management
98-Mar-A2 /16-Nav-A1	Fundamentals of Naval Architecture
98-Mar-A5/16-Mec-A7	Advanced Strength of Materials
98-Mar-A7/16-Nav-B2	Marine Engineering
98-Mar-B5/16-Mec-B6/08-Mfg-B11	Fluid Machinery (Mec-A6 national)