## Exams for Fall/Winter- October - December 2024

## Registration Deadline is August 2, 2024.

Technical exams for the Fall/Winter 2024 (scheduled October-December 2024) sitting will be written remotely by computer. If you are planning to write at the Fall/Winter 2024 sitting, please be prepared to write as early as October 1, 2024. Exact dates should be made available one to two months prior to the start of the exam sitting.

Important information and updates about the online technical exams will be posted on Engineers and Geoscientists BC's Status of Online Academic Examinations page.

If the exam(s) you are planning to write at the Fall/Winter 2024 sitting are not listed below, send an email to <a href="mailto:questions-academicreview@apeqs.ca">questions-academicreview@apeqs.ca</a> by July 20, 2024 to ensure that the exam(s) will be made available for the Spring/Summer 2025 sitting.

IMPORTANT UPDATE: APEGS has a 3 strikes rule for exams. You are only permitted to fail any combination of exams 3 times (the same exam 3 times, 3 different exams, the FE once and 2 technical exams etc.) and then your application will be denied.

Last updated April 25, 2024

**04-BS-1**, 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

**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

**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

**04-Agric-A1**, Applied Plant, Animal or Human Physiology

04-Agric-A4, Fluid Flow

**04-Agric-A5**, Principles of Instrumentation

**04-Agric-A7**, Chemistry and Microbiology of Foods

**04-Agric-B6/07-Wrse-A7-1**, Irrigation, Drainage and Erosion Control

04-Agric-B10/16-Chem-B4, Biochemical Engineering

**04-Bio-A2**, Process Dynamics and Control

**04-Bio-A3**, Cellular and Molecular Biology and Biochemistry

04-Bio-A4/16-Mec-B13, Biomechanics

**04-Bio-A7**, Fluid Mechanics

04-Bio-B4, Digital Image Processing

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-Bld-A6, Geotechnical Materials and Analysis
- **07-Bld-A7**, Building Envelope Design
- **07-Bld-B1**, Computer Programming
- **07-Bld-B4**, Modern Building Materials
- 07-Bld-B5, Fire and Smoke Control in Buildings
- **07-Bld-B6**, Building Energy Conservation Technologies
- **07-Bld-B7**, Indoor Air Quality
- **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-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
- **16-Chem-B8**, Polymer Engineering
- **16-Chem-B10**, Life Cycle Assessment

- 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-B1/07-Str-A4, Advanced Structural Analysis
- 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-B5/07-Wrse-B3, Water Supply and Wastewater Treatment
- **16-Civ-B6**, Urban and Regional Planning
- **16-Civ-B7**, Transportation Planning and Engineering
- **16-Civ-B8/07-Str-B2**, Management of Construction
- 16-Civ-B9/07-Str-A6-1, The Finite Element Method
- 16-Civ-B10, Traffic Engineering
- **16-Civ-B11**, Structural Materials
- 16-Civ-B12, Risk & Safety in Civil Engineering
- 17-Comp-A1, Electronics
- 17-Comp-A2, Digital Systems Design
- **17-Comp-A5**, Operating Systems
- **17-Comp-A6**, Software Engineering
- **17-Comp-B5**, Computer Communications

- 16-Elec-A1/16-Mex-A2, Circuits
- 16-Elec-A2/17-Phys-B5, Systems and Control
- 16-Elec-A3/17-Phy-A3, 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**, Electromagnetics
- 16-Elec-B1, Digital Signal Processing
- **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-Elec-B10**, Electro-Optical Engineering
- 18-Env-A1/07-Wrse-B11, Principles of Environmental Engineering
- 18-Env-A2, Hydrology and Municipal Hydraulics Engineering
- **18-Env-A3/07-Wrse-A3**, Geotechnical & Hydrogeological Engineering
- 18-Env-A5, Air Quality and Pollution Control Engineering
- 18-Env-A4, Water and Wastewater Engineering
- **18-Env-A6,** Solid Waste Engineering and Management
- 18-Env-B1, Environmental Assessment and Management Systems

- 18-Env-B2, Water Resources
- 18-Env-B4, Site Assessment and Remediation
- **18-Env-B5**, Industrial and Hazardous Waste Management
- 18-Env-B7, Environmental Sampling and Analysis

- **18-Geol-A1**, Mineralogy and Petrology
- **18-Geol-A2**, Hydrogeology
- **18-Geol-A3**, Sedimentation and Stratigraphy
- **18-Geol-A4**, Structural Geology
- **18-Geol-A5**, Rock Mechanics
- **18-Geol-A6**, Soil Mechanics
- **18-Geol-B1**, Contaminant Hydrogeology
- **18-Geol-B3**, Site Investigation
- **18-Geol-B4**, Geomorphology and Pleistocene Geology
- **18-Geol-B10-1**, Gravity & Magnetic Fields
- 18-Geom-A1, Surveying
- 18-Geom-A3, Geodsey & Positioning
- **18-Geom-A4**, Photogrammetry
- **18-Geom-A5**, Remote Sensing and Image Analysis
- 18-Geom-A6, Cadastral Studies

18-Geom-B1, Digital Terrain Modelling

18-Geom-B3, Networks and Precise Engineering Surveys

18-Geom-B5, Survey Law

**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-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-Ind-B10/08-Mfg-B9, Workplace Health and Safety

98-Mar-A2/16-Nav-A1, Fundamentals of Naval Architecture

98-Mar-A5/16-Mec-A7, Advanced Strength of Materials

**98-Mar-B5/16-Mec-B6/08-Mfg-B11**, Fluid Machinery (Mec-A6 national)

**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
- **16-Mec-A6**, Advanced Fluid Mechanics (Mec-B6 national)
- **16-Mec-A7/98-Mar-A5**, Advanced Strength of Materials
- **16-Mec-B1**, Advanced Machine Design
- 16-Mec-B2, Environmental Control in Buildings
- **16-Mec-B3**, Energy Conversion and Power Generation
- **16-Mec-B4**, Integrated Manufacturing Systems
- 16-Mec-B5/08-Mfg-B4/16-Mex-B8, Product Design and Development
- 16-Mec-B6/98-Mar-B5/08-Mfg-B11, Fluid Machinery (Mec-A6 national)
- 16-Mec-B7, Aero and Space Flight
- 16-Mec-B8, Engineering Materials
- **16-Mec-B9,** Advanced Engineering Structures
- **16-Mec-B10**, Finite Element Analysis
- 16-Mec-B12/08-Mfg-B8/16-Mex-B5, Robotics Mechanics
- **16-Mec-B13**, Biomechanics
- **10-Met-A1**, Metallurgical Thermodynamics
- **10-Met-A2**, Metallurgical Rate Phenomena
- 10-Met-A3, Metal Extraction Processes
- 10-Met-A4/17-Phys-B7, Structure of Materials
- 10-Met-A6, Phase Transformation and Thermal Treatment of Metals and Alloys
- 10-Met-B1, Mineral Processing
- **10-Met-B6**, Physical Metallurgy of Iron and Steel
- **10-Met-B7**, Phys. Metallurgy of Non-Ferrous Metals & Alloys
- 10-Met-B10/12-Mtl-B10, Advanced Electronic Materials

- **16-Mex-A1/16-Mec-A3**, System Analysis and Control
- 16-Mex-A2/16-Elec-A1, Circuits
- 16-Mex-A2/16-Elec-A5, Electronics
- **16-Mex-A3/16-Elec-A4/17-Phys-B3**, Digital Systems and Computers
- **16-Mex-A4/16-Mec-A1/17-Phys-B6/16-Nav-B1**, Applied Thermodynamics and Heat Transfer
- 16-Mex-A5/16-Mec-A2, Kinematics and Dynamics of Machines
- 16-Mex-A6/08-Mfg-B3/17-Ind-A6, System Simulation
- **16-Mex-B3/16-Elec-B2**, Advance Control Systems
- 16-Mex-B5/16-Mec-B12/08-Mfg-B8, Robotics Mechanics
- 16-Mex-B8/16-Mec-B5/08-Mfg-B4, Product Design and Development
- **16-Mex-B10/16-Elec-A6**, Power Systems and Machines

- **08-Mfg-A1/16-Mec-A4**, Design & Manufacture of Machine Elements
- **08-Mfg-A2/17-Ind-B2**, Manufacturing Processes
- 08-Mfg-A3/17-Ind-A4, Production Management
- 08-Mfg-A4/17-Ind-A2, Analysis & Design of Work
- 08-Mfg-A5/17-Ind-A3, Facilities Planning
- 08-Mfg-A6/17-Ind-A5, Quality Planning, Control, and Assurance
- 08-Mfg-B1/17-Ind-B3, Computer Aided Design and Computer-Assisted Manufacturing
- 08-Mfg-B3/16-Mex-A6/17-Ind-A6, System Simulation
- 08-Mfg-B4/16-Mec-B5/16-Mex-B8, Product Design and Development
- **08-Mfg-B5/16-Mec-B8**, Engineering Materials

- **08-Mfg-B6**, Metrology
- 08-Mfg-B8/16-Mec-B12/16-Mex-B5, Robotics Mechanics
- **08-Mfg-B9/17-Ind-B10**, Workplace Health and Safety
- **08-Mfg-B10**, Tooling, Jigs & Fixture Design
- **08-Mfg-B11/16-Mec-B6/98-Mar-B5**, Fluid Machinery (Mec-A6 national)
- **18-MMP-A1**, General Geology and Exploration
- 18-MMP-A2, Underground Mining Methods and Design
- 18-MMP-A3, Mineral Processing
- **18-MMP-A5**, Surface Mining Methods and Design
- **18-MMP-A6**, Mining and the Environment
- 18-MMP-B1, Applied Rock Mechanics
- 18-MMP-B2, Rock Fragmentation
- **18-MMP-B3**, Material Handling
- 18-MMP-B4, Occupational Health, Safety and Loss Management
- 18-MMP-B9, Rock Slope Engineering
- **12-Mtl-A1**, Materials Thermodynamics
- 12-Mtl-A2, Transport Phenomena in Materials Engineering
- 12-Mtl-A3, Structure and characterization of material
- 12-Mtl-A4/10-Met-A5, Mechanical Behaviour and Fracture of Materials
- 12-Mtl-A5, Phase Transformations of Metals, Glasses, and Ceramics
- **12-Mtl-A6**, Thermal Treatment of Metals, Glasses, Ceramics
- **12-Mtl-B6/10-Met-B6**, Physical Metallurgy of Iron and Steel

- 12-Mtl-B10/10-Met-B10, Advanced Electronic Materials
- **12-Mtl-B15**, Joining of Material
- 16-Nav-A1/98-Mar-A2, Fundamentals of Naval Architecture
- **16-Nav-A3**, Hydrodynamics of Ships: Ship Motion Exam
- 16-Nav-A4, Ship Structure and Strength of Ships
- **16-Nav-A5**, Ship Design
- **16-Nav-B1/16-Mec-A1/17-Phys-B6/16-Mex-A4**, Applied Thermodynamics and Heat Transfer
- 16-Nav-B3, Small Commercial Ships
- **08-Nuc-A1**, Introduction to Nuclear Physics and Nuclear Engineering
- 17-Pet-A2, Petroleum Reservoir Fluids
- 17-Pet-A3, Fundamental Reservoir Engineering
- **17-Pet-A4**, Oil and Gas Well Drilling and Completion
- 17-Pet-A6, Reservoir Mechanics
- 17-Pet-A7, Secondary and Enhanced Recovery
- 17-Pet-B3, Oil and Gas Evaluation and Economics
- **17-Pet-B4**, Petroleum Geology
- 17-Pet-B5, Well Testing
- 17-Phys-A1, Classical Mechanics
- 17-Phys-A2, Statistical Physics
- 17-Phy-A3/16-Elec-A3, Signals and Communications
- 17-Phys-A4, Quantum Mechanics
- **17-Phys-A5-A**, Electronic Materials and Devices

- 17-Phys-B1, Radiation Physics
- 17-Phys-B3/16-Elec-A4/16-Mex-A3, Digital Systems and Computers
- 17-Phys-B5/16-Elec-A2, Systems and Control
- **17-Phys-B6/16-Mec-A1/16-Nav-B1/16-Mex-A4**, Applied Thermodynamics and Heat Transfer
- 17-Phys-B7/98-Met-A4, Structure of Materials

- 19-Soft-A1, Algorithims & 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-B4, Dependable System
- **19-Soft-B13**, Performance Analysis & Simulation
- **07-Str-A1/16-Civ-A1**, Elementary Structural Analysis
- 07-Str-A2/16-Civ-A2, Elementary Structural Design
- 07-Str-A3/07-Tra-A6/16-Civ-A4, Geotechnical Materials and Analysis
- 07-Str-A4/16-Civ-B1, Advanced Structural Analysis
- **07-Str-A5/16-Civ-B2**, Advanced Structural Design
- 07-Str-A6-1/16-Civ-B9/07-Str-B3, The Finite Element Method
- 07-Str-A6-3/07-Str-B10, Earthquake Engineering
- 07-Str-B1/16-Civ-B3, Geotechnical Design

07-Str-B2/16-Civ-B8, Management of Construction

07-Str-B3/07-Str-A6-1/16-Civ-B9, Applications of the Finite Element Method

**07-Str-B5**, Foundation Engineering

07-Str-B11/16-Civ-A5, Hydraulic Engineering

07-Tra-A1, Introduction to Transportation Engineering

**07-Tra-A2**, Highway Design

07-TRA-A3, Traffic Engineering

07-Tra-A4, Pavement Materials, Design and Management

07-Tra-A6/07-Str-A3/16-Civ-A4, Geotechnical Materials and Analysis

07-Tra-B1, Transit System

**07-Tra-B6**, Highway Construction

**07-Tra-B9,** Traffic Safety

**07-Wrse-A2/16-Civ-B4**, Engineering Hydrology

07-Wrse-A3/18-Env-A3, Soil Mechanics & Groundwater

**07-Wrse-A6** /**16-Civ-A3**, Municipal and Environmental Engineering (PEO only)

**07-Wrse-A7-1/04-Agric-B6**, **Irrigation**, Drainage and Erosion Control

**07-Wrse-B3/16-Civ-B5**, Water Supply and Wastewater Treatment

07-Wrse-B11/18-Env-A1, Principles of Environmental Engineering