

Graduate Courses - Projected Course List for 2025/26 Academic Year

Revised 2025/09/05

		Fall 2025	Winter 2026	Spring 2026	
Graduate Courses (Typically 3 needed for PhD, 4 for MASC, and at least 4 of the 8 courses required for MENG) [See Note 2]	Geotechnical	CIVL820 Engineering Design & Professional Practice (Van Gulck)	CIVL842 Foundation Engineering (Brachman)	CIVL822 Structural Design of Buried Pipes (Moore) & CIVL823 Pipe Repair Using Liners (Moore)	
		<b>CIVL840 Advanced Soil Mechanics (Take)</b>	CIVL843 Landslides (Take)		
		CIVL847 Geosynthetics in Geotechnical Engineering (Abdelaal)	<b>CIVL 848 Sustainable Barrier System Design (Brachman)</b>		
		CIVL846 Human Factors and GeoEngineering Projects (Rowe)	RMC CE533 Frozen Ground Engineering (Beddoe) [Note 4]		
		<b>RMC CE534 Applied Permafrost Engineering (Beddoe) [Note 4]</b>	RMC CE513 Laboratory Testing of Geomaterials (Siemens) [Note 4]		
		RMC CE521: Instrumentation & Monitoring (Vlachopoulos) [Note 4]	RMC CE599 Introduction to Unsaturated Soils (Siemens) [Note 4]		
		<b>RMC CE530 Advanced Numerical Models for Engineering (Yaser) [Note 4]</b>			
	Structural	<b>CIVL831 Assessment and Monitoring of Infrastructure (Hoult)</b>	<b>CIVL832 Finite Element Analysis (Genikomsou)</b>		
		CIVL832 Finite Element Analysis (Genikomsou)	<b>CIVL837/436 Prestressed Concrete (Fam) [Note 1]</b>		
		CIVL834 Advanced Reinforced Concrete (Genikomsou)	CIVL838 Design of Concrete Structures with FRP (Green)		
		CIVL835 Advanced Infrastructure Materials (Hoult)	CIVL839 Approximate Structural Analysis (MacDougall)		
		<b>CIVL892 Structural Dynamics (Woods)</b>	RMC CE505: Assessment, Strengthening and Repair of Concrete Structures (Wight) [Note 4]		
			RMC ME547 Advanced Finite Element Analysis (Wovk) [Note 4]		
	Hydrotechnical	CIVL850 Advanced Fluid Mechanics (da Silva)	<b>CIVL857/455 River Engineering (da Silva) [Note 1]</b>		
		CIVL851 Introduction to Hydrodynamic Modelling (Olsthoorn)	<b>CIVL852 Environmental Fluid Dynamics (Boegman)</b>		
		CIVL853 Water Waves (Mulligan)			
		<b>CIVL855 Hydrodynamics of Coasts and Estuaries (Mulligan)</b>			
		CIVL856 River Morphodynamics (da Silva)			
	Environmental	CIVL880/471 Subsurface Contamination (Mumford) [Note 1]	CIVL879 Groundwater Resources in Cold Regions (Wright)	CIVL884 Field methods in the Hydrogeology of Fractured Rock (Novakowski)	
		<b>CIVL849 Polymer Microstructure &amp; Testing Civil Engineering (Abdelaal) 1/2 credit</b>	CIVL881 Flow and Transport in Fractured Rock (Novakowski)		
		CIVL883 Gasses in Groundwater (Mumford)	<b>CIVL890 Water Network Analysis/Design (Fillon)</b>		
		<b>CIVL886 Advanced Water Treatment (Xin)</b>	<b>CIVL891 Water Quality and Discouration in Drinking Water Distribution Systems (Fillon)</b>		
		CIVL888 Theory of Groundwater Flow and Transport (Mumford)	CIVL893 Statistics for Environmental Applications (Payne)		
		<b>CIVL896 Engineering Sustainability and Reconciliation (Devoie &amp; Green)</b>	CIVL894 Drinking Water Management (Payne)		
	Additional Course Options for MENG students	APSC		<b>APSC 888 Engineering Innovation and Enterprise</b> <b>APSC 896 Engineering Leadership</b>	<b>APSC 812 AI Ethics and Society</b> <b>APSC 877 Engineering Management</b>
		Project			<b>CIVL898 MENG Project [Note 3]</b>
		400 series [Note 1]	<b>CIVL442 Geotechnical Design</b>	<b>CIVL431 Infrastructure Rehabilitation</b>	
<b>CIVL430 Reinforced Concrete Design</b>			<b>CIVL472 Water Treatment</b>		
<b>CIVL451 Lake, Reservoir and Coastal</b>			CIVL473 Water Resources Systems		
<b>CIVL450 Municipal Hydraulics</b>	<b>CIVL491 Earth Sys. Process under Climate Change</b>				

Note 1: MASC and PhD Students can not take a 400 series course, but can take one double numbered (400/800) course

MENG Students can take a maximum of two 400 series courses or double numbered courses or combination thereof

Note 2: CIVL MENG Students must take at least 4 full graduate courses courses with a CIVL prefix as part of their 8 courses

Note 3: Enrollment in CIVL898 requires a faculty member willing to offer and supervise a MENG project (can be any term, but typically spring)

Note 4: Enrollment in Graduate Courses at the Royal Military College (RMC) require permission of the College and instructor (see Debbie for form)