

National Standard Course Category	MRU Program Course (Undergraduate Courses 2022/23)	Knowledge Requirement for a Practice Area				
		Assessment, Remediation, and Management of Contaminated Land	Environmental Monitoring	Land Reclamation	Water Resources Planning and Management	Land Conservation and Management
<i>(credits required)</i>	2022/2023 Program Requirements for B.Sc in Environmental Science (Courses in bold type meet the knowledge requirement for that subject in a Practice Standard; Courses in <i>italics</i> are elective courses)					
Foundational Natural Sciences <i>(15 credits required)</i>	CHEM 1202 - General Chemistry - Introduction to Quantitative Chemistry OR CHEM 1207 - General Chemistry for the Environmental Sciences	√	√		√	
	CHEM 2157 - Industrial Organic Chemistry	√				
	GEOL 1101 - The Dynamic Earth					
	<i>Elective - Foundational Natural Science course required</i>					
	<i>Elective - Foundational Natural Science course required</i>					
Senior Agrology <i>(24 credits required)</i>	ENVS 3305 - Soil Hydrology			√	√	√
	ENVS 3307 - Air Pollution Monitoring					
	ENVS 3323 - Watershed Management	√	√	√	√	√
	ENVS 3333 - Ground Water Contamination	√				
	ENVS 3335 - Issues in Environmental Assessment					
	ENVS 4201 - Environmental Science Research Methods and Projects				√	
	ENVS 4405 - Air Quality		√			
	ENVS 4406 - Soil Genesis and Land Use	√	√	√		√
	ENVS 4419 - Regulatory Management	√				
	ENVS 4431 - Waste Management					
	ENVS 4441 - Site System Remediation Design	√				
	MGMT 3269 - Project Management					
Introductory Agrology <i>Intro Agrology + Senior Agrology = 60 credits required)</i>	ECOL 2201 - Plant Survey and Classification	√	√	√		√
	ECOL 1111 - Terrestrial Ecology	√	√	√	√	√
	ECOL 2219 - Aquatic Ecology					
	ENVS 1111 - Professional Development, Health and Safety					
	ENVS 2100 - Introduction to Environmental Science					
	ENVS 2203 - Introduction to Soil Science	√	√	√	√	√
	ENVS 2215 - Applied Instrumentation					
	ENVS 2221 - Water Pollution and Surface Water Analysis		√		√	
Economics <i>(3 credits required)</i>	One of the following: ECON 1101 - Introduction to Microeconomics ECON 1103 - Introduction to Macroeconomics					√
Mathematics or Statistics <i>(3 credits required)</i>	One of the following: MATH 1185 - Calculus with Applications OR MATH 1200 - Calculus for Scientists I MATH 1203 - Linear Algebra for Scientists and Engineers ENVS 1105 - Data Processing and Statistics	√	√		√	
Communications <i>(3 credits required)</i>	One of the following: GNED 1101 - Scientific and Mathematical Literacy for the Modern World GNED 1401 = Writing for Academic Success GNED 1403 - Writing in a Digital Context: Language, Media, Culture GNED 1404 - Writing about Images					
		The Following Subjects Are Not Listed in the B.Sc Environmental Science Program Requirements But Are <u>Also Required</u> to Qualify for the P.Ag in the Following Practice Areas (Each subject must be 3-credit equivalent course)				

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		Assessment, Remediation, and Management of Contaminated Land	Environmental Monitoring	Land Reclamation	Water Resources Planning and Management	Land Conservation and Management
		Soil Chemistry	Sampling Methods and Design	Introductory Plant Science	Land Use Effects On Water	Introductory Animal Science OR Zoology
		Contaminant Behaviour	Soil Conservation and Management		One of the following:	Introductory Plant Science
		Ecological and Human Health Risk Assessment	Introductory Plant Science		<i>Natural Resource Economics</i>	One of the following:
		Toxicology			<i>Environmental Economics</i>	<i>Ecophysiology</i>
		Environmental Sampling Design			<i>Agricultural Economics</i>	<i>Plant Ecology</i>
		Introductory Plant Science			Experimental Design	<i>Disturbance Ecology</i>
		Plant Nutrition			One of the following:	<i>Restoration Ecology</i>
		Plant Physiology			<i>Terrain and Landform Analysis</i>	<i>Riparian Ecosystems</i>
		Animal Nutrition			<i>Geographic Information Systems</i>	<i>Fire Ecology and Mgmt</i>
		Animal Physiology				<i>Landscape Ecology</i>
						<i>Forest Ecology</i>
						<i>Wildlife Ecology</i>
						<i>Rangeland Ecology</i>