Alberta Institute of Agrologists

Last Reviewed by MRU: _____

Mount Royal University

Approved Undergraduate Course List for Registration with the Agrology Profession in Alberta, 2022/23

This list is intended for use by students **presently enrolled** in the Mount Royal University (MRU) degree program. This list is not exhaustive and is based ONLY on the current course offerings at MRU for the current academic year. It does not include courses from past academic years which might still be recognized for registration.

To be eligible to be registered as an Agrologist in Training (AIT) leading to the Professional Agrologist (PAg) designation, applicants must have obtained a 4-year 120-credit baccalaureate degree in agriculture or environmental science from a post-secondary institution recognized by AIA Council. This degree must meet the following course requirements:

1. **Total Agrology (introductory + senior agrology) coursework must be a minimum of 60 credits with a minimum of 24 of these credits at a senior level (usually a third- or fourth-year course).**
2. **Foundational natural science coursework must be a minimum of 15 credits. Courses must be foundational to the Agrology profession and provide the scientific foundation upon which Agrology courses are built.**
3. **Mathematics OR calculus OR statistics coursework must be a minimum of 3 credits.**
4. **English OR communications coursework must be a minimum of 3 credits.**
5. **Economics coursework must be a minimum of 3 credits.**

Mount Royal University Courses that are considered eligible for meeting the above coursework requirements are listed below in the following categories: Introductory Agrology, Senior Agrology, Foundational Natural Sciences, Mathematics, Calculus or Statistics, English or Communications, Economics.

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Introductory Agrology Courses

Introductory + Senior Agrology coursework must total a minimum of 60 credits

**** Courses marked with an asterisk require submission of additional documentation and approval by the Registrar of AIA.***

Course ID	Title
BIOL 2309	Plants and People
CHEM 2221	Food Chemistry
ECOL 1111	Terrestrial Ecology

ECOL 2201	Plant Survey and Classification
ECOL 2219	Aquatic Ecology
ENVS 1111	Professional Development, Health, and Safety
ENVS 1199*	Directed Readings
ENVS 1299*	Directed Readings
ENVS 2100	Introduction to Environmental Science
ENVS 2201	Introduction to Industrial Ecology
ENVS 2203	Introduction to Soil Science
ENVS 2215	Applied Instrumentation
ENVS 2221	Water Pollution and Surface Water Analysis
GEOG 1105	Introduction to Mapping, GIS, and Remote Sensing
GEOG 2107	Weather and Climate
GEOG 2109	Ecological Land Classification and Soils
GEOG 2111	The Earth's Changing Surface
GEOG 2437	Biogeography
GEOG 2445	Environmental Problems and Resource Management
GEOG 2553	Geographic Information Systems
GEOG 2555	Introduction to Remote Sensing
MIBI 1217	Environmental Microbiology

Senior Agrology Courses

(Minimum of 24 credits from the list)

**** Courses marked with an asterisk require submission of additional documentation and approval by the Registrar of AIA.***

Course ID	**Title**
BIOL 3101	Molecular Genetics
BIOL 3103	Introduction to Biophysics
BIOL 3105	Microbiology II
BIOL 3106	Evolutionary Biology
BIOL 3108	Conservation Biology
BIOL 3299*	Directed Readings
BIOL 3301	Animal Behavior
BIOL 4310	Molecular Ecology
BIOL 4320	Field Biology Research Techniques
BIOL 4401	Population and Conservation Genetics
BIOL 5201*	Independent Projects I
BIOL 5202*	Independent Projects II
ENVS 3303	Lifecycle Assessment
ENVS 3305	Soil Hydrology
ENVS 3307	Air Pollution Monitoring
ENVS 3323	Watershed Management

ENVS 3333	Groundwater Contamination
ENVS 3335	Issues in Environmental Assessment
ENVS 3336	Indigenous and Stakeholder Consultation in Environmental Management
ENVS 4201	Environmental Science Research Methods and Projects
ENVS 4405	Air Quality
ENVS 4406	Soil Genesis and Land Use
ENVS 4407	Pollution Prevention: Towards Zero Emissions
ENVS 4417	Design for the Environment
ENVS 4419	Regulatory Management
ENVS 4421	Environmental Resource Management
ENVS 4431	Waste Management
ENVS 4433	Quality Assurance/Quality Control
ENVS 4441	Site System Remediation Design
GEOG 3107	Conservation Biogeography
GEOG 3199*	Directed Readings
GEOG 3445	Global Environmental Issues
GEOG 3553	Spatial Analysis and GIS
GEOG 4199*	Directed Readings
GEOL 3107	Geomorphology
GEOL 3113	Geochemistry
GEOL 4105	Hydrogeology
GEOL 4113*	Geoscience Research
GEOL 4199*	Directed Readings
GEOL 5201*	Independent Research Projects I
GEOL 5202*	Independent Research Projects II
MGMT 3269	Project Management
NTSC 3301	Environmental Health
PHYS 3103	Introduction to Biophysics

Foundational Natural Sciences

(Minimum 15 credits from the list)

Course ID	**Title**
BCEM 2201	General Biochemistry
BCEM 3201	Protein Biochemistry
BCEM 3202	Enzymes and Metabolic Systems
BCEM 4201	Lipids and Membranes
BIOL 1202	Introduction to Cell Biology
BIOL 1205	The Organization and Diversity of Life
BIOL 2101	Genetics
BIOL 2105	Microbiology I
BIOL 2110	Comparative Vertebrate Anatomy and Physiology

BIOL 2202	Cellular and Molecular Biology
BIOL 2213	Principles of Ecology and Evolution
CHEM 1201	General Chemistry – Structure and Bonding
CHEM 1202	General Chemistry – Introduction to Quantitative Chemistry
CHEM 1203	The Organic Chemistry of Life
CHEM 1207	General Chemistry for the Environmental Sciences
CHEM 2101	Organic Chemistry I
CHEM 2102	Organic Chemistry II
CHEM 2111	The Organic Chemistry of Life
CHEM 2157	Industrial Organic Chemistry
CHEM 2401	Inorganic Chemistry
CHEM 2601	Introduction to Physical Chemistry
GEOG 1101	The Physical Environment
GEOL 1101	The Dynamic Earth
GEOL 1109	Introduction to Geology
PHYS 1201	Classical Physics I
PHYS 1202	Classical Physics II

Mathematics or Statistics Courses

(Minimum of 3 credits selected from the list)

Course ID	**Title**
ENVS 1105	Data Processing and Statistics
MATH 1185	Calculus with Applications
MATH 1200	Calculus for Scientists I
MATH 1202	Calculus for Scientists II
MATH 1203	Linear Algebra for Scientists and Engineers
MATH 1224	Introduction to Statistics
MATH 2251	Calculus I
MATH 2203	Linear Algebra for Data Science
MATH 2333	Statistics for Life Sciences
MATH 2444	Statistical Data Analysis

Communication or Equivalent Courses

(Minimum of 3 credits selected from the list)

Course ID	**Title**
COMM 2500	Introduction to Communication Studies
CRWT ****	Any Creative Writing course
ENGL 1101	Writing for Academic Success
ENGL 2263	Technical Writing
ENGL ****	Any ENGL course with a reading and writing focus

GNED 1401	Writing for Academic Success
INTS 1240	Fundamentals of Professional Communication
SPCH 2001	Introduction to Public Speaking
SPCH 2003	Delivery Techniques for Presentation
SPCH 2007	Professional Speaking

Economics Courses

(Minimum of 3 credits selected from the list)

Course ID	**Title**
ECON 1101	Introduction to Microeconomics
ECON 1103	Introduction to Macroeconomics