

University of Calgary Approved Course List for Registration with the Agrology Profession in Alberta

For registration eligibility 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 of which at least 24 of these credits must be at the senior course (third or fourth year) level.
2. Foundational natural science coursework must be a minimum of 15 credits. Courses must be foundational to the agrology profession
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.

University of Calgary 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/Statistics, English/Communications, Economics.

Please note courses may be accepted by the Registration Committee on a case by case basis depending on the type of degree.

Introductory Agrology Courses

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

Some courses have been renamed or discontinued

► Courses with a red asterisk (*) require supporting documentation◄

Course ID	Title
ANTH 313	Anthropology of the Environment
BIOL 241	Energy Flow in Biological Systems
BIOL 309*	(BOT 309) Plants and People
BIOL 375	Insects, Science and Society
BIOL 453	Plants in Their Environment
CHEM 321	Environmental Chemistry
ECON 377	Economics and the Environment
EENE 355	Introduction to Energy and the Environment
ENSC 201	Introduction to Environmental Science
ENGO 351	Introduction to Geospatial Information Systems
GEOG 204	Global Environmental Change
GEOG 211	The Physical Environment
GEOG 231	Introduction to Geospatial Methods

GEOG 280	Thinking Spatially in a Digital World
GEOG 305	Weather and Climate
GEOG 307	Landform Processes and Morphology
GEOG 308	Climate and Ecosystems
GEOG 310	Landforms and Soils
GEOG 313	Soils and Vegetation
GEOG 321	Environmental Geography
GEOG 323	Geochemical Processes
GEOG 324	Society and Environmental Change
GEOG 333	Remote Sensing 1
GEOG 357	Geographical Information Systems 1
GEOG 373	Surficial Geology
GEOG 380	Geospatial Communication
GEOG 391	Geographic Field Studies
MKTG 317	Foundations of Marketing
PHIL 329	Business Ethics
PHIL 345	Issues in Environmental Ethics
ZOOL 435	Entomology

Senior Agrology Courses

(Minimum of 24 credits from the list)

Course ID	Title
BIOL 435	Biology of Fungi
BIOL 451	Conservation Biology
BIOL 591	Insect Biodiversity
BSEN 561	Ethical Issues and the Professional Manager
CMBB 543	Environmental Microbiology
CHEM 541	Concepts in Biochemical Toxicology
ENCI 508	Environmental Aspects of Energy
EASC 401	Methods in Earth Science
ECOL 413	Field Course in Ecology
ECOL 417	Aquatic Communities and Ecosystems
ECOL 419	Terrestrial Communities and Ecosystems
ECOL 429	Ecology of Individuals
ECOL 439	Ecology of Populations
ECOL 491*	Ecological Entomology
ECON 473	Water Resource Economics and Policy
ECON 475	Economics of Natural Resources
ECON 487	Environmental Economics
EENE 501	Pollution Prevention and Control for Energy Industry
EENE 503	Life Cycle Assessment
ENSC 401	Environmental Science Field Course I
ENSC 501	Environmental Science Field Course II
ENSC 502*	Special Problems in Environmental Management
ENSC 503	Environmental Assessment and Hearings
ENSC 504*	Research Project in Environmental Science
ENSC 505*	Special Problems in Environmental Science

Course ID	Title
GEOG 408	Meteorology and Hydrology
GEOG 410	Process Geomorphology
GEOG 411	Fluvial Geomorphology
GEOG 412	Soil Science
GEOG 413	Soil Characteristics and Formation
GEOG 417	Biogeography and Natural Ecosystems
GEOG 428	Sustainability and Political Ecology
GEOG 433	Remote Sensing II
GEOG 437	Applied Mapping Techniques
GEOG 457	Geographic Information Systems II
GEOG 480	Cartography and Geovisualization
GEOG 482	Geographic Information Systems Science
GEOG 484	Remote Sensing Essentials
GEOG 500	Critical Zone Science
GEOG 507	Glacial Geomorphic Systems
GEOG 509	Permafrost
GEOG 510	Biogeography and Landscape Ecology
GEOG 516	Ecohydrology
GEOG 517	Conservation GIS
GEOG 519	Landscape Ecology
GEOG 521*	Environmental Sustainability and Management
GEOG 522	Topics in Politics of the Environment
GEOG 530	Environmental Governance and Conflict
GEOG 534	Geographies of Food
GEOG 537	Field Studies in GIS and Natural Resource Management
GEOG 584	Advanced Remote Sensing
GLGY 353	Surficial Systems and Change
GLGY 403	Aqueous Geochemistry
GLGY 441	Field Techniques in Hydrogeology
GLGY 505	Contaminant Hydrogeology
PLBI 401	(BOT 401) Plant Biotechnology
PLBI 403	(BOT 303) Plant Physiology
PLBI 421	(BOT 321) Plant Cell Biology and Anatomy
PLBI 507	Advanced Topics in Plant Biology
PLBI 528*	Independent Studies in Plant Biology
PLBI 530*	Honours Research Project in Plant Biology
PLBI 541	(BOT 541) Taxonomy of the Seed Plants
PLBI 543	Plant Signalling and Development
ZOOL 461	Animal Physiology I
ZOOL 463	Animal Physiology II

Foundational Natural Sciences
(Minimum 15 credits from the list)

Course ID	Type
BCEM***	Any Biochemistry course foundational to Agrology (e.g., BCEM 393 Introduction to Biochemistry; BCEM 443 Metabolism; BCEM 471 Physical Biochemistry)
BIOL***	Any Biology course not listed under Introductory or Senior Agrology and foundational to Agrology (e.g., BIOL 205 The Organization and Diversity of Life; BIOL 243 DNA, Inheritance and Evolution; BIOL 307 Ecology and Human Affairs)
CMBB 343	Microbiology
CHEM***	Any Chemistry course not listed under Introductory or Senior Agrology and foundational to Agrology (e.g., CHEM 201 General Chemistry; Structure and Bonding; CHEM 203 General Chemistry: Change and Equilibrium; CHEM 321 Organic Chemistry I)
CHEM 521	Introduction to Atmospheric Chemistry
GEOG 405*	Applied Climatology
GEOG 415	Hydrology
GEOG 503	Climate Change
GLGY 323	Geochemical Processes
GLGY 401	Physical Hydrogeology
PHYS***	Any Physics courses foundational to Agrology (e.g., PHYS 211 Mechanics; PHYS 223 Introductory Electromagnetism, and Thermal Physics; PHYS 323 Optics and Electromagnetism)
PLBI 327	Systematics and Diversity of Plants

Mathematics or Statistics Courses
(Minimum of 3 credits selected from the list)

Course ID	Title
MATH***	Any math course in linear algebra or calculus (e.g., MATH 211 Linear Methods I; MATH 213 Linear Algebra I; MATH 249 Introductory Calculus)
STAT ***	Any statistics course (e.g., STAT 205 Introduction to Statistical Inquiry; STAT 321 Introduction to Probability; STAT 431 Introduction to Biostatistics)
BIOL 315	Quantitative Biology I
ECOL 425	Quantitative Biology II
GEOG 339	Analytical Methods in Geography 1
GEOG 439	Analytical Methods in Geography II
GEOG 485	Quantitative Analysis
GLGY 507	Geostatistics
GEOG 585	Multivariate Statistics
SCIE 301	Research Design and Statistical Analysis
STATS 327	Statistics of the Physical and Environmental Sciences

Communication or Equivalent Courses

(Minimum of 3 credits selected from the list)

Course ID	Title
COMS 363	Professional and Technical Communication
COMS 369	Rhetorical Communication
COMS 485	Environmental Media Communications
ENGL***	Any English course (e.g., ENGL 253 Studies in Genre)
EVDS 502	Designing Powerful Communication
SCIE 311	Writing and Reviewing Scientific Reports

Economics Courses

(Minimum of 3 credits selected from the list)

Course ID	Title
ECON 201	Principles of Microeconomics
ECON 203	Principles of Macroeconomics
ECON 301	Intermediate Economic Theory – Microeconomics I
ECON 303	Intermediate Economic Theory – Macroeconomics I