

University of Victoria Approved Course List for Registration with the Agrology Profession in British Columbia

List includes courses from the Departments of Biology, Geography, Environmental Studies, and Earth and Ocean Sciences

To be registered as an Articling Agrologist (AAg) leading to the Professional Agrologist (PAg) designation, applicants must have obtained:

A Bachelor's Degree with a science focus from a recognized university of which the course work must consist of the following:

a. A minimum of 8 entry level <u>foundational</u> knowledge courses, usually at the 100 or 200 level, in the subject matters listed on the Academic Worksheet. Applicants may have more than 1 entry level course in the same subject matter <u>and cannot double count in the other two sections of the worksheet</u>.

These can include courses in:

- biology
- biochemistry
- hydrology
- genetics
- chemistry
- earth sciences
- physical geography
- physics
- ecology

- microbiology
- geology

May include courses that are of benefit to the study of natural sciences or agrology:

- math
- statistics
- computer science
- economics
- communications/Writing
- b. At least 20 courses in agricultural **or** natural sciences **or** agricultural **or** resource economics that relate directly to agrology (as defined by the *Agrologists Regulation*, 2021).
- c. At least 8 senior level courses (can come from within the above noted 20 course requirement) in agricultural **or** natural sciences **or** agricultural **or** resource economics that relate directly to agrology (as defined by the *Agrologists Regulation*, *2021*). Only senior courses (3rd year level and higher) taught by a Recognized University are recognized as senior level courses.

Courses that are considered eligible for meeting the coursework requirements for BCIA registration are listed in the following categories: Agrology, Foundational Natural Science; Mathematics or Statistics; Economics, Communications / Writing and Computer Science. *The Credentials Committee has the authority to limit how many foundational courses are accepted in each subject matter.*

*Course requires supporting documentation; may or may not be accepted depending on subject matter

This course listing is a guideline only; the Credentials Committee determines eligibility based on a comprehensive course by course review ensuring the academic worksheet is optimized while remaining within the minimum registration requirements.

100-200 Agrology Courses

Course ID	Title
EOS 100	Earth, Ocean and Atmosphere
EOS 110	Oceans and Atmosphere
EOS 240	Geochemistry
ES 270 *	Introductory Field Study
GEOG 101A	Environment, Society and Sustainability
GEOG 222	Introduction to Maps and GIS
GEOG 226	Introduction to Quantitative Methods in Geography
GEOG 228	Introduction to Remote Sensing
GEOG 252	Introduction to Coastal Geography
GEOG 272	Introduction to Climatology and Hydrology
GEOG 274	Introduction to Biogeography
GEOG 276	Introduction to Geomorphology

300-400+ Agrology Courses

Course ID	Title
BIOL 307	Chordate Zoology
BIOL 311 (EOS 311)	Biological Oceanography
BIOL 312	Entomology
BIOL 318	Systematics: Flower Plants
BIOL 319	Marine Ecology
BIOL 321	Survey of Invertebrates
BIOL 322	Marine Invertebrates
BIOL 323	Algae and Fungi
BIOL 324	Biology of Land Plants
BIOL 325	Tree Biology
BIOL 326	Development and Genetics of Model Plants
BIOL 329	Biology of Vertebrates in British Columbia
BIOL 330	Ecological Methods
BIOL 335	Ichthyology
BIOL 336	Biology of Algae
BIOL 338	Applied Plant Physiology
BIOL 343	Developmental Plant Anatomy
BIOL 345	Animal Behaviour
BIOL 346	Freshwater Ecosystems
BIOL 355	(The Science of) Evolution
BIOL 359	Food, Disease and People
BIOL 360	Cell Biology
BIOL 361	Molecular Genetics and Genomics
BIOL 362	Techniques in Molecular Biology
BIOL 365	Animal Physiology
BIOL 366	Plant Physiology
BIOL 370 (ES 320)	Conservation Biology

BIOL 401A	Biotechnology
BIOL 408	The Biology of Pollution
BIOL 415C	Mycology
BIOL 418	Forest Ecology
BIOL 435	Molecular Evolution
BIOL 438	Nutrient Cycling and Prokaryotes
BIOL 443	Biology of Conifers
BIOL 446	Advanced Aquatic Ecology
BIOL 449 (ES 425)	Flowering Plant Diversity
BIOL 453	Stress Physiology: Plants
BIOL 458	Plant Biochemistry and Biochemical Ecology
BIOL 461	Fisheries Ecology and Management
BIOL 462	Community and Ecosystem
BIOL 468	Food Web Ecology
BIOL 499A *	Honours Thesis I
BIOL 499B *	Honours Thesis II
BIOL 538	Nutrient Cycling and Prokaryotes
BIOL 550 *	Directed Studies
	Environmental Economics
ECON 381 (ES 312) EOS 311 (BIOL 311)	
EOS 311 (BIOL 311)	Biological Oceanography
	Atmospheric Sciences
EOS 403 (EOS 503)	Global Biogeochemical Cycles
EOS 433	The Climate System
EOS 460	Earth System Science
EOS 490 *	Directed Studies in Earth and Ocean Sciences
EOS 499A *	Honours Thesis I
EOS 499B *	Honours Thesis II
ER 311 (ES 341)	Principles and Concepts of Ecological Restoration
ER 312A *	Field Study in Ecological Restoration I
ER 312B *	Field Study in Ecological Restoration II
ER 313	Biodiversity and Conservation Biology
ER 314	Ethical, Legal and Policy Aspects of Environmental Restoration
ER 325	Ecosystem: BC, Canada & World
ER 326 (ES 423)	Traditional Land Resource Management
ER 328	Forest Restoration and Sustainable Forestry
ER 329	Mining Restoration
ER 331	Urban Restoration and Sustainable Agricultural Systems
ER 332	Selection and Propagation of Native Plants for Ecological Restoration
ER 334	Soil Conservation and Restoration
ER 335A	Restoration of Freshwater Aquatic Systems
ER 335B	Restoration of Marine Aquatic Systems
ER 338 *	Special Topics in Environmental Restoration
ER 338A *	Special Topics in Environmental Restoration: Climate Change in Ecological
	Restoration
ER 338B *	Special Topics in Environmental Restoration: Fire Ecology
ER 390 *	Environmental Restoration Project

ER 411	Advanced Principles and Concepts of Ecological Restoration
ES 312 (ECON 381)	Environmental Economics
ES 320 (BIOL 370)	Conservation Biology
ES 321	Ethnoecology
ES 341	Ecological Restoration
ES 348	Biodiversity and Conservation Biology
ES 361	The Biodiversity of British Columbia
ES 370 *	Intermediate Field Study
ES 382 *	Environmental Topics: Topics in Ecological Restoration
ES 403	Field Course in Environmental Law and Sustainability
ES 423 (ER 326)	Traditional Land Resource Management
ES 425 (BIOL 449)	Flowering Plant Diversity
ES 432	Environmental Protection
ES 441	Advanced Principles and Practise in Ecological Restoration
ES 443	Climate Change and Biodiversity
ES 446	Sustainable Fisheries
ES 461	Environmental Impact Assessment
ES 470 *	Advanced Field Study
ES 481*	Advanced Environmental Topics in Ethnoecology
ES 482 *	Advanced Environmental Topics in Ecological Restoration
ES 490 *	Directed Studies
ES 500*	Perspectives on Environmental Theories, Methods and Skills I
ES 501	Perspectives on Environmental Theories, Methods and Skills II
ES 582*	Seminar in Ecological Restoration
ES 590*	Directed Studies
GEOG 301	Environmental Impact Assessment
GEOG 319	Remote Sensing of the Environment
GEOG 322	Digital Remote Sensing
GEOG 323	Cartography
GEOG 325	Field Surveying
GEOG 326	Spatial Topics: Data Analysis
GEOG 328	GIS Analysis
GEOG 329	GIS Applications and Tools
GEOG 352	Introduction to the Geography of the Coastal Zone
GEOG 353	Coastal and Marine Resources
GEOG 357	Parks and Protected Areas
GEOG 358	Landscape Ecology
GEOG 370	Hydrology
GEOG 371	Water Resources Management
GEOG 372	Physical Climatology
GEOG 373	Applied Climatology
GEOG 374	Biogeography
GEOG 375	Forest Resource Management
GEOG 376	Process Geomorphology
GEOG 377	Applied Geomorphology
GEOG 379	Pedology

GEOG 391*	Tonics in Coography
	Topics in Geography
GEOG 418	Advanced Spatial Analysis
GEOG 422	Advanced Topics in Remote Sensing
GEOG 424	Field Studies in Coastal Geomorphology
GEOG 428	Advanced Topics in Geographic Information Sciences
GEOG 438	Aquaculture in British Columbia
GEOG 450	Decision Making in Resources Management
GEOG 453*	Field Studies in Coastal and Marine Resources
GEOG 455 (457)	Parks and Wilderness
GEOG 456	Wildlife Conservation
GEOG 457	Marine Protected Areas
GEOG 474 *	Field Studies in Biogeography
GEOG 476*	Advanced Studies in Geomorphology
GEOG 477 (471D)*	Field Studies in Physical Geography
GEOG 484	Advanced Studies in Weather and Climate
GEOG 487	Advanced Landscape Ecology
GEOG 490 *	Directed Studies in Geography
GEOG 491*	Advanced Topics in Geography
GEOG 499A *	Honours Thesis
GEOG 499B *	Honours Thesis
MICR 302	Molecular Microbiology
MICR 405	Biotechnology & Synthetic Biology
MICR 408	Microbial Pathogenesis
MRNE 415	Structure and Function: Animals
MRNE 437	Marine Population Ecology + Dynamics

Foundational Natural Science Courses – for Section 1 in the BCIA Academic Worksheet

Course ID	Title
BIOC 200	Introductory Biochemistry
BIOC 299	Biochemistry for Non-Majors
BIOC 300A	General Biochemistry I
BIOC 300B	General Biochemistry II
BIOL 150A	Modern Biology
BIOL 150B	Modern Biology
BIOL 184	Evolution and Biodiversity
BIOL 186	Physiology and Cell Biology
BIOL 190A	General Biology I
BIOL 190B	General Biology II
BIOL 215	Principles of Ecology
BIOL 220	Principles of Physiology
BIOL 225	Principles of Cell Biology
BIOL 230	Principles of Genetics
BIOL 248 *	Topics In Organismal Biology
CHEM 101	Properties of Materials
CHEM 102	Environmental and Physical Chemistry

CHEM 222 Introduction to Inorganic Chemistry CHEM 231 Introduction to Organic Chemistry CHEM 232 (CHEM 234) Organic Chemistry with Biological Applications CHEM 234 (CHEM 232) Organic Chemistry with Biological Applications CHEM 235 Organic Chemistry CHEM 245 Introductory Physical Chemistry EOS 101 Earth's History EOS 120 The Dynamic Earth EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introductory Geophysics ES 240 Ecological Processes GEOG 103 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Microbiology I MICRO 200A Introduction to Microbiology I PHYS 102A General Physics I PHYS 102B General Physics II PHYS 111 Introductory Physics II PHYS 111 Introductory Physics II PHYS 111 Introductory Physics II PHYS 111		
CHEM 232 (CHEM 234) Organic Chemistry with Biological Applications CHEM 234 (CHEM 232) Organic Chemistry with Biological Applications CHEM 235 Organic Chemistry CHEM 245 Introductory Physical Chemistry EOS 101 Earth's History EOS 120 The Dynamic Earth EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	CHEM 222	Introduction to Inorganic Chemistry
CHEM 234 (CHEM 232) Organic Chemistry with Biological Applications CHEM 245 Organic Chemistry EOS 101 Earth's History EOS 120 The Dynamic Earth EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology II MICRO 200B Introduction to Microbiology II PHYS 102B General Physics I PHYS 111 Introductory Physics II Introductory Physics II	CHEM 231	Introduction to Organic Chemistry
CHEM 245 Introductory Physical Chemistry EOS 101 Earth's History EOS 120 The Dynamic Earth EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology II MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	CHEM 232 (CHEM 234)	Organic Chemistry with Biological Applications
CHEM 245 Introductory Physical Chemistry EOS 101 Earth's History EOS 120 The Dynamic Earth EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	CHEM 234 (CHEM 232)	Organic Chemistry with Biological Applications
EOS 101 Earth's History EOS 120 The Dynamic Earth EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	CHEM 235	Organic Chemistry
EOS 120 The Dynamic Earth EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	CHEM 245	Introductory Physical Chemistry
EOS 201 Sedimentary Geology EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	EOS 101	Earth's History
EOS 202 Structural Geology EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	EOS 120	The Dynamic Earth
EOS 205 Mineralogy EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	EOS 201	Sedimentary Geology
EOS 210 Introductory Geophysics ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	EOS 202	Structural Geology
ES 200 Introduction to Environmental Studies ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics II PHYS 111 Introductory Physics II	EOS 205	Mineralogy
ES 240 Ecological Processes GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics I PHYS 111 Introductory Physics II	EOS 210	Introductory Geophysics
GEOG 103 Introduction to Physical Geography MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics I PHYS 111 Introductory Physics II	ES 200	Introduction to Environmental Studies
MICRO 200A Introduction to Microbiology I MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics I PHYS 111 Introductory Physics II	ES 240	Ecological Processes
MICRO 200B Introduction to Microbiology II PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics I PHYS 111 Introductory Physics II	GEOG 103	Introduction to Physical Geography
PHYS 102A General Physics I PHYS 102B General Physics II PHYS 110 Introductory Physics I PHYS 111 Introductory Physics II	MICRO 200A	Introduction to Microbiology I
PHYS 102B General Physics II PHYS 110 Introductory Physics I PHYS 111 Introductory Physics II	MICRO 200B	Introduction to Microbiology II
PHYS 110 Introductory Physics I PHYS 111 Introductory Physics II	PHYS 102A	General Physics I
PHYS 111 Introductory Physics II	PHYS 102B	General Physics II
• •	PHYS 110	Introductory Physics I
PHYS 112 Basic Physics	PHYS 111	Introductory Physics II
	PHYS 112	Basic Physics

Mathematics/Calculus, Statistics Courses – for Section 1 in the BCIA Academic Worksheet

Course ID	Title
MATH 100	Calculus: I
MATH 101	Calculus: II
MATH 102	Calculus for Student in the Social and Biological Sciences
MATH 120	Pre-calculus Mathematics
MATH 151	Finite Mathematics
MATH 211	Matrix Algebra: I
ES 344 (BIOL 330)*	Study Design and Data Analysis
STAT 255	Statistics for Life Sciences

Economics, Communications/Writing Courses – for Section 1 in the BCIA Academic Worksheet

Course ID	Title
ECON 103	Principles of Microeconomics
ECON 104	Principles of Macroeconomics
ENGL 115	College Composition
ENGL 135	Academic Reading and Writing
ES 378	Leadership Skills for Change