

UBC-Okanagan Approved Course List for Registration with the Agrology Profession in British Columbia

List includes courses from Earth and Environmental Sciences, Biology, Geography, Ecology and Evolutionary Biology programs

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
- hydrogeology
- 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
BIOL 204	Vertebrate Structure and Function
BIOL 205	Comparative Invertebrate Zoology
BIOL 209	Algae, Fungi and Bryophytes
BIOL 210	Vascular Plants
EESC 212	Atmospheric Environments
EESC 213	Introductory Forest Science and Management
EESC 222	Geomorphology
GEOG 108	Earth Systems: Weather, Climate and Life
GEOG 109	Earth Systems: Landscape Dynamics
GEOG 200	Atmospheric Environments
GEOG 221	Food Systems 1: System Thinking
GEOG 222	Geomorphology
GEOG 271	Geographic Data Analysis
GEOG 272	Cartography and Remote Sensing

300-400+ Agrology Courses

Course ID	Title
APBI 428	Integrated Pest Management
BIOC 310	Plant Biochemistry
BIOL 306	Ecology of Animals
BIOL 307	Limnology
BIOL 308	Population Biology
BIOL 309	Field Ecology of Plants and Soil
BIOL 314	Medical Microbiology
BIOL 330	Freshwater Microbiology
BIOL 354	Cell Physiology
BIOL 356	Comparative Animal Physiology
BIOL 357	Introduction to Entomology
BIOL 358	Plant Ecophysiology
BIOL 363	Developmental Biology
BIOL 364	Evolutionary Development
BIOL 366	Molecular Genetics
BIOL 371	Flora of British Columbia
BIOL 372	Field Ornithology
BIOL 375	Flora and Fauna of Inland Waters
BIOL 380	Food and Industrial Microbiology
BIOL 381	Environmental Microbiology
BIOL 401	Spatial Ecology
BIOL 410	Plant-Microbe Interactions
BIOL 414 *	Advanced Field Ecology
BIOL 420 *	Special Topics in Biology
BIOL 422	Conservation Biology

BIOL 440*	Honours Thesis
BIOL 452 *	Directed Studies in Biology
BIOL 459	Behavioural Ecology
BIOL 460	Population Genetics
BIOL 467	Comparative Environmental Physiology
BIOL 468	Molecular Approaches in Ecology and Evolution
BIOL 503 *	Integrated Approaches to Scientific Problems
BIOL 510	Plant–Microbe Interactions
BIOL 513	Conservation Biology
BIOL 514 *	Advanced Field Ecology
BIOL 520 *	Special Topics in Biology
BIOL 522 *	Directed Studies in Biology
BIOL 552A*	Directed Studies in Biology
BIOL 560	Population Genetics
BIOL 567	Comparative Environmental Physiology
BIOL 568	Molecular Approaches in Ecology and Evolution
BIOL 599*	Molecular Approaches in Leology and Evolution MSc Thesis
CHEM 301	Aqueous Environmental Chemistry
CHEM 301	Atmospheric Environmental Chemistry
CHEM 302 CHEM 317	Environmental Organic Chemistry
ECON 371	Economics of the Environment
ECON 372	Natural Resource Economics
EESC 301	Limnology
EESC 303	Oceanography
EESC 304 (GEOG 340) EESC 305	Anthropogenic Climate Change
	Land Use Hydrology
EESC 309	Global Biogeochemistry
EESC 313	Management of Forested Watersheds
EESC 314	Environmental Impact Assessment: Process, Regulation and Admin
EESC 315	Environmental Impact Assessment: Techniques and Practice
EESC 323	Geochemistry
EESC 333	Analytical Geochemistry
EESC 341	Quaternary Paleoecology and Environmental Change
EESC 342	Hydrogeology
EESC 356	Stratigraphy and Sedimentation (only accepted based on appropriate
5566 200	content)
EESC 380	Now under GISC 380
EESC 381	Now under GISC 381
EESC 402	Freshwater Resources
EESC 413	Analytical Methods in Hydrology
EESC 417	Terrain Analysis
EESC 418*	Special Topics in Earth and Environmental Science
EESC 419*	Special Topics in Earth and Environmental Science
EESC 422 (GEOG 422)	Fluvial Geomorphology
EESC 423	Tracers of Natural Processes
EESC 431	Quaternary Glacial Environments

EESC 435	Fluvial Field Techniques
EESC 444	Dynamic Modelling of Human-Environment Systems
EESC 448 *	Directed Studies in Earth and Environmental Sciences
EESC 449 *	Honours Thesis
EESC 456	Soil Science
EESC 502	Environmetrics
EESC 512	Applied Data Analysis in Geosciences
EESC 544	Dynamic Modelling of Human-Environments Systems
EESC 551 *	Special topics in Earth and Environmental Sciences
EESC 552 *	Directed Readings in Earth and Environmental Sciences
GEOG 301	Mechanisms of Global Change
GEOG 304 (EESC 304)	Anthropogenic Climate Change
GEOG 307	Advanced Biogeography
GEOG 314	Environmental Impact Assessment: Process, Regulation and Admin
GEOG 317	The Physical Environment of BC
GEOG 318	Rural Geographies
GEOG 356	Stratigraphy and Sedimentology
GEOG 380	Now under GISC 380
GEOG 381	Now under GISC 381
GEOG 414	Applied Climatology
GEOG 421	Geography of Food Systems
GEOG 422 (EESC 422)	Fluvial Geomorphology
GEOG 435	Wine Geographies
GEOG 437	Terrain Analysis
GEOG 466	Soil Science
GEOG 491*	Selected Topics in Geography
GEOG 498 *	Directed Studies in Geography
GISC 380	Fundamentals of Geographic Information Science I
GISC 381	Fundamentals of Geographic Information Science II
GISC 480	Practical Applications in GIS

Foundational Natural Science Courses

Course ID	Title
BIOL 116	Biology for Science Majors I
BIOL 125	Biology for Science Majors II
BIOL 200	Cell Biology
BIOL 201	Introduction to Evolution and Ecology
BIOL 228	Introductory Microbiology
BIOL 203	Introduction to Ecology
BIOL 265	Principles of Genetics
BIOL 311	Biochemistry I
BIOL 319	Biochemistry II
CHEM 111	Principles of Chemistry I
CHEM 113	Principles of Chemistry II
CHEM 121	Structural Chemistry

CHEM 123	Physical and Organic Chemistry
CHEM 201	Introduction to Physical Chemistry
CHEM 203	Introduction to Organic Chemistry
CHEM 204	Organic Chemistry
CHEM 211	Analytical Chemistry
CHEM 213	Organic Chemistry for Biological Sciences I
CHEM 214	Organic Chemistry for Biological Sciences II
CHEM 220	Atomic Structure and Molecular Bonding
CHEM 311	Instrumental Analytical Chemistry
EESC 101	Environmental Science
EESC 111	Earth Science
EESC 121	Earth History
EESC 200	Mineralogy
EESC 205	Introduction to Hydrology
GEOG 205	Introduction to Hydrology
GEOG 207	Introduction to Biogeography
PHYS 102	Electricity, Light, and Radiation
PHYS 111	Introductory Physics for the Physical Sciences I
PHYS 112	Introductory Physics for the Life Sciences I
PHYS 121	Introductory Physics for the Physical Sciences II
PHYS 122	Introductory Physics for the Life Sciences II

Mathematics

Course ID	Title
MATH 100	Differential Calculus with Applications to Physical Sciences and Engineering
MATH 101	Integral Calculus with Applications to Physical Sciences and Engineering
MATH 200	Calculus III

Calculus & Statistics

Course ID	Title
BIOL 202	Introduction to Biostatistics
STAT 230	Introductory Statistics

Economics, Communications and Writing

Course ID	Title
BIO 313	Science Writing
ECON 101	Microeconomics
ECON 102	Macroeconomics
ENGL 112	Strategies for University Writing