

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 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 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 |
| ECON 381 (ES 312) | Environmental Economics |
| EOS 311 (BIOL 311) | Biological Oceanography |
| EOS 311 (BIOL 311) | |
| | Atmospheric Sciences |
| EOS 403 (EOS 503) EOS 433 | Global Biogeochemical Cycles |
| | 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 |
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| 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* | Topics in Geography |
| GEOG 418 | Advanced Spatial Analysis |
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| 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 Weather and Climate GEOG 484 Advanced Studies in Weather and Climate GEOG 487 Advanced Studies in Geography GEOG 490 * Directed Studies in Geography GEOG 490 * Directed Studies in Geography GEOG 4998 * Honours Thesis GEOG 4998 * Honours Thesis MICR 302 Molecular Microbiology MICR 408 Microbial Pathogenesis MRNE 415 Structure and Function: Animals MRNE 437 Marine Population Ecology + Dynamics | 0500 400 | |
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| 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 | GEOG 422 | Advanced Topics in Remote Sensing |
| 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 | GEOG 424 | Field Studies in Coastal Geomorphology |
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| MICR 405 Biotechnology & Synthetic Biology MICR 408 Microbial Pathogenesis MRNE 415 Structure and Function: Animals | GEOG 499B * | Honours Thesis |
| MICR 408 Microbial Pathogenesis MRNE 415 Structure and Function: Animals | MICR 302 | Molecular Microbiology |
| MRNE 415 Structure and Function: Animals | MICR 405 | Biotechnology & Synthetic Biology |
| | MICR 408 | Microbial Pathogenesis |
| MRNE 437 Marine Population Ecology + Dynamics | MRNE 415 | Structure and Function: Animals |
| | MRNE 437 | Marine Population Ecology + Dynamics |

Foundational Natural Science Courses

| Course ID | Title |
|---------------------|--|
| BIOC 200 | Introductory Biochemistry |
| 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 |
| 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 112 | Basic Physics |

Mathematics, Calculus & Statistics

| 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

| Course ID | Title |
|-----------|------------------------------|
| ECON 103 | Principles of Microeconomics |
| ECON 104 | Principles of Macroeconomics |

Communications/Writing

| Course ID | Title |
|-----------|------------------------------|
| ENGL 115 | College Composition |
| ENGL 135 | Academic Reading and Writing |
| ES 378 | Leadership Skills for Change |