

## 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 foundational 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 and cannot double count in the other two sections of the worksheet.

**These can include courses in:**

- |                      |  |
|----------------------|--|
| - biology            | - microbiology   |
| - biochemistry       | - geology  |
| - hydrology          |  |
| - genetics           | <b>May include courses that are of benefit to<br/>the study of natural sciences or agrology:</b> |
| - chemistry          | - math   |
| - earth sciences     | - statistics   |
| - physical geography | - computer science   |
| - physics            | - economics  |
| - ecology            | - 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 205 (GEOG 205) | Introduction to Hydrology                  |
| EESC 212 (GEOG 200) | Atmospheric Environments                   |
| EESC 213            | Introductory Forest Science and Management |
| EESC 222 (GEOG 222) | Geomorphology                              |
| FDSY 221 (GEOG 221) | Food Systems 1: System Thinking            |
| GEOG 108            | Earth Systems: Weather, Climate and Life   |
| GEOG 109            | Earth Systems: Landscape Dynamics          |
| GEOG 200 (EESC 212) | Atmospheric Environments                   |
| GEOG 205 (EESC 205) | Introduction to Hydrology                  |
| GEOG 221 (FDSY 221) | Food Systems 1: System Thinking            |
| GEOG 222 (EESC 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*           | MSc Thesis   |
| CHEM 301            | Aqueous Environmental Chemistry                                |
| CHEM 302            | Atmospheric Environmental Chemistry                            |
| 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 304) | Anthropogenic Climate Change                                   |
| EESC 305            | 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 342            | Hydrogeology   |
| EESC 380 (GISC 380) | Fundamentals of Geographic Information Science I               |
| EESC 381 (GISC 381) | Fundamentals of Geographic Information Science II              |
| EESC 402            | Freshwater Resources   |
| EESC 413            | Analytical Methods in Hydrology                                |
| 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 429            | Contaminant Hydrogeology                                       |
| EESC 431            | Quaternary Glacial Environments                                |

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|---------------------|--|
| EESC 435            | Fluvial Field Techniques                                       |
| EESC 437 (GEOG 437) | Terrain Analysis   |
| EESC 444 (EESC 544) | 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 (EESC 444) | Dynamic Modelling of Human-Environment 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 370            | Introduction to Geographic Information Science                 |
| GEOG 380 (GISC 380) | Fundamentals of Geographic Information Science I               |
| GEOG 381 (GISC 381) | Fundamentals of Geographic Information Science II              |
| GEOG 414            | Applied Climatology  |
| GEOG 421            | Geography of Food Systems                                      |
| GEOG 422 (EESC 422) | Fluvial Geomorphology  |
| GEOG 435            | Wine Geographies   |
| GEOG 437 (EESC 437) | Terrain Analysis   |
| GEOG 466            | Soil Science   |
| GEOG 491*           | Selected Topics in Geography                                   |
| GEOG 498 *          | Directed Studies in Geography                                  |
| GISC 380 (GEOG 380) | Fundamentals of Geographic Information Science I               |
| GISC 381 (GEOG 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  |
| 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 103  | Integral Calculus with Applications to Life Sciences                         |
| MATH 200  | Calculus III   |

### Calculus & Statistics

| Course ID | Title                         |
|-----------|-------------------------------|
| BIOL 202  | Introduction to Biostatistics |
| STAT 121  | Elementary Statistics         |
| STAT 230  | Introductory Statistics       |

### Economics, Communications and Writing

| Course ID | Title                             |
|-----------|-----------------------------------|
| BIO 313   | Science Writing                   |
| ECON 101  | Microeconomics                    |
| ECON 102  | Macroeconomics                    |
| EESC 398  | Technical Communication           |
| ENGL 112  | Strategies for University Writing |