



Professional Engineers
and Geoscientists of BC
www.apegbc.ca

Simon Fraser University

Environmental Geoscience Course Equivalent Listing

(Updated June 2013)

NOTE: This course listing is a reflection of APEGBC's adoption of the Geoscientists Canada "Geoscience Knowledge Requirements". Since January 2011, geoscience applicants have the option of attempting to meet the academic requirements either by applying under this 2011 syllabus or the previous 2006 syllabus. The courses in this document have been identified in consultation with Simon Fraser University. Please be aware that course codes can be subject to change at any time.

APEGBC - ENVIRONMENTAL GEOSCIENCE SYLLABUS – SFU COURSE EQUIVALENT LIST

This Geoscience Syllabus Should be Used as a Guide and May Be Subject to Change

****Please note a course can only be used ONCE on the checklist****

Name: _____

System ID#: _____

| | Number | Description | SFU Course | For Applicant Use |
|---|---------------------|---------------------------------|--|-------------------|
| Group: 1A – Compulsory Foundation Science – 11-GEOCOM- Fundamental Science (3 Required) | | | | |
| | FS-A1 | Calculus (1 semester) | MATH 150, 151, 154, 157 (Choose One) | |
| | FS-A2 | Physics (1 semester) | PHYS 101,120, 125, 140 (Choose One) | |
| | FS-A3 | Chemistry (1 semester) | CHEM 121 | |
| Group: 1B – Additional Foundation Science – 11-GEOCOM- Electives (6 Required – NO MORE THAN TWO COURSES IN ANY ONE SUBJECT) | | | | |
| | COM-B1 | Mathematics | MATH 152, 155, 158 or any 200 level or higher | |
| | COM-B2 | Chemistry | CHEM 122 & 126 or any 200 level or higher | |
| | COM-B3 | Physics | PHYS 102 & 130, 121 & 131, 126 & 131, or PHYS 141, or any 200 level PHYS or higher | |
| | COM-B4 | Biology | BISC 101, 102, GEOG 215 or any 200 level BISC or higher | |
| | COM-B5 | Computer Programming | Any 100 level CMPT or higher (Must have programming content) | |
| | COM-B6 | Statistics | STAT 101, 201, 270, GEOG 251 | |
| Group: 2A – Compulsory Geoscience – 11-GEOCOM- Compulsory (4 Required) | | | | |
| | COM-A1 | Mineralogy & Petrology | EASC 202 & 205 | |
| | COM-A2 | Sedimentation & Stratigraphy | EASC 201 | |
| | COM-A3 | Structural Geology | EASC 204 | |
| | COM-A4 | Field Techniques | GEOG 310, EASC 206 & 306, EASC 406 | |
| Group: 2B – Foundation Environmental Geoscience – 11-EG – Compulsory (5 Required – Must have a minimum of one and at most , two from each sub-group, but no more than one in each subject) | | | | |
| Group A | FEG-A1 | Geophysics | EASC 207 | |
| | FEG-A2 | Geochemistry | EASC 208, GEOG 316 | |
| Group B | FEG-A3 *choose 1 | Hydrology/ Hydrogeology | GEOG 311, EASC 304 | |

APEGBC - ENVIRONMENTAL GEOSCIENCE SYLLABUS – SFU COURSE EQUIVALENT LIST

This Geoscience Syllabus Should be Used as a Guide and May Be Subject to Change

****Please note a course can only be used ONCE on the checklist****

| | Number | Description | SFU Course | For Applicant Use |
|--|---------------------|--------------------------------|---|--------------------------|
| | FEG-A4 | Engineering Geology | EASC 313, 413 | |
| Group C | FEG-A5 *choose 1 | Geomorphology/ Soil Science | GEOG 213, 317 | |
| | FEG-A6 | Glacial Geology | GEOG 412, EASC 403 | |
| | FEG-A7 | Remote Sensing | GEOG 253, 353 | |
| Group: 2C – Other Environmental Geoscience – 11-EG – Electives (9 Required) | | | | |
| Communication | EG-C1 | Thesis | GEOG 491, EASC 499 | |
| | EG-C2 | Technical Writing | NO EQUIVALENT COURSE | |
| Earth Systems | EG-C3 | Climatology | GEOG 214, GEOG 314, GEOG 414 | |
| | EG-C4 | Meteorology | CHEM 372 | |
| | EG-C5 | Oceanography | NO EQUIVALENT COURSE | |
| | EG-C6 | Paleoenvironmental Studies | NO EQUIVALENT COURSE | |
| | EG-C7 | Paleoclimatology | NO EQUIVALENT COURSE | |
| | EG-C8 | Paleoecology | BISC 434, EASC 310 | |
| | EG-C9 | Ecology | BISC 204, GEOG 215 | |
| Environmental Assessment | EG-C10 | Environmental Assessment. | REM 445 | |
| Field Techniques | EG-C11 | Field Techniques | GEOG 310, EASC 206 & 306, EASC 406, EASC 416 | |
| Geochemistry | EG-C12 | Environmental Geochemistry | EASC 208, GEOG 316 CHEM 371 | |
| | EG-C13 | Isotope Geochemistry | NO EQUIVALENT COURSE | |
| | EG-C14 | Aqueous Geochemistry | EASC 315, 412, CHEM 371 | |
| | EG-C15 | Biogeochemistry | GEOG 316 | |
| | EG-C16 | Atmospheric Geochemistry | CHEM 372 | |
| | EG-C17 | Low Temperature Geochemistry | NO EQUIVALENT COURSE | |

APEGBC - ENVIRONMENTAL GEOSCIENCE SYLLABUS – SFU COURSE EQUIVALENT LIST

This Geoscience Syllabus Should be Used as a Guide and May Be Subject to Change

****Please note a course can only be used ONCE on the checklist****

| Group: 2C – Other Environmental Geoscience – 11-EG – Electives (9 Required) continued | | | | |
|--|--------|-----------------------------|--------------------------------------|--|
| Geomorphology/ Surficial | EG-C18 | Geomorphology | GEOG 213, 313, 412, 413, EASC 411 | |
| | EG-C19 | Natural Hazards | GEOG 312, EASC 303 | |
| | EG-C20 | Quaternary Geology | GEOG 412, EASC 403 | |
| | EG-C21 | Pedology | GEOG 317, 417 | |
| | EG-C22 | Glaciology | EASC 314 | |
| Geophysics | EG-C23 | Environmental Geophysics | NO EQUIVALENT COURSE | |
| | EG-C24 | Exploration Geophysics | EASC 317 | |
| | EG-C25 | Applied Geophysics | EASC 307 | |
| Geotechnical | EG-C26 | Engineering Geology | EASC 313, 413 | |
| | EG-C27 | Soil Mechanics | EASC 313 | |
| | EG-C28 | Rock Mechanics | EASC 313 | |
| | EG-C29 | Resource Geotechnics | EASC 413 | |
| Hydrology/ Hydrogeology | EG-C30 | Contaminant Transport | EASC 410 | |
| | EG-C31 | Hydrogeology | EASC 304, EASC 405 | |
| | EG-C32 | Hydrology | GEOG 311, 411 | |
| | EG-C33 | Fluid Mechanics | GEOG 413 | |
| Mineralogy/ Petrology | EG-C34 | Crystallography | EASC 301 | |
| | EG-C35 | X-Ray Crystallography | NO EQUIVALENT COURSE | |
| | EG-C36 | Analytical Methods | CHEM 316 | |

APEGBC - ENVIRONMENTAL GEOSCIENCE SYLLABUS – SFU COURSE EQUIVALENT LIST

This Geoscience Syllabus Should be Used as a Guide and May Be Subject to Change

****Please note a course can only be used ONCE on the checklist****

| | Number | Description | SFU Course | For Applicant Use |
|--|--------|-------------------------------------|--|-------------------|
| Group: 2C – Other Environmental Geoscience – 11-EG – Electives (9 Required) continued | | | | |
| Paleontology | EG-C37 | Micropaleontology | EASC 310 | |
| | EG-C38 | Paleobiology | NO EQUIVALENT COURSE | |
| | EG-C39 | Palynology | BISC 434 | |
| Quantitative Analysis | EG-C40 | Geostatistics | GEOG 352, GEOG 451 | |
| | EG-C41 | Computer Applications in Geoscience | GEOG 351, 356, 451, 457, REM 412, EASC 305 | |
| | EG-C42 | Geographic Information Systems | GEOG 255, 355, 455 | |
| Regional Geology | EG-C43 | Geology of Canada | EASC 408 | |
| | EG-C44 | Geology of North America | NO EQUIVALENT COURSE | |
| Remote Sensing | EG-C45 | Remote Sensing | GEOG 253, 353, 453 | |
| | EG-C46 | Air Photo Interpretation | NO EQUIVALENT COURSE | |
| Resource Geology | EG-C47 | Economic Geology | NO EQUIVALENT COURSE | |
| | EG-C48 | Mineral Deposits | EASC 401 | |
| | EG-C49 | Ore Petrology | NO EQUIVALENT COURSE | |
| | EG-C50 | Coal Geology | NO EQUIVALENT COURSE | |
| | EG-C51 | Petroleum Geology | EASC 420 | |
| | EG-C52 | Industrial Minerals | NO EQUIVALENT COURSE | |
| Sedimentology | EG-C53 | Chemical Sedimentology | NO EQUIVALENT COURSE | |
| | EG-C54 | Clastic Sedimentology | EASC 302,402 | |
| | EG-C55 | Carbonate Sedimentology | EASC 402 | |
| | EG-C56 | Glacial Geology | GEOG 412, EASC 403 | |
| | EG-C57 | Limnogeology | BISC 414 | |

APEGBC - ENVIRONMENTAL GEOSCIENCE SYLLABUS – SFU COURSE EQUIVALENT LIST

This Geoscience Syllabus Should be Used as a Guide and May Be Subject to Change

*****Please note a course can only be used ONCE on the checklist*****

| | Number | Description | SFU Course | For Applicant Use |
|--|---------------|----------------------------|----------------------|--------------------------|
| Group: 2C – Other Environmental Geoscience – 11-EG – Electives (9 Required) continued | | | | |
| Stratigraphy | EG-C58 | Historical Geology | EASC 210 | |
| | EG-C59 | Sequence Stratigraphy | EASC 312 | |
| | EG-C60 | Stratigraphic Paleontology | NO EQUIVALENT COURSE | |
| | EG-C61 | Geochronology | NO EQUIVALENT COURSE | |
| Structure | EG-C62 | Global Tectonics | EASC 309 | |
| | EG-C63 | Tectonics | NO EQUIVALENT COURSE | |
| | EG-C64 | Structural Geology | EASC 404 | |