BACHELOR OF SCIENCE (BSc) GRADUATION CHECKLIST

* Environmental Science Major
  * Environmental Earth Systems Concentration

Name: _______________________________ Student #: ____________

Graduation Requirements

To graduate from the Environmental Science Program (Major), you must have:

- Approval in the Environmental Earth Systems Concentration
- Completed all of the required courses (see back)
- At least 120 units
- At least 44 upper division units (within the 120 units)
- Completed the WQB requirements below
- CGPA and UDCGPA must be 2.00 or higher
- Met SFU’s minimum residency requirements below

WQB Requirements*

- 6 units of Writing (“W”) including at least 3 units taken at SFU
  
  3 units of W  □ ________  
  3 units of 300- or 400-level W within major  □ ________

- 6 units of Quantitative “Q”  □ ________  □ ________

- 18 units of Designated Breadth “B”
  
  6 units of B-Soc (Social Science)  □ ________  □ ________
  6 units of B-Hum (Humanities)  □ ________  □ ________
  6 units of B-Sci (Science)  □ ________  □ ________

- 6 units of Undesignated Breadth  □ ________  □ ________

Notes: A minimum grade of C- is required to earn WQB unit.
A single course can count for W, Q, and B unit (however, only one B where two are possible).
See [http://www.sfu.ca/ugcr.html](http://www.sfu.ca/ugcr.html) for more details.
*Any required courses from this major may be used to fulfill these requirements.

Residency Requirements

At least half of the program’s total units and two thirds of the program’s total upper division units must be earned through SFU study.

Advising

Contact your academic advisor, Rebecca Ho. For advising hours and contact information, visit: [www.sfu.ca/fenv/advising](http://www.sfu.ca/fenv/advising).

Each student is responsible for ensuring that his or her academic choices meet the requirements for graduation. All requirements are outlined in the SFU Calendar. Advisors are available to provide guidance. However, the student has ultimate responsibility for compliance with and completion of the program and degree requirements and for observing regulations and deadlines.
Course requirements for the Environmental Science Major

- Environmental Earth Systems Concentration

### LOWER DIVISION REQUIREMENTS

Students complete all of:
- BISC 101-4-General Biology [B-Sci]
- BISC 102-4-General Biology [B-Sci]
- CHEM 121-4-General Chemistry and Laboratory I [Q, B-Sci]
- CHEM 122-2-General Chemistry II [Q]
- EASC 101-3-Dynamic Earth [B-Sci]
- EVSC 100-3-Introduction to Environmental Science [B-Sci]
- EVSC 201W-4-Environmental Science in Practice [W]
- GEOG 111-3-Earth Systems [B-Sci]

and one of:
- GEOG 100-3-Society, Space, Environment: Introducing Human Geography [B-Soc]
- REM 100-3-Global Change [B-Soc]

and two of:
- GEOG 213-3-Introduction to Geomorphology [Q, B-Sci]
- GEOG 214-3-Weather and Climate [Q]
- GEOG 215-3-Biogeography

and one of:
- GEOG 253-3-Introduction to Remote Sensing [Q, B-Sci]
- GEOG 255-3-Geographical Information Science I [Q]

and one of:
- MATH 151-3-Calculus I [Q]
- MATH 154-3-Calculus I for the Biological Sciences [Q]

and one of:
- MATH 152-3-Calculus II [Q]
- MATH 155-3-Calculus II for the Biological Sciences [Q]

and one of:
- PHYS 101-3-Physics for the Life Sciences I [Q, B-Sci]
- PHYS 120-3-Mechanics and Modern Physics [Q, B-Sci]

and one of:
- PHYS 102-3-Physics for the Life Sciences II [Q, B-Sci]
- PHYS 121-3-Optics, Electricity and Magnetism [Q, B-Sci]

and one of:
- STAT 201-3-Statistics for the Life Sciences [Q]
- STAT 270-3-Introduction to Probability and Statistics [Q]

### UPPER DIVISION REQUIREMENTS

Students complete all of:
- EVSC 300-3-Seminar in Environmental Science
- EVSC 305-3-Methods in Environmental Science
- EVSC 400-4-Environmental Science Capstone

and two of:
- ENV 320W-3-Ethics and the Environment [W]
- GEOG 389W-4-Nature and Society [W]
- REM 319-3-Environmental Law
- REM 321-4-Ecological Economics [B-Soc]
- REM 356W-3- Institutional Arrangements for Sustainable Environmental Management [W]

and six of, with at least one from the 400-division:
- BISC 414-3-Limnology
- EASC 209W-4-Environmental Geoscience [W]*
- EASC 304-3-Hydrogeology [Q]
- EASC 314-3-Principles of Glaciology [Q]
- GEOG 310-4-Physical Geography Field Course
- GEOG 311-4-Hydrology [Q]
- GEOG 313-4-River Geomorphology [Q]
- GEOG 314-4-The Climate System [Q]
- GEOG 315-4-World Ecosystems
- GEOG 316-4-Global Biogeochemical and Water Cycles [Q]
- GEOG 317-4-Soil Science
- GEOG 411-4-Advanced Hydrology [Q]
- GEOG 412W-4- Glacial Processes and Environments [W]
- GEOG 414-4-Climatic Change [Q]
- GEOG 417W-4-Advanced Soil Science [W]

and one of:
- BISC 309-3-Conservation Biology
- BISC 420-3-Community and Macroecology
- REM 311-3- Applied Ecology and Sustainable Environments [Q]
- REM 445-3-Environmental Risk Assessment
- REM 471-3-Forest Ecosystem Management

and one of:
- EASC 305-3- Quantitative Methods for the Earth Sciences
- GEOG 351-4-Multimedia Cartography [Q]
- GEOG 352-4-Spatial Analysis [Q]
- GEOG 353-4-Advanced Remote Sensing [Q]
- GEOG 355-4-Geographical Information Science II [Q]
- GEOG 356-4-3D Geovisualization
- REM 412-3-Environmental Modeling [Q]
- STAT 302-3-Analysis of Experimental and Observational Data [Q]

*Note: students who select this course may be required to complete additional upper division units to meet their degree requirements. Please see the Environmental Science Advisor.

### HONOURS REQUIREMENTS

In addition to the requirements above, to complete the Environmental Science Program [Honours] Environmental Earth Systems Concentration, you must:

Complete:
- EVSC 490-4-Environment Science Thesis
  or GEOG 491-4-Honours Essay

To graduate, you must have:
- Approval in the Honours Program
- Maintain a 3.00 CGPA and UDCGPA
- At least 120 units
- At least 40 upper division units (within the 120 units)
- Satisfy the WQB requirements
- Met SFU’s minimum residency requirements

## Lower Division Courses Common to All Concentrations:

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