

# ENSC-M-BSH

## MAJOR PROGRAM REQUIREMENTS

2020/2021

**Undergraduate Chair:** Dr. Stephen Brown, BioSciences Rm. 3130, email: [stephen.brown@chem.queensu.ca](mailto:stephen.brown@chem.queensu.ca)

The program consists of three parts, totaling 72.0 units as described below and 48.0 elective units to total 120.0 units.

**Students are advised to complete at least 15 units from the core and integrative science and supporting courses outlined below in their first year. Deferring 100-level courses to the last year is strongly discouraged.**

<b>Core Science &amp; Social Science Courses: 30 units</b>	<b>Completed</b>
3.0 units in BIOL 111(Ecology and the Environment) <b>or</b> BIOL 103 (Intro. Biology of Organisms)	
6.0 units from (GPHY 101 (Human Geography) <b>and</b> 102(Earth System Science)	
3.0 units in GEOL 104 (The Dynamic Earth) <b>or</b> GEOL 107 (History of Life)	
6.0 units in ENSC 201(Environmental Toxicology) <b>and</b> ENSC 301 (Environmental Assessment)	
3.0 units in ENSC 103 (Environment and Sustainability)	
3.0 units in ENSC 390 (Sustainability)	
6.0 units from ENSC 430 (Honours Projects in Env. Sustainability) <b>or</b> ENSC 501 <b>or</b> ENSC 502	
<b>Option Courses: 30 units</b>	
3.0 units in GEOL	
<b>15.0 units from ENSC Integrative Science (with a minimum of 9.0 at 300 level or above)</b>	3.0 –
BIOL 103(Introductory Biology of Organisms), BIOL 200(Diversity of Life), BIOL 212(Scientific Methods in Biology), BIOL 335(Limnology and Aquatic Ecology), ENSC 201(Toxicology), ENSC 301 (Environmental Assessment), ENSC 307(Marine Environmental Issues), ENSC 320 (Wildlife Issues in a Changing World), ENSC 407(Global Water Issues), ENSC 425(Ecotoxicology), ENSC 471(Env. Analysis Methods), ENSC 480(Special Topics in Env. Science), ENSC 481(Special Topics in Env. Science II), GEOL 106(Environmental Geology and Natural Hazards), GEOL 107(History of Life), GEOL 200(Oceanography), GPHY 207 (Principles of Biogeography), GPHY 209(Principles of Hydroclimatology), GPHY 304(Arctic and Periglacial Environments), GPHY 306 (Natural Env. Change), GPHY 310(Landscape Ecology), GPHY 312(Watershed Hydrology), GPHY 314(Climatic Change), GPHY 317(Soil, Environment & Society), GPHY 318(Advanced Biogeography), GPHY 319(Bioenergy & Biorefining)	3.0 – 3.0 – 3.0 – 3.0 – 3.0 –
<b>9.0 units from ENSC Interdisciplinary Social Science and Humanities:</b> CHEE 342 (Environmental Biotechnology), CLST 214 (Ancient Science), DEVS 220(Intro to Aboriginal Studies), DEVS 221(Topics in Aboriginal Studies), DEVS 250 (Global Environmental Transformations), ENSC 200(Environmental History), ENSC 290(Intro. To Ecological Economics) <b>or</b> ECON 290(Intro. to Env. Economics), ENSC 301 (Environmental Assessment), ENSC 305(Social Environments), ENSC 307(Marine Environmental Issues), ENSC 310(Environmental Policy), ENSC 315(Global Food Security, Agriculture & Environment), ENSC 320 (Wildlife Issues), ENSC321(Environmental Justice), ENSC 407(Global Water Issues), ENSC 420(Gender & Environments), ENSC 482(Special Topics in Environmental Studies), ENSC 483(Special Topics in Environmental Studies II), GPHY 336(Geography, Environment & Human Health), GPHY 339(Medical Geography), PHIL 203 (Science & Society), PHIL 293(Humans & the Natural World), PHIL 310(Development Ethics), PHIL 493(Ethics & the Environment), RELS 235(Religion & Environment)	3.0 – 3.0 – 3.0 –
<b>3.0 units from ENSC Interdisciplinary Humanities:</b> CLST 214 (Ancient Science); DEVS 220(Intro to Aboriginal Studies); DEVS 221(Topics in Aboriginal Studies); PHIL 203 (Science and Society); PHIL 293 (Humans and the Natural World); PHIL 310 (Development Ethics); PHIL 493 (Ethics and the Environment); RELS 235 (Religion and Environment)	
<b>Supporting Courses: 12 units</b>	
6.0 units in CHEM 112 <b>or</b> (CHEM 113 and CHEM 114)	
6.0 units in MATH <b>or</b> STAT at the 100-level or above	

