

Degree Level Expectations, Learning Outcomes, Indicators of Achievement and the Program Requirements that Support the Learning Outcomes

Expectations (general descriptors from OCAV)	Learning Outcomes (program specific)** This degree is awarded to students who demonstrate...	Indicators of Achievement As evidenced by...	Relevant Courses and academic requirements (requirements that contribute to the achievement of learning outcomes and degree expectations)
Depth and breadth of knowledge	A systematic understanding of knowledge of sustainability, which will support the student's future academic activities or professional practice with government, private or civil society sectors. This knowledge would include techniques, tools, perspectives, concepts, and/or theories from two or more disciplines and the ability to integrate this knowledge to advance the understanding of an environmental issue.	Positive feedback from supervisor and advisory committee on progress. Demonstrated depth of knowledge in sustainability as evidenced by a defensible well written MES thesis or report. The ability to field questions related to environmental sustainability.	ENSC 801 ENSC 802 In the course-based program, successful performance in 4 other half courses. In the research-based program, successful performance in 2 other half courses and a defensible well written MES thesis.
Research and scholarship	<p>For the research-based program: A conceptual understanding and methodological competence that enables a critical evaluation of current research and advanced research and scholarship in Sustainability. The unique aspect of this program is that the thesis research must encompass two or more disciplines (i.e. toxicology and sociology; geography and philosophy; geology, biology and chemistry; planning and epidemiology).</p> <p>For the course-based program: The ability to develop and support a sustained argument or a thorough review of an issue in Sustainability written as a report.</p> <p>Students graduating from this program will recognize and appreciate the value of combining research in different disciplines to address problems related to environmental sustainability.</p>	<p>Successful feedback from seminar presentations and mandatory advisory meetings.</p> <p>For the research-based program: It is expected that students will have the ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the sustainability, and to adjust their research design or methodology in the light of unforeseen problems. It is expected that the thesis research in sustainability will lead to original research, or other advanced scholarship, which may merit publication. Positive feedback from supervisor and advisory committee on progress.</p> <p>For the course-based program: Successful completion of course work in addition to a well written report covering</p>	ENSC 801 ENSC 802 In the course-based program, successful performance in 4 other half courses, literature reviews and a well written report. In the research-based program, successful performance in 2 other half courses and a defensible well written MES thesis.

		a chosen topic in Sustainability.	
Application of Knowledge	<p>For the research-based program: Students will be required to make informed judgments on complex issues in the area of sustainability. Through the application of knowledge, graduates will have built on their science/social backgrounds and will have incorporated methods from a variety of disciplines (politics, sociology, geography etc.) to ensure their results are meaningful to society and contribute to solutions to environmental challenges we face.</p> <p>For the course-based program: The ability to develop and support a sustained argument or a thorough review of an issue in Sustainability written as a report.</p>	<p>Successful performance in courses. Students will be encouraged to translate their research findings for use by decision making in the form of white briefs and/or other types of publications.</p>	<p>ENSC 801 ENSC 802 In the course based program, successful performance in 4 other half courses, literature reviews and a well written report. In the research-based program: Thesis research and successful performance in 2 other half courses.</p>
Professional capacity/autonomy	<p>The qualities and transferable skills necessary for employment training. These include: initiative, responsibility, decision-making. The intellectual independence required for continuing professional development. The ethical behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research. The ability to appreciate the broader implications of applying knowledge to issues of Sustainability.</p>	<p>Successful research/project design and management. Successful presentation of research/project results and interpretation.</p>	<p>Mentoring by supervisor, colleagues and other faculty members. Although not required we encourage students to participate in “Expanding Horizons” and serve as student representatives on various committees.</p>
Communication Skills	<p>The ability to communicate the concept of “sustainability” to undergraduates, colleagues and supervisors. The ability to communicate their findings to experts in the area of sustainability via conference presentations and/or peer review publications. Traditional journals such as <i>Environmental Monitoring and Assessment</i>, and <i>Arctic</i> are accepting</p>	<p>Positive feedback from supervisor and advisory committee on quality of required presentations (including those in ENSC801 and ENSC802). Research based: Successful performance during oral MES defense.</p>	<p>Required student presentations in ENSC-801, ENSC-802 and other courses. Research-based program: MES thesis research and defense. Course-based program: Written report.</p>

	<p>environmental studies research and new journals have emerged to service the needs of environmental studies researchers such as <i>Local Environment</i>, and <i>Society and Environment</i>. Less traditional work will include art, websites, blogs, video and other social media which examine the social aspects sustainability. For example, a previous SES MES student sculptured human hands and displayed them on Wolf Island as an expression of the emotions involved in the sustainability issues surrounding the use of wind turbines for energy generation.</p>		
Awareness of limits of knowledge	<p>Students will be expected to understand the limitations of their research methods, current literature and interpretation of results. This will occur through the student's understanding of the assumptions upon which their research is based and accepting that there are always different ways of understanding based on the perspectives we bring to research. A clear example of this issue involves research in Canada's north (an area of increasing interest among our faculty). Graduates will understand that their research, if based on western science, may be viewed by First Nation and aboriginal groups with scepticism, as these communities rely on a different knowledge system based on oral and traditional knowledge.</p>	<p>Reasoned response to questioning during presentations, and, for research-based students, the MES oral examinations that demonstrate a knowledge and understanding of research limitations and of the potential contributions of other interpretations, methods, and disciplines.</p>	<p>ENSC 801 ENSC 802 In the course-based program, successful performance in 4 other half courses, literature reviews and a well written report. In the research-based program, successful performance in 2 other half courses, a well conceived, researched and written thesis, which is successfully defended in an oral defense. Research Day presentations ENSC seminar presentation</p>

* Articulate degree level expectations that are unique to the degree program. For programs that are also part of a collaborative program, specific DLEs must be added.

** General learning outcomes associated with Master's and doctoral degree level expectations can be found on the attached pages. Please use these as guidelines; programs should define their own learning outcomes.

Resources on degree level expectations and learning outcomes can be found at: <http://www.queensu.ca/sgs/facultystaff/quqap/resources.html> or speak with your SGS Associate Dean (David Rappaport: dr2@queensu.ca; Sandra den Otter: denotter@queensu.ca)

