

## ENVIRONMENTAL MANAGEMENT SYSTEMS COURSE OUTLINE ENVR 3350

<b>COURSE</b>	Environmental Management Systems with Perspectives on EMS Auditing Fall 2019	
<b>INSTRUCTORS</b>	Mary Rezai Ph: 204-781-1622 email: Mary.Rezai@umanitoba.ca	Sheldon McLeod Ph: 204-250-9175 email slmcleod@mymts.net
<b>INSTRUCTOR AVAILABILITY</b>	Instructors are not located on campus. However, instructors will respond quickly to emails, texts or telephone calls and may be able, in some instances, to make arrangements to meet.	
<b>CONTRIBUTORS</b>	Various guest presenters identified during the course	
<b>COURSE OBJECTIVES AND GENERAL DESCRIPTION</b>	<p>This course will provide an overview of current practices pertaining to the development, implementation and maintenance of Environmental Management Systems (EMS) in an organization. In order to achieve this, an applied knowledge of ISO 14001:2015, its application to various organizations, and insights into the auditing process will be presented and discussed. Learning outcomes:</p> <p>Knowledge:</p> <ul style="list-style-type: none"> <li>• Understanding of the value of international standards</li> <li>• Understanding the requirements of ISO 14001:2015</li> <li>• Understanding the purpose and context of EMS auditing</li> </ul> <p>Skills:</p> <ul style="list-style-type: none"> <li>• Identify components in various environmental management systems</li> <li>• Applying ISO 14001:2015 in a realistic setting</li> <li>• Developing audit techniques and managing audit relationships</li> <li>• Working independently</li> <li>• Working collaboratively</li> </ul> <p>Behaviours:</p> <ul style="list-style-type: none"> <li>• Working with people with whom there has been no previous acquaintance</li> <li>• Thinking and working independently</li> </ul>	
<b>LECTURE LOCATION</b>	St John's College, Class 114	
<b>LECTURE TIMES</b>	6:00 p.m. to 9:00 p.m. on Thursdays during the fall term beginning on September 5, 2019. There will be some homework between sessions but the primary focus will be on small group collaboration in the design and development of the major elements of an environmental management system (EMS) for a realistic situation.	
<b>LECTURE FORMAT</b>	A mix of lectures, large group discussion, small group and individual work. Based on the topic, guest lecturers from the industry will share their experience and contribute to class discussions.	
<b>Field Trip</b>	A half-day field trip to an organization with an operating EMS is planned.	

	This will replace one of the evening sessions. The timing will be discussed with the class before being finalized.
<b>COURSE MATERIALS</b>	<p>Environmental Management Systems and Environmental Management System Auditing Course Manual by the instructors. This manual will be provided in electronic, read-only format. Students will need access to it throughout the course.</p> <p>A copy of ISO 14001:2015 will be on reserve in the Sciences and Technology Library.</p>
<b>ATTENDANCE</b>	Attendance is highly advisable due to the emphasis on the in-class small group work and general class engagement and discussion. Short-term exceptions may be granted for compassionate or medical grounds.
<b>ASSIGNMENTS</b>	Students will work in assigned small groups and individually to develop the basics of an EMS for an organization which has significant impacts on the environment. Students will be provided basic information about the organization, its operation and its environmental setting.
<b>MID-TERM EXAM</b>	NA
<b>FINAL EXAM</b>	There will be a final exam held during the December exam period. The date will be identified during the term and students will be informed as soon as the instructors are made aware of the exam schedule.
<b>MARK BREAKDOWN</b>	<p>Class participation - comprised of attendance and engagement = 10%</p> <p>Two quizzes – 5% for each of two quizzes = 10%</p> <p>Field trip participation and engagement – 5%</p> <p>Major Assignment (EMS for selected organization) - 40%</p> <ul style="list-style-type: none"> <li>• Portion which is group work – 20%</li> <li>• Portion which is individual work – 20%</li> </ul> <p>Final exam - 35%</p>
<b>GRADING</b>	<p>90 – 100% - A+</p> <p>80 – 89% - A</p> <p>75 – 79% - B+</p> <p>70 – 74% - B</p> <p>65 – 69% - C+</p> <p>60 – 64% - C</p> <p>50 – 59% - D</p> <p>&lt; 50% - F</p>
<b>ACADEMIC CONDUCT</b>	Students should acquaint themselves with the University's policy on plagiarism and cheating and examination impersonation (see University of Manitoba' General calendar). The copying of another student's assignment or another instructor's answer sheet from a previous year or the submission of the same material for two or more courses is plagiarism. Plagiarism and other forms of cheating are prohibited. The full definition of plagiarism and the penalties associated with it are outlined in the General Calendar. If your submitted assignment contains material you have copied from another source, you must give proper credit to that source.

<b>POLICY REGARDING LATE ASSIGNMENTS</b>	Every student is required to submit all of the assignments. Failure to submit an assignment will result in a mark of zero on that assignment. Assignments submitted late will not be accepted without special and advance permission.		
<b>SCHEDULE AND ORDER OF MATERIAL TO BE COVERED</b>	DATE	FOCUS	KEY ITEMS
	5 Sept.	Course Structure & Objectives Course Project EMS Introduction	PDCA Cycle
	12 Sept.	Clause 4 Guest Speaker from University of Manitoba	Group Project work Discussion Context of the Organization
	19 Sept.	Clause 5 Guest Speaker from Manitoba Hydro	Environmental Policy Leadership
	26 Sep.	Clause 6 Guest Speaker from Manitoba Hydro	Touch back on Interested Parties, Environmental Aspects
	3 Oct.	Clause 6 Cont'd	Compliance Obligations, Environmental Objectives
	10 Oct.	Clause 7	<b>Quiz</b> Resources, Awareness, Competency Diagram
	17 Oct.	Clause 7 Cont'd	External & Internal communication, Documented Information
	24 Oct.	Clause 8 & Clause 9	Operational Control & Performance Evaluation
	31 Oct.	Clause 9 Cont'd Guest Speaker from Manitoba Hydro	Auditing Process & Techniques Preparation for Site Visit

	7 Nov.	Site Visit Waverly Service Center Manitoba Hydro	Implementing Auditing Techniques
	Nov. 12-15 Study week		
	21 Nov.	Clause 9 Cont'd	<b>Quiz</b> Management Review
	28 Nov.	Clause 10	Nonconformity & Corrective Action, Continual Improvement, Revisions to the 2015 Standard
	5 Dec.	Course Review Class Expectations Review	Project work