



COURSE OUTLINE: ESA207 - ENVIRO. MGMT SYSTEMS

Prepared: Jaime Graham

Approved: Carolyn Hepburn, Dean, Indigenous Studies, Academic Upgrading, Natural Environment, and Media and Design

Course Code: Title	ESA207: ENVIRONMENTAL MANAGEMENT SYSTEMS
Program Number: Name	5255: ENV. SUSTAINABILITY
Department:	NATURAL RESOURCES PRG
Academic Year:	2023-2024
Course Description:	This course introduces students to the concept of environmental management systems and their role in reducing environmental impacts in business operations. This course provides an overview of EMS models including the ISO 14001 standard, and how companies adopt and implement an EMS. Additionally, students will learn about the auditing process as a management tool for environmental performance via EMS auditing standards such as ISO 19011.
Total Credits:	3
Hours/Week:	3
Total Hours:	42
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course:	5255 - ENV. SUSTAINABILITY
Please refer to program web page for a complete listing of program outcomes where applicable.	VLO 3 Implement environmental audit standards, including the Environmental Assessment (EA) process to meet legal requirements across municipal, provincial and federal jurisdictions.
	VLO 6 Interpret the effects of various environmental and climate impacts on plant, animal and human health.
	VLO 7 Develop and implement a model to Build community engagement and capacity to achieve the desired organizational outcomes.
	VLO 8 Apply principles of project management and leadership to complete projects on time and within scope.
	VLO 9 Develop and implement an interdisciplinary perspective to evaluate goals, objectives, and strategies for approaching environmental problems.
VLO 10 Apply principles and practices of community and industry development to increase resiliency, innovation and transformation toward greater sustainability.	
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
	EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.
	EES 3 Execute mathematical operations accurately.
	EES 4 Apply a systematic approach to solve problems.



	<p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>												
Course Evaluation:	<p>Passing Grade: 50%,</p> <p>A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.</p>												
Other Course Evaluation & Assessment Requirements:	<p>Academic success is directly linked to attendance. Missing more than 1/3 of the course hours in a semester shall result in an 'F' Grade for the course.</p>												
Books and Required Resources:	<p>1) ISO 14001: 2015, Environmental management systems - Requirements with guidance for use by International Standards Organization The standards have been procured for student use via the proper licensing protocols and will be available through the course LMS site.</p> <p>2) ISO 19011: 2018, Guidelines for auditing management systems by International Standards Organization The standards have been procured for student use via the proper licensing protocols and will be available through the course LMS site.</p>												
Course Outcomes and Learning Objectives:	<table border="1"> <thead> <tr> <th>Course Outcome 1</th> <th>Learning Objectives for Course Outcome 1</th> </tr> </thead> <tbody> <tr> <td>Understand the fundamentals of environmental management.</td> <td> 1.1 Define environmental management and explain its significance for organizations. 1.2 Identify the benefits of implementing an Environmental Management System. 1.3 Demonstrate the requirements and elements of an Environmental Management System. 1.4 Review the ISO 14001 model, and its purpose, scope, and benefits. </td> </tr> <tr> <th>Course Outcome 2</th> <th>Learning Objectives for Course Outcome 2</th> </tr> <tr> <td>Demonstrate steps in planning and designing an EMS (tools and techniques)</td> <td> 2.1 Identify and assess environmental aspects and impacts and legal requirements associated with organizational activities, products, and services. 2.2 Identify and list environmental objectives, targets, and programs. 2.3 Compile roles and responsibilities. </td> </tr> <tr> <th>Course Outcome 3</th> <th>Learning Objectives for Course Outcome 3</th> </tr> <tr> <td>Develop and implement an</td> <td>3.1 Develop a system for managing EMS documentation,</td> </tr> </tbody> </table>	Course Outcome 1	Learning Objectives for Course Outcome 1	Understand the fundamentals of environmental management.	1.1 Define environmental management and explain its significance for organizations. 1.2 Identify the benefits of implementing an Environmental Management System. 1.3 Demonstrate the requirements and elements of an Environmental Management System. 1.4 Review the ISO 14001 model, and its purpose, scope, and benefits.	Course Outcome 2	Learning Objectives for Course Outcome 2	Demonstrate steps in planning and designing an EMS (tools and techniques)	2.1 Identify and assess environmental aspects and impacts and legal requirements associated with organizational activities, products, and services. 2.2 Identify and list environmental objectives, targets, and programs. 2.3 Compile roles and responsibilities.	Course Outcome 3	Learning Objectives for Course Outcome 3	Develop and implement an	3.1 Develop a system for managing EMS documentation,
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Develop and implement an	3.1 Develop a system for managing EMS documentation,												

	EMS.	including version control, access, and retention. 3.2 Examine the necessary documentation for an EMS, including policy statements, procedures, work instructions, and records. 3.3 Develop an internal stakeholder engagement plan for communications, training, sign off and management review.
	Course Outcome 4	Learning Objectives for Course Outcome 4
	Demonstrate steps in auditing management systems.	4.1 Describe auditing concepts, principles, and skills. 4.2 Demonstrate the audit planning process, and roles and responsibilities. 4.3 Review the purpose, scope, and benefits of the ISO 19011 standard.
	Course Outcome 5	Learning Objectives for Course Outcome 5
	Evaluate environmental performance.	5.1 Create systems for monitoring and measuring key performance indicators to track progress towards objectives. 5.2 Plan internal audits to assess the effectiveness of the EMS and identify areas for improvement. 5.3 Develop strategies for effectively communicating environmental performance to stakeholders. 5.4 Apply the Plan-Do-Check-Act (PDCA) cycle to continuously improve the EMS and enhance environmental performance (correct nonconformities).

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Articles and Case Discussions	20%
Assignment	35%
Quizzes and Exams	45%

Date: November 30, 2023

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.