Sustainability in Energy®
Micro-Credential
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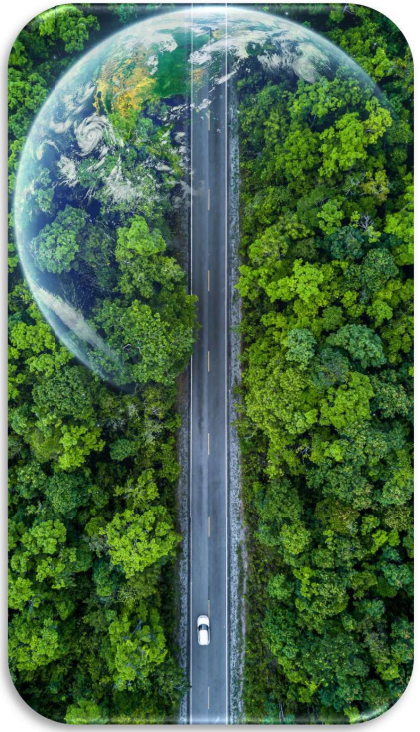
Sustainability in Energy®
Micro-Credential Syllabus

Micro-Credential curriculum

The curriculum addresses key sustainability and ESG knowledge challenges faced by the energy industry. The program was based on extensive industry and stakeholder input.



Curriculum (4 focus areas / 12 courses)

I. Sustainability in the Energy Industry
   1. Energy and Sustainability
   2. Measuring Performance
   3. Sustainability Reporting Fundamentals
   4. Regulatory Trends & Environmental Legislation in Canada

II. Environment
   1. Climate Change Risks & Opportunities
   2. Emissions Sources & Measurement
   3. Emissions Reduction Technologies
   4. Water Management
   5. Land & Air Quality Management

III. Social
   1. Social Practices
   2. Indigenous Rightsholders in Canada

IV. Governance
   1. Corporate Governance

Total time commitment:

- Approximately 35 hours

Format:

- Self-paced eLearning

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Curriculum details

Topic	Course	Learning Objectives
I. Sustainability in the Energy Industry	1. Energy and Sustainability	• Examine energy system complexities that arise related to the energy trilemma (sustainability/security/affordability). • Explore the role of professionals in a rapidly evolving industry and identify skills that are helpful to stay current in the energy industry. • Understand the key concepts of sustainability and global goals that give direction to sustainable development.
	2. Measuring Performance	• Relate comprehensive data measurements to improved operational responsibility, increased investor confidence, and reduced regulatory risk. • Understand the key business term ESG as it relates to operationalizing responsible business practice and increasing investor confidence. • Identify various types of material non-financial disclosures, categorized into mandatory and voluntary disclosure types.
	3. Sustainability Reporting Fundamentals	• Recognize key considerations for building a comprehensive sustainability narrative, including accuracy, balance, comparability, and credibility. • Compare and understand defining features of common sustainability and ESG reporting standards, including GRI, SASB, CDP, TCFD, and UNSDG. • Understand sustainability reporting communication and how these translate to fit-for-purpose communication methods (e.g., data sheets, website, dashboards, reports).
	4. Regulatory Trends & Environmental Legislation in Canada	• Differentiate between legislation and regulation as it relates to enacting energy law. • Describe the role of the regulator at the federal and provincial level. Explain how government departments and regulators interact. • Explore various policy instruments and regulatory approaches, like carrots and sticks, and market-based mechanisms.

Curriculum details – continued

Topic	Course	Learning Objectives
II. Environment	1. Climate Change Risks & Opportunities	• Examine climate change global effects, effects on industry, and effects on Canada. • Identify tensions in priorities as governments, industry, and society address effects of climate change. • Discuss climate change opportunities in the categories of technological, economic, and social opportunities.
	2. Emissions Sources & Measurement	• Describe the environmental effects and global warming potential (GWP) of common greenhouse gases (GHGs). • Understand the GHG emissions profile of the energy industry and examine emissions reporting requirements in Canada. • Identify the common standards for measuring GHG emissions and differentiate between direct and indirect GHG emissions (Scope 1, 2, 3 emissions).
	3. Emissions Reduction Technologies	• Distinguish between emissions reduction and emissions elimination, identifying technologies and approaches within each category. • Discuss emissions reduction 'low hanging fruit' technologies, including addressing fugitive emissions, process optimization, and fuel switching. • Discuss emissions elimination technologies, including electrification of energy, carbon capture, and low-carbon fuels. • Examine systems-thinking approaches for reducing emissions, including circular economy and collaboration networks.

Curriculum details – continued

Topic	Course	Learning Objectives
II. Environment	4. Water Management	• Describe the critical linkage between water, climate, and climate change. Recognize key challenges resulting from water scarcity. • Define common water management measurements, including water withdrawals, consumption, and intensity. • Explore approaches to managing oil and gas sector water use. Understand industry sub-sector water demands and management strategies. • Recognize key approaches to water management and water-use reduction, including conservation, water recycling, water alternatives, and safe disposal of produced water.
	5. Land & Air Quality Management	• Identify key land and air quality management concerns for the energy sector, including land disturbance, tracking biodiversity, hydrocarbon spill prevention, and asset retirement. • Recognize best practice land and air quality management metrics, including area of land disturbance, biodiversity indicator species health, and volumes of hydrocarbon spills and recoveries. • Understand available options for land and air quality management approaches available, including project life cycle and cumulative effects land use planning, and planned management of retired assets.

Curriculum details – continued

Topic	Course	Learning Objectives
III. Social	1. Social Practices	• Identify key factors that have advanced the safety culture of the Canadian energy industry, including guidelines prepared by industry-wide associations, management system audits, and occupational health & safety legislation. • Relate diversity, equity and inclusion (DEI) to building organizational resilience and innovation. Examine the accompanying disadvantages of potential organizational discord and social complexity. • Examine areas of social impact internal and external to energy companies, including employee development, community engagement, social investment, and job creation.
	2. Indigenous Rightsholders in Canada	• Define and describe four sources of Indigenous rights: inherent rights, constitutional rights, treaty rights, and international rights. • Recognize key elements of Numbered Treaties, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and the concept of Free, Prior, and Informed Consent (FPIC). • Understand the importance of both formal and informal systems of consultation and engagement as well as the legal obligations involved in duty to consult. • Examine how industry is involved in economic reconciliation with Indigenous communities and define key business concepts, including impact benefits agreements, capacity building, Indigenous procurement, and equity partnerships.
IV. Governance	1. Corporate Governance	• Define the role and function of corporate governance, with emphasis on best practices for strong governance. • Describe how risk assessment leads to an expanding definition of materiality. Recognize how shareholder and stakeholder primacy both play a role in organizational decision making. • Identify common guiding principles of responsible business conduct and the organizations involved in providing thought leadership on this topic.

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