

Dalhousie 2013/2014 College of Continuing Education courses that addresses sustainability

Introduction

This inventory was developed as a result of STARS requirement as Dalhousie is submitting its 2014 STARS report. The method used to develop the inventory is based on STARS definition of sustainability courses and courses that include sustainability.

Method

Courses listed in the [College of Continuing Education](#) was assessed according to STARS definitions. Courses identified either meet the definition of sustainability course or course that include sustainability. The course inventory was verified by the College of Continuing Education.

Definition

Sustainability course: Sustainability courses are courses in which the primary and explicit focus is on sustainability and/or on understanding or solving one or more major sustainability challenge

Course that include sustainability: A course that includes sustainability is primarily focused on a topic other than sustainability, but incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability issues throughout the course.

Course Inventory

1. *Designing an Environmental Management System based on ISO 14001:2004 and 19011:2011* - leads to development by participants of an environmental management system for a small organization
2. *Auditing Environmental and OH&S Management Systems* - The content and course materials provide a balanced series of presentations and exercises to explain and demonstrate what a management system is, and how to plan for and conduct environmental and occupational health and safety audits
3. *Environmental regulations for managers* - To gain an understanding of the environmental regulatory regime within which individuals, business and the government operates. To examine and work through examples of practical day-to-day environmental issues so that participants are equipped with the necessary regulatory background and knowledge in order to efficiently and effectively resolve environmental issues.
4. *Risk and loss control management:* This course provides an overview of mechanisms for risk-based decision-making and to demonstrate its application in the fields of Health, Safety, and Environment.

5. *Environmental inspections and investigation*: participants are provided with a general understanding of the relevant environmental laws and how enforcement provisions and protocols apply to them or their organization.
6. *Exposure assessment*: This course provides participants with a brief, but essential, introduction to how people react to environmental exposures. This introduction is followed by an orientation to exposure assessment theory to provide the participant with a sense of data quality in exposure assessments.
7. *Fundamentals of environmental chemistry*: This course provides the participant with knowledge of the fundamentals of chemistry as applied to environmental investigations, environmental assessments, chemical calculations, and interpretation of environmental data and reports.
8. *Indoor air quality*: The course provides participants with an introduction to the indoor environment, various contaminants of concern and associated illnesses, investigation procedures, and interpretation methods.
9. *Management of environmental site assessment*: the course focuses on the CSA/CCME phased approach and various provincial guidelines for management of contaminated sites as well as remediation and site closure.
10. *Occupational hygiene for managers*: This course provides participants with an overview of occupational hygiene and its role in workplace health and safety.
11. *Radon measurement*: The course focuses on Health Canada's *Guide for Radon Measurement in Residential Dwellings* and contrasts the Guide with the U.S. Environmental Protection Agency's (EPA) radon measurement protocols.
12. *Radon mitigation*: The course focuses on Health Canada' reducing radon levels in existing homes: a Canadian guide for professional contractors, American Society of Testing and Materials Standards on Radon Mitigation (E-2121) and prevention (E-1465), Canada's 2010 National Building Code radon provisions as well as the U.S. EPA's *Radon Mitigation Standards*.
13. *Environmental impact assessment*: focuses on assessing the potential impacts of proposed projects on the environment.
14. *Heating inspection I*: This course covers various installed heating systems including gas and oil furnaces and hot water boilers. The focus is on the inspector's ability to recognize the energy source, condition, and safety concerns as well as inspecting the actual heating equipment. In particular there is content relating to high efficiency HVAC systems directed towards energy consumption
15. *Heating inspection II*: This course covers flues and chimneys, vent systems, fireplaces and other wood heating appliances and steam and electric heating systems. In particular there is content relating to high efficiency HVAC systems directed towards energy consumption.
16. *Insulation and interior inspection*: This course covers the following components of insulation and interior within a residential structure: thermal insulation, vapour retarders, ventilation systems of attics, crawl spaces, roof assemblies and interior spaces, walls, ceilings, floors, doors and windows, steps, stairways, landings and railings, installed countertops and cabinets, garage doors and door operators.

17. *Air conditioning and heat pump inspection*: This course covers how to inspect and identify the type, material, condition, safety concerns of cooling systems, cooling distribution systems and residential heat pumps.
18. *Sustainable communities*: provides students with a brief introduction to land use planning theory, law and processes. The course will focus on such concepts as planning communities around environmental sustainability and social equity.
19. *Occupational health and safety law and regulation*: To provide participants with a good understanding of occupational health & safety legislation and regulations applicable in Atlantic Canada and the federal jurisdiction.
20. *Designing and Implementing an OH&S Program and Establishing a Safety Culture*: This course addresses the key components of and the tools required for preparing, implementing and managing an effective Occupational Health and Safety Program as required by the Occupational Health and Safety Act.
21. *Addressing Complex Employee Behaviours in the Workplace*: This course examines the concepts of complex behaviours as they relate to the design and implementation of workplace safety and health initiatives
22. *Accident investigation*: This four-day course will provide intense instruction on accidents investigations, including: due diligence: what is the law? exploring accident theory, investigation methodology, root cause analysis, role of the OHS regulator during an investigation, scene protection and examination, scene photographs and sketch, note-taking, interviewing techniques, obtaining witness statements, report writing and impact of a workplace accident.
23. *Citizen engagement and consultation*: examines approach to promoting effective public engagement.
24. *Organizational behaviour and leadership*: The course focuses on management in the public sector, theories of leadership, staff roles and relationships, the structures and culture of organizations, notions of motivation in the public sector, the empowerment of staff, and organizational change.
25. *Organizational design and management*: addresses systems management and the structure and design of organizations, with an emphasis on public sector organizations. Key concepts include management and managing (management fundamentals, culture, ethics, environment, decision- making, and conflict), planning (strategic management, systems thinking), organizing (theory, structure, design, technologies and change) and controlling (performance management, measurement and effectiveness).
26. *Introduction to marine renewable energy: tidal power*: to give a basic understanding of the marine renewable energy tidal power systems that are being developed and deployed in Canada, earn the technical challenges ahead in this industry and familiarize participants with environmental and socio-economic issues.
27. *Facilitation skills for technical professionals*: effective collaborative efforts are purposeful, well-planned, well-facilitated, and well followed-up. This course provides participants with the guidelines, processes, practical tools, and practice necessary to design and facilitate effective, results-oriented meetings.

28. *National energy code for building – tools for compliance*: This course will give participants an overview of the National Energy Code Building and how to meet the requirements using all three path options: *prescriptive, trade-off and performance*.
29. *Power generation: gas turbines, co-generation, combined cycle plants, wind power generation and solar power*: This course covers all aspects of steam power plants, gas turbines, co-generation, combined cycle plants, wind and solar power generating plants, as well as all the components of these types of power plants such as: compressors, gas and steam turbines, heat recovery steam generators, de-aerators, condensers, lubricating systems, instrumentation, control systems, transformers, and generators.
30. *Ultra supercritical steam power plants*: this course covers all aspects of ultra-supercritical steam power plants and advanced ultra-supercritical power plants.
31. *Risk assessment and treatment*: this course focuses on risk assessment and treatment. It focuses on theories of accident causation, root cause analysis, discusses the application of various strategies for treating risks and how to motivate risk treatment within an organization.
32. *Risk management principles and practices*: this course focuses on the principles and practices of risk management and understanding hazard risk, operational, financial, and strategic risk concepts.