

Fall 2011

Environmental Management  
Occupational Health & Safety  
Ergonomics  
Risk Management  
Radon Training



Certificate Programs  
Seminars

Continuing Technical Education  
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for professional development



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# Certificate Programs

## Environmental Management

This program provides a solid understanding of environmental management using engineering principles combined with environmental and human health hazard considerations. The program has been designed mainly for the part-time learner who is currently employed in the field. The program places special emphasis on practical applications. Graduates of this program will be valuable to employers because they will have the added advantage of having been trained to assume management responsibilities for environmental matters. Being able to function competently and productively in dual roles, graduates of the Environmental Management Program fill an important gap in the labour market. Successful completion of the certificate program is a testimony to the participant's having attained proficiency in the interdisciplinary field of environmental management.

## Occupational Health & Safety Management

This program has been designed for individuals who are currently or will be responsible for the design and coordination of health and safety plans for their organization. Graduates of the program will have acquired the systems necessary to manage and control loss, to identify and protect against potential liabilities and to ensure compliance with existing federal and provincial regulatory requirements. The increasing need to prove due diligence in preventing injury and disease puts great importance on the establishment of an effective occupational health and safety plan. This program provides the necessary knowledge and skills to develop and implement an effective occupational health and safety plan for any organization.



Board of Canadian Registered  
Safety Professionals  
(BCRSP) Approved  
[www.bcrsp.ca](http://www.bcrsp.ca)

## Ergonomic Program Management

This program has been created for individuals who are responsible for an occupational health and safety program and/or the creation and coordination of an ergonomics program for their company or organization. Graduates of the program will have acquired the skills necessary to: (i) identify ergonomic risk factors in their workplace; (ii) incorporate ergonomics into their occupational health and safety program; (iii) develop an ergonomic program appropriate for their workplace; (iv) cost justify ergonomic initiatives to management; (v) assess the effectiveness of ergonomic interventions to improve their company's or organization's bottom line; and (vi) ensure compliance of existing federal and provincial regulatory requirements. The increasing need for due diligence in preventing accidents and injury while demonstrating financial benefits in doing so puts great importance on the establishment of an effective ergonomics program.



Detailed certificate descriptions  
are available at [www.cte.dal.ca](http://www.cte.dal.ca)

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## Designing an Environmental Management System Based on ISO 14001: 2004 and ISO 19011

**Date:** Sep 12-16, 2011      **Time:** 8:30 am - 4:00 pm  
**Instructor:** John Underwood      **Cost:** \$1495      **CEUs:** 3.5  
**Course# :** 6222

Many organizations must daily be prepared for a variety of predictable and unexpected environmental risks which can lead to environmental impacts. Failure to properly address these liabilities can result in substantial fines or even jail. Provincial and federal legislation does provide for a defense of due diligence. A well-structured, implemented and maintained **Environmental Management System (EMS)** is a key to strong due diligence. More than that, it can bring value to the organization through improved effectiveness and pollution prevention. It may even be a requirement for international trade.

ISO 14001 is accepted as the international standard for environmental management systems and well over 100,000 certifications have been registered throughout the world.

*Designing an Environmental Management System Based on ISO 14001* is a 35-hour hands-on course that leads to development by participants of an environmental management system for a small organization.

The class uses the latest version of **ISO 14001: Environmental management systems - Requirements with guidance for use**, and also draws from key elements of **ISO 19011: Guidelines for quality and/or environmental management systems auditing**.

The class is structured with a careful balance of instruction and in-class assignments so that small teams daily assemble important elements of their EMS and present their results to the class. A final exercise involves conducting a management system review of another team's EMS. At the conclusion of the project, participants will have developed the main elements of an environmental management system manual according to ISO 14001:2004 criteria. The component parts of these manual are directly applicable to the diverse workplace environments of class participants.

## Environmental Regulations for Managers

**Date:** Oct 18-20, 2011      **Time:** 8:30 am - 4:00 pm  
**Instructor:** Lisa Mitchell      **Cost:** \$1295      **CEUs:** 2.1  
**Course# :** 6183

This three day course will cover the most significant practical issues that a manager could expect to encounter on a day-to-day basis. Participants will apply the regulatory regime to examples of practical day-to-day environmental issues. With knowledge of the regulatory regime, the manager will be equipped with one of the essential tools for managing issues which have an environmental component. Topics include Federal regulation (toxics, fisheries, endangered species) Canadian Environmental Protection Act, Fisheries Act, Species at Risk Act; Canadian Environmental

Assessment Act; Provincial regulations: Nova Scotia Environment Act; Issues related to Regulating Contaminated Sites; Enforcement and Compliance both Federal and Provincial; Regulatory Offences and Defences; and Environmental Impact Assessment. This course is directed towards individuals or managers in public and private enterprise including middle to senior government personnel, managers from lending institutions, representatives of community and non-governmental organizations, oil and gas industry, engineers, scientists and consultants, municipal officials and lawyers who may not practice full-time in environmental matters.

## Management of Environmental Site Assessment

**Date:** Nov 22-25, 2011      **Time:** 8:30 am - 4:00 pm  
**Instructors:** Peter Oram      **Cost:** \$1395      **CEUs:** 2.8  
                          Kevin Emenau      **Course#:** 6231

This course will closely follow the project stages. It will focus on the CSA/CCME phased approach and various provincial guidelines for management of contaminated sites as well as remediation and site closure. The course will include a mock Phase I assessment of a facility. Throughout the course a case study approach will be used



both in lectures and in group work which will integrate the phased ESA approach and site remediation. This course is directed to Environmental managers and engineers, technologists, environmental scientists, geologists, regulatory personnel, compliance officers and auditors.

## Designing and Implementing an OH&S Program and Establishing a Safety Culture

**Date:** Sep 19-22, 2011      **Time:** 8:30 am - 4:00 pm  
**Instructor:** John Cameron      **Cost:** \$1395      **CEUs:** 2.8  
**Course# :** 6173

This four-day 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. The presentations address the theoretical components, legal requirements, as well as a strong emphasis on strategies for effective implementation of a safety program.

Participants gain the necessary background, understanding and innovative tools to prepare and implement an effective Occupational Health and Safety Program. An effective OH&S Program will help your organization reduce the incredible costs, in terms of people and dollars, of injuries and illness in the workplace

**BCRSP Approved Course**

## Accident Investigation

**Date:** Nov 14-17, 2011 **Time:** 8:30 am - 4:00 pm  
**Instructor:** Vince Garnier **Cost:** \$1395 **CEUs:** 2.8  
**Course# :** 6399

This course will provide intense instruction on accident investigations, including: • Due Diligence: OHS Law and Accident Investigations, • Accident (Causation) Theory, • Hazards and Risks, • Investigation Methodology, • Role of JOHSC Representatives, • Scene Protection &

Examination, • Note-Taking, • Scene Photographs and Sketch, • Conducting detailed interviews, • Obtaining witness statements, • Collecting, Preserving & Analyzing Physical Evidence, • Report Writing, • Evaluating the Lessons Learned & Due Diligence. Participants will gain the necessary background, understanding and innovative methods required to conduct a thorough and effective accident investigation.

## Auditing Environmental and OH&S Management Systems

**Date:** Dec 12-15, 2011 **Time:** 8:30 am - 4:00 pm  
**Instructors:** John Underwood **Cost:** \$1395 **CEUs:** 2.8  
 Conrad LeLievre **Course# :** 6398

Auditing Environmental and Occupational Health & Safety Management Systems will examine auditing processes for *ISO 14001:2004 Environmental Management Systems (EMS)* and *OHSAS 18001:2007 Occupational Health and Safety Management Systems (OHSMS)*. Guidelines of Canadian Standards Association (CSA) report *CAN/CSA-Z1000-06-Occupational Health and Safety Management* are also

incorporated into discussion material. This course is designed to assist any who are preparing to establish and implement audit programs, or who wish to review existing audit programs. Auditing, whether for environmental or occupational health and safety management systems, is a skilled discipline that follows generally accepted auditing principles and practices. Some of particular relevance are described in *ISO 19011: Guidelines for Quality and/or Environmental Management Systems Auditing* and in the *Body of Skills and Knowledge of the Canadian Environmental Certification Approvals Board (CECAB)*.

## Radon Training for Professionals

Radon is a naturally occurring colourless, odourless, and tasteless radioactive gas that is the second leading cause of lung cancer after smoking. This gas is released through the natural radioactive decay of uranium, which is found in varying amounts in rock, soil and water throughout the world. As radon gas decays it releases small bursts of energy that can damage lung tissue. The National Cancer Institute of Canada estimated that in 2006, 10,700 men and 8,600 women died from lung cancer of which 10-15 percent were caused by radon gas.



The Midwest Universities Radon Consortium (MURC) is one of four U.S. EPA established Regional Radon Training Centers (RRTCs) founded in 1988. MURC collaborates with Health Canada, the U.S. Environmental Protection Agency (EPA), industry, National Radon Safety Board (NRSB), and the National Environmental Health Association (NEHA) to create a network of programs and outreach materials for our clients and to offer the highest quality training in radon measurement, mitigation, and indoor air quality.

### Objectives/Benefits

- preparation to take a recognized proficiency examination and to be recognized by Provincial authorities and others as a trained professional
- latest research, protocols, and standards of practice and includes coverage of Canadian and American regulations as well as global practices
- covers physics of radon, health effects of radon, radon sources and transport, how to properly make radon measurements, quality assurance/quality control, radon measurement devices, and radon mitigation fundamentals
- covers indoor air quality based diagnostics, design, installation, and trouble-shooting radon mitigation systems, worker health and safety, radon in water, and preventing radon in new homes
- is especially important for home inspectors, contractors, plumbing contractors, environmental consultants, public health officials, real estate professionals, and other indoor air quality professionals

## Radon Measurement

**Date:** Dec 14-16, 2011 **Time:** 8:30 am - 4:00 pm  
**Instructor:** William Angell **Cost:** \$1050 **CEUs:** 1.4  
**Course# :** 6395

This course covers the physics of radon, health effects of radon, radon sources and transport, how to properly make radon measurements, quality assurance and quality control, radon measurement devices, and radon mitigation fundamentals. The course is especially important for home inspectors, contractors, environmental consultants, public health officials, real estate professionals, indoor air quality professionals, and non-profit health advocacy organizations. It includes coverage of the new Canadian radon measurement protocols and mitigation guidelines. Days 1 & 2: Classroom Days  
 Day 3: Optional Exam

## Radon Mitigation

**Date:** Jan 16-19, 2012 **Time:** 8:30 am - 4:00 pm  
**Instructor:** Jack Bartholomew Jr. **Cost:** \$1295 **Course# :** 6396 **CEUs:** 2.1

This course covers indoor air quality based diagnostics, design, installation, trouble-shooting radon mitigation systems, worker health and safety, radon in water, and preventing radon in new homes. The course is essential for home builders and inspectors, HVAC and plumbing contractors, environmental consultants, public health officials, indoor air quality professionals, and non-profit health advocacy organizations. It includes coverage of the new Canadian radon measurement protocols and mitigation guidelines. Days 1-3: Classroom Plus Site Visit  
 Day 4: Optional Exam



# Canadian Risk Management Program

The Canadian Risk Management (CRM) Program is comprised of three comprehensive management courses in the fast-growing, exciting discipline of risk management. Risk management is the ability to analyze, communicate, recommend problem solving techniques and monitor the exposure of unexpected losses.

The Canadian Risk Management Program (CRM) designation is awarded to students as an acknowledgement of the successful completion of the three courses. It is issued by the Global Risk Management Institute, Inc. and recognized by the Risk & Insurance Management Society, Inc., and The Insurance Institute of Canada.

## Who Should Attend:

- Risk Managers
- Environmental Managers
- Legal Professionals
- Human Resource Managers
- Insurance Underwriters
- Insurance Buyers
- Purchasing Professionals
- Finance Professionals
- Insurance Claims Adjusters and Examiners
- Safety Managers
- Managers in the Public Sector

**Please Note:** Courses should be taken in sequence with *Risk Assessment* being the prerequisite for *Risk Control* and *Risk Financing*.

## Risk Assessment

**Date:** Sep 19-21 & Oct 3-5, 2011

**Time:** Days 1 & 4: 1-4 pm; Days 2-3, 5-6: 8:30 am - 4:00 pm

**Instructor:** Karen MacWilliam **Cost:** \$1395 **CEUs:** 4.0

**Course# :** 6237

The course focuses on the first two steps of the risk management decision making process: (1) identifying and analyzing the loss exposures, and (2) developing alternative techniques for treating each exposure. Subjects treated include choosing the best risk management alternative, and guidelines for selecting the most appropriate techniques for handling each exposure.

## Risk Control

**Date:** Jan 9-11, 2012 (In class) **Time:** 8:30 am - 4:00 pm  
+ 6 Online sessions

**Instructor:** Karen MacWilliam **Cost:** \$1395 **CEUs:** 4.0

**Course# :** 6238

This course focuses on theories of accident causation, explains fundamental risk control techniques and discusses the application of various risk control measures to property, intellectual property, personnel, liability and net income loss exposures. It also discusses the application of system safety analysis to identify potential losses and explains how to motivate members of an organization to apply risk control measures and how to monitor the effectiveness of those measures.

## Risk Financing

**Date:** Oct 24-26 & Nov 21-23, 2011

**Time:** Days 1 & 4: 1-4 pm; Days 2-3, 5-6: 8:30 am - 4:00 pm

**Instructor:** Karen MacWilliam **Cost:** \$1395 **CEUs:** 4.0

**Course# :** 6047

Risk Financing includes the selection, implementation and monitoring of risk financing techniques. Subjects include insurance as a risk financing technique; financing property; risk retention including use of captives; risk cost allocation; finite and integrated risk plans and capital market products for risk financing.

**William J. Angell** is a University of Minnesota Professor and Director of one of four U.S. Environmental Protection Agency (EPA) founded Regional Radon Training Center, the Midwest Universities Radon Consortium. He chairs the World Health Organization's (WHO) International Radon Project's Mitigation and Prevention Working Group. He is Past President of the American Association of Radon Scientists and Technologists and has served as Chair of the National Environmental Health Association's Radon Educational Advisory Board. Bill has been Principal Investigator on more than 90 EPA, state, tribal, association, industry, and other sponsored projects. In addition to his University work, he has been a Visiting Scientist at two national laboratories, the EPA's Radiation and Indoor Environments National Laboratory and Lawrence Berkeley National Laboratory.

**Jack Bartholomew Jr.** is the owner of Radon, Energy and Ventilation in Minneapolis, MN. For over 25 years, he has been solving radon and other indoor air quality problems in houses, apartment buildings, and schools. He was featured on Ask This Older House and his research contributed to the EPA's technical guidance and training on radon mitigation. Jack has an international reputation of being one of the most thorough radon diagnosticians and he is the expert other mitigators seek out when they have indoor radon problems that they can not resolve. He freely gives all of his knowledge to students and radon mitigators. He is an American Association of Radon Scientists and Technologists member.

**John Cameron** is a human resource practitioner with over 30 years experience in managing, recruiting, employee relations, health and safety and industrial engineering. Mr. Cameron worked for 23 years with Michelin Tire (Canada) Inc. where he held various human resource positions, including manager of safety and security. Prior to that he was with Scott Maritimes where he was involved in the development of innovative safety programs.

**David Chiasson, M.Sc., CHFP**, has over thirteen years of experience successfully completing ergonomics projects, presentations and workshops for private corporations and across numerous levels of Federal and Provincial governments throughout Canada where he has helped organizations, teams, and individuals make their workplaces safer, healthier and more productive. David has a Master of Science degree in Ergonomics from Dalhousie University, is a member of the Association of Canadian Ergonomists (ACE), and is a Board Certified Human Factors Professional as awarded by the Board of Certification in Professional Ergonomics (BCPE).

**Kevin Emenau, B.Sc.Sp., P.GEO.**, is an Associate and Senior Project Manager for Conestoga Rovers & Associates, in their Halifax office. Kevin's academic background includes studies in geology, chemistry and occupational health & safety, with work expertise in multiple Phase I - II's, hydrogeological contaminant assessment and regulatory compliance. Kevin has over 20 years of experience working across Canada and internationally for public, private and industrial clients.

**Vince P. Garnier, CD, MPA**, is a retired Military Police officer and investigator who conducted several hundred investigations throughout his professional career and he also served in the Gulf War in 1991 in the area of counter-terrorism. Vince has worked in the OHS regulatory field for 10 years, both, in field and management capacities. Vince is highly experienced and educated in the art of investigations which he has taught to police officers and OHS safety officers employed with the NS Department of Labour. He has also written OHS investigation policies and procedures, and he lead a work group that developed an investigation training program for OHS regulatory officers earning his team the Minister's Award of Excellence and a nomination for the Premier's Award of Excellence in 2007. Vince has a Masters degree in Public Administration from Dalhousie University .

**Conrad LeLièvre, P.Eng., CRSP** has over 34 years of mechanical engineering experience in manufacturing and consulting. Following a 28 year career in plant and machine quality assurance engineering with Michelin North America (Canada) Inc., he is currently the occupational health and safety coordinator in Halifax for CBCL Limited. He has been actively involved with Nova Scotia Engineers' Public Safety Committee since its inception in 2000.

**Karen MacWilliam** is a consultant specializing in risk management and insurance analysis. She has worked in the insurance and risk management fields since 1985 as an underwriter, corporate risk manager and broker, and has operated a successful consultancy

since 1997. She holds a B.A. in Economics from UBC, her AIC, FIIC designations from the Insurance Institute of Canada, and the CRM designation. She has been on staff at Simon Fraser University at Harbour Centre in Vancouver since 1992 teaching risk management and advanced insurance curriculum, and has been a lecturer in risk management at the University of Northern British Columbia in Prince George since 2003. Karen is a sought-after trainer for private clients and the Insurance Brokers' Associations in B.C. and Alberta, and the Insurance Institutes in Northern Alberta, Southern Alberta, and Nova Scotia. In 2001, Karen authored a 200-page risk management and insurance reference book titled *The Risk Management and Insurance Guidebook for Industry*, © ABS/Government Institutes of Rockville, MD, which is the basis for an online study program and is used as a text by international colleges.

**Lisa J. Mitchell, B.A., LL.B., MES.**, is a lawyer (Dalhousie, 1991) and principal of LJM Environmental Law & Consulting. She has a Masters of Environmental Studies from the School for Resource and Environmental Studies (Dalhousie, 1994), and more than fifteen years of experience working in the areas of environmental law, policy and environmental management. Lisa's law practice is exclusively in the area of environmental law. She has developed a broad-ranging practice base that includes governments, non-government organizations, private-sector companies, community groups and individual clients. Her expertise in this area originated in the challenging field of agri-environmental law and has expanded to include contaminated sites, environmental impact assessment, water regulation, professional and corporate environmental liability, coastal management and other areas.

**Peter Oram, B.A., P.GEO., CESA**, is Vice President with Conestoga-Rovers Inc. and has acted as project manager and/or hydrogeologist for over 300 environmental investigations including ESAs, acid mine drainage assessments, water supply development, mineral projects, and landfill siting in Atlantic Canada, Ontario and the Northwest Territories.

**Jeremy Rickards** is a founding partner of Selby Associates Inc., a full-service consulting company specializing in human productivity, and a Research Professor - Industrial and Human Factors Engineering - at the University of New Brunswick. Jeremy holds degrees in Industrial Engineering from London University, England, and in Business Administration from McGill University; is a Registered Professional Engineer in the province of New Brunswick, a Senior Member of the Institute of Industrial Engineers, and a Fellow of the Association of Canadian Ergonomists (ACE). He has 40 years of experience designing, specifying and delivering cost-effective ergonomics solutions to a wide range of industrial and service industry clients.

**John Underwood, Ph.D., CEA, EMS(LA)**, managed the environmental audit program at Nova Scotia Power for eighteen years. He has over thirty five years of environmental experience within academia, government and industry. Dr. Underwood is nationally certified to lead environmental management system audits within industry. He is past Secretary of the Board of Directors for CEAA, and has conducted environmental audits throughout Canada.



# YOUR PLACE OR OURS? Customized Training

Dalhousie University College of Continuing Education has been helping organizations achieve success through customized, in-house training for over 30 years. Whether the topic is IT, Engineering, Quality Assurance or General Management, we have the expertise to help your organization adapt, compete and succeed.

## REGISTRATION INFORMATION

### To Register or for More Information

- Tel: 1.800.565.1179 or 902.494.6079 (8:00 am-4:30 pm AST)
- Fax: 902.423.9859
- Email: [cte@dal.ca](mailto:cte@dal.ca)
- Online: [www.cte.dal.ca](http://www.cte.dal.ca)

### Location

- Dalhousie University, College of Continuing Education, 1459 LeMarchant St. Suite 2201, Halifax, NS B3H 3P8

### Parking

Parking passes (\$11.00 per day) should be purchased in advance from our Registration Office (902.494.6079 or 1.800.565.1179) a minimum of 10 business days prior to your course start date. Passes will be mailed out with your registration confirmation. Parking fees are non-refundable.

Please note that parking is very limited on the Dalhousie campus. As parking spaces are not reserved we recommend that you arrive on campus by 8:00 am to obtain a parking spot. We suggest that you park at either the Sir James Dunn or Hancock Hall parking lots. A Dalhousie parking lot map will be sent with parking passes.

### Accommodations

- Lord Nelson Hotel: 1.800.565.2020
- Atlantica Halifax Hotel: 1.888.810.7288

### Continuing Education Units

Continuing Education Units (CEUs) will be awarded for participation in these courses. One CEU is equivalent to 10 classroom hours or 10 professional development hours (PDHs). The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

### Cancellation Policy

If a withdrawal is made up to 10 business days prior to the start of the course the full fee will be refunded. If a refund is requested after that date, a 20% administration charge will be deducted. You may substitute another to attend at no additional cost. If the course is cancelled for any reason, we will contact the registrants and provide a full refund. The university's liability is limited to the return of the registration fee. If a speaker is not available due to unforeseen circumstances, another speaker of equal ability and expertise will be substituted.

Participants withdrawing from a certificate program course should notify College of Continuing Education, in person or in writing, indicating the reason for withdrawal. Participants may be allowed to apply part of the fee paid to another course offered by College of Continuing Education.

### For more information call:

1.800.565.1179 or 902.494.6079

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