



BEAHR Workforce Training Programs:

Environmental Monitoring Coordinator – Research Specialization

Environmental Monitoring Coordinator – Regulatory Specialization

Environmental Site Assessment Assistant

Contaminated Sites Remediation Coordinator

Land Use Planning Coordinator

2-day Land Use Planning Seminar

Local Environmental Coordinator

Solid Waste Coordinator

BEAHR Technician Training Programs:

Certificate of Applied Environmental Techniques

Certificate of Environmental Planning and Administration

Customizable Certificate



Environmental Core Skills Modules

Course Duration: 3 instructional weeks

Prerequisite: Grade 8 or equivalent

Course Description:

The environmental core modules curriculum is mandatory for all students enrolled in the Environmental Monitor Training Program, the Environmental Site Assessment Assistant Training Program or the Contaminated Sites Remediation Coordinator Training Program. Students must complete at least one of these programs to receive a Certificate of Successful Completion.

The core curriculum consists of five modules, each with specific objectives to help students develop the skills necessary to work in the environmental sector at an assistant level. These modules include:

1. Foundation Skills
2. Introduction to the Environmental Sector
3. Technical Skills
4. Health & Safety
5. Local Knowledge

Key Topics:

- Teamwork and Communication
- Observational Skills
- Decision Making
- Conflict Resolution
- Introduction to Ecology, Hydrology, Soil Science, Environmental Legislation
- Environmental Management Tools and Approach to Environmental Management
- Environmental Assessments and Monitoring
- Standard Equipment and Tool Use
- Field Notes, Photography, Measurement, and Communications Systems
- Maps, compass, GPS, GIS
- Health and Safety Procedures
- Hazardous Materials
- Fire Awareness and Safety and Safety during Field work and travel
- Local Knowledge and Traditional Knowledge
- Approaches for respectfully obtaining Traditional Knowledge
- Documenting Traditional Knowledge
- Use of Traditional and Local Knowledge



Environmental Monitoring Coordinator – Regulatory Specialization

Course Duration: 2 instructional weeks

Prerequisite: Grade 8 or equivalent and successful completion of Environmental Core Skills Modules

Course Description:

Environmental Monitors observe the environment and the impacts of human and industrial activities. They communicate this information to various stakeholders and help to mitigate negative environmental impacts. Regulatory Monitors are those individuals who monitor the activities of industry to ensure compliance with land-use or other environmental impact agreements. Some of the topics covered in the regulatory specialization include:

- Legislative and non-legislative environmental requirements that apply to development activities
- Identification of environmental effects and the related monitoring and reporting requirements at different phases
- Role of local knowledge and Western science in identifying risks, mitigation measures, and further monitoring requirements

Key Topics:

- Environmental Protection in Canada
- Current Legislation
- The Canadian Environmental Protection Act
- The Fisheries Act
- Environmental Impact Assessment
- Species at Risk Act
- Navigation Protection Act
- Migratory Birds Convention Act
- Other Relevant Legislation
- Federal and Provincial or Territorial Jurisdictions
- Non-Legislative Tools for Environmental Protection
- Environmental Management Systems (EMS)
- Permits, Licenses and Approvals
- Project Phases
- Environmental Monitoring and Reporting
- Protocols for Compliance Monitoring and Auditing
- Reporting on Environmental Effects and Observations
- Measuring Ecological Effects
- Culminating Activity



Environmental Monitoring Coordinator – Research Specialization

Course Duration: 2 instructional weeks

Prerequisite: Grade 8 or equivalent and successful completion of Environmental Core Skills Modules

Course Description:

Environmental Monitors observe the environment and the impacts of human and industrial activities. They communicate this information to various stakeholders and help to mitigate negative environmental impacts. Research Monitors are those individuals who assist with the monitoring of various factors of the environment. For instance, they assist in wildlife counts, surveys, or sampling. Some of the topics covered in the research specialization include:

- Incorporating local knowledge and Western science into environmental monitoring and planning
- Basic ecological principles
- Using standard equipment and tools for environmental monitors including safety equipment, maps, GPS and recording equipment
- Using various surveying and sampling techniques used to study environmental parameters

Students will apply the skills introduced to them in the classroom during a culminating activity in the field. In the culminating activity they will follow recognized monitoring protocols and practice using environmental monitoring equipment commonly used in the region.

Key Topics:

- Sampling and Surveying
- Preparing for an Environmental Monitoring Project
- Sampling Protocols
- Quality Assurance and Quality Control (QA/QC)
- Ecosystems and Vegetation
- Soil Quality
- Wildlife
- Water Quality
- Air Quality
- Culminating Activity



Environmental Site Assessment Assistant

Course Duration: 4 instructional weeks

Prerequisite: Grade 8 or equivalent and successful completion of Environmental Core Skills Modules

Course Description:

An environmental site assessment assistant participates in the environmental assessment of a potentially contaminated site. The program curriculum prepares students with the essentials of environmental site assessment phases I, II, and III. Some of the topics covered in this course include:

- Background on Environmental Site Assessment Approaches, legislation and regulatory agencies
- Obtaining local knowledge about the site and surroundings
- Sampling and testing techniques
- Interpretation and evaluation of field data
- Project planning and preparing reports

Key Topics:

- Project planning
- Obtaining and reviewing relevant records
- Planning and conducting a site visit
- Conducting interviews and obtaining local knowledge
- Review of information and summary of findings
- Project planning
- Review of existing information
- Developing a work plan
- Preparing for fieldwork
- Sampling protocol
- Soil sampling and testing
- Groundwater sampling and testing
- Sampling and testing other media
- Evaluating field data and analytical results
- Phase III ESA
- Contaminated Site Management
- Federal Approach to Contaminated Sites (10 Steps)
- Scoring of sites (NCSCS and ASCS)
- Ecological Risk Assessment
- Long Term Monitoring
- Personal and Communication Skills
- Contaminants in the Environment
- Environmental Site Assessment Approaches and Process
- Environmental Legislation and Regulatory Agencies



Contaminated Sites Remediation Coordinator

Course Duration: 4 instructional weeks

Prerequisite: Grade 10 or equivalent and successful completion of Environmental Core Skills Modules

Course Description:

A contaminated sites remediation coordinator assists in the confirmatory sampling of a remediated site and coordinates the long-term monitoring of site health and recovery. The program curriculum prepares students with the essentials of contaminated sites remediation. Some of the topics covered in this course include:

- Introduction to the steps of contaminated sites management
- Engaging the community about remediation activities
- Sampling and testing at a site
- Developing and implementing a remedial action plan
- Long-term monitoring of site health and recovery

Key Topics:

- Personal and professional skills
- Environmental contaminants
- Environmental site assessment basics
- Contaminated site management
- Evaluation of Site Information and Remedial Options
- Preparation of Remedial Action Plan
- Occupational Health and Safety Plan
- Public Involvement and Communication Public Consultation Activity
- Environmental assessment of remediation project
- Tendering and Contracting of Work
- Conducting Remedial Work
- Fieldwork
- Site Safety
- Emergency Response Procedures
- Project Coordination and Management
- Confirmatory sampling and analysis
- Report of completion
- Long-term site monitoring



Land Use Planning Coordinator

Course Duration: 4 instructional weeks

Prerequisite: Grade 10 or equivalent

Course Description:

A land use planning coordinator assists in the development and coordination of a community land use plan with emphasis on Indigenous land use planning. The program curriculum prepares students with the fundamental concepts associated with the creation, execution and implementation of a land use plan designed to meet the needs of their community or region. Upon graduation, they can assist with:

- Developing a community vision and goal
- Gathering biophysical and cultural information
- Creating an inventory of community information
- Coordinating a community mapping session
- Identifying and assessing land use options

Key Topics:

- Land Use Plans
- Land Use Planning: A Brief History
- Working with Cultural Knowledge and Land Use Planning
- Creating Capacity to Plan
- Developing a Land Use Planning Process Vision
- Gathering Information and Completing a Community Analysis
- Linking the land use plan and the community vision
- Identifying and assessing land use plan options
- Finalizing land use plan options
- Community approval
- An Introduction to Implementation
- The Legal Environment of Aboriginal Land Use Planning
- Track and Evaluate Results of Implementation of the Land Use Plan
- Revise the Land Use Plan
- Communicate Revisions



Two-Day Land Use Planning Seminar

Course Duration: 2 instructional days

Prerequisite: Grade 10 or equivalent

Course Description:

Developed to allow those working in the environmental field an opportunity to build their awareness and understanding of Land Use Planning (LUP) in a shortened format. The two-day LUP seminar is a great professional development opportunity for community members involved in, or interested in becoming involved in, the leadership in their community, environmental management in their community, or in economic development. It can be offered as a stand-alone program or could be added to another BEAHR Training Program.

Key Topics:

- Land Use Plans
- Land Use Planning: A Brief History
- Working with Cultural Knowledge and Land Use Planning
- Creating Capacity to Plan
- Developing a Land Use Planning Process Vision
- Gathering Information and Completing a Community Analysis
- Linking the land use plan and the community vision
- Identifying and assessing land use plan options
- Finalizing land use plan options
- Community approval
- An Introduction to Implementation
- The Legal Environment of Aboriginal Land Use Planning
- Track and Evaluate Results of Implementation of the Land Use Plan
- Revise the Land Use Plan
- Communicate Revisions



Local Environmental Coordinator

Course Duration: 12 instructional weeks

Prerequisite: Grade 10 or equivalent

Course Description:

A local environmental coordinator assists in protecting and improving the quality of the environment in his or her community. The program curriculum prepares students with the fundamentals of environmental management. Some of the topics covered in this course include:

- Background on the environmental issues that may affect their community
- Communication skills, interpersonal skills, and non-technical work skills
- Project management; including budget tracking, monitoring project schedules and supervising staff
- Identifying pieces of legislation that are used in the environmental sector
- Integrating Traditional Knowledge within data collection and data analysis
- Developing, implementing, and monitoring environmental plans

Key Topics:

- Overview of Environmental Management
- Ecology and Traditional Knowledge
- Contaminants in the Environment
- Community Environmental Issues
- Interpersonal Skills
- Non-technical Work Skills
- Problem-solving Skills
- Community Service Activity
- Principles of Effective Communication
- Oral Communication
- Written Communication
- Project Planning
- Human Resource Management
- Project Monitoring and Control
- Overview of Environmental Legislation
- Overview of Aboriginal Governance and Treaties
- Traditional Knowledge
- Land Use
- Maps
- Site Visits
- Sampling Programs
- Foundation Building Blocks
- Environmental Health and Safety Plans
- Emergency Response Plans
- Environmental Stewardship Plans
- Environmental and Socio-economic Impact Assessments
- Promoting and Defending Community Ideas and Interests



Solid Waste Coordinator

Course Duration: 5 instructional weeks

Prerequisite: Grade 10 or equivalent

Course Description:

A solid waste coordinator is responsible for the management of household and commercial waste in his or her community. The program curriculum teaches students about waste collection, disposal, and diversion processes, as well as supporting community education and waste reduction promotion. Some of the topics covered in this course Traditional Knowledge within data collection and analysis. Emphasis will be placed on understanding how to include:

- Planning, developing and implementing a waste management program
- Administration of a waste management program and communication to the community
- Design, operation, management, and closure of a landfill facility
- Collecting and disposing of waste
- Diverting waste from the landfill (e.g. recycling and composting)

Key Topics:

- Overview of Solid Waste Management
- Integrated Waste Management System and Waste Management Hierarchy
- Introduction to Waste Types, Composition, Properties, and Generation
- Overview of Waste Technologies
- Environmental Impacts of Solid Waste Management
- Design Considerations for the Solid Waste Landfill Facility
- Overview of Landfill Site Selection
- Hazardous Waste at Solid Waste Landfill Facilities
- Waste Degradation and Landfill Gas Production
- Leachate Generation, Characteristics and Treatment
- Closure of the Landfill
- Roles and Responsibilities of Operations
- Fundamental Operations and Maintenance Plan
- Spill Contingency and Emergency Response Plan
- Operations and Maintenance
- Health and Safety
- Regulations and Legislation
- Local Culture, Organization and Decision-Making Processes
- The Necessity of Planning
- Budgets and Forecasting and Financial Reporting
- Managing Human Resources
- The Procurement Process
- Monitoring the Project
- Preparing for a Community Consultation and Solid Waste Landfill Facility Management



Technician Training Programs

Certificate of Applied Environmental Techniques

Course Duration: 15 instructional weeks

Prerequisite: Grade 10 or equivalent

Course Description:

The Certificate of Applied Environmental Techniques provides students with an introduction to the environmental sector. It emphasizes three key areas, including environmental monitoring, environmental site assessments, and contaminated sites remediation. Students will gain valuable experience through both in class and field activities, and will learn about sampling, testing, interpretation and evaluation of data, preparing reports, regulatory implications, and remedial action plans. This certificate brings some of BEAHR's workforce training programs together into one comprehensive certificate. The certificate includes modules from the following programs:

- Environmental Core Modules
- Environmental Monitoring Research and Regulatory Specializations
- Environmental Site Assessment Assistant
- Contaminated Sites Remediation Coordinator

Certificate of Environmental Planning and Administration

Course Duration: 16 instructional weeks

Prerequisite: Grade 10 or equivalent

Course Description:

The Certificate of Environmental Planning and Administration offers an introduction to environmental management practices, including communication and life skills, developing and implementing environmental plans, and integrating Traditional Knowledge within data collection and analysis. Emphasis will be placed on understanding how to develop, create, and implement a land use plan, introducing students to key concepts and the history of Indigenous land use planning. This certificate brings together two workforce training programs into one comprehensive certificate. The certificate includes modules from the following programs:

- Local Environmental Coordinator
- Land Use Planning Coordinator

Customizable Certificate

Course Duration: Minimum of 15 instructional weeks

Prerequisite: Grade 10 or equivalent

Course Description:

The Customizable Certificate allows communities or individual students the opportunity to take the Workforce Training Programs of their choice, based on local needs and employment or educational opportunities. Sometimes a community will plan to offer a certificate program where the Workforce Training Programs are offered consecutively. Other times, a student may have the opportunity to take different courses at different points in their career and qualify for a certificate by completing at least 15 instructional weeks of the BEAHR Training Programs.