

This document is intended to provide a starting point for instructors who are new to teaching occupational health and safety, or who would like some new ideas for high level OHS concepts not traditionally discussed in many private career college classrooms. The suggested activities and examples for both instructors and students are arranged by the same topic headings found in the resource moodle:

- Introduction to Occupational Health and Safety
- Your Safety Rights, Responsibilities and NS Safety Law
- Hazard Identification and Control
- WHMIS, First Aid, Emergency and Fire Safety
- with the additional section “Promoting a Culture of Workplace Safety.”

The remainder of the overview has suggestions and examples for assessment and evaluation, and several short fictional case studies intended as discussion starters for in-class work. For more information about teaching occupational health and safety concepts and related subjects, please feel free to contact Tracey Leary, Education Consultant at the Workers’ Compensation Board of Nova Scotia, [tracey.leary@wcb.gov.ns.ca](mailto:tracey.leary@wcb.gov.ns.ca) and 902-491-8109.

### **Suggested Classroom Activities, Evaluation and Assessment**

#### **Introduction to Occupational Health and Safety**

- Define and discuss “occupational health and safety” (see instructor overview)
- Initiate a discussion in which students describe their own work experiences and share personal stories about workplace safety
- Discuss workplace case studies and/or current events (in media) to increase awareness
- Invite a guest speaker to discuss workplace health and safety matters and answer students’ questions; eg. local employers and workers, especially those who are health and safety committee members for their workplaces, local union representatives, officers from the Occupational Health and Safety (OHS) division of the Department of Labour and Advanced Education, WCBNS (Workers’ Compensation Board of Nova Scotia) representatives, injured workers willing to share their experiences, other interested community members
- Invite the industry association that regulates your curriculum to discuss industry best practices for workplace health and safety
- Discuss potential and probable financial costs to businesses of unsafe work practices

- Discuss how interpersonal situations (at home and at work) may impact health and safety at a worksite. Discuss effective conflict resolution on worker health and safety. Discuss potential impact of *not* addressing conflict resolution on worker safety.
- Introduce workplace diversity and inclusion; discuss as a workplace health & safety issue
- Write a letter to a local politician or publication discussing ways in which workplaces could be safer and healthier
- Create an ethics or vision statement for a business; include workplace health and safety
- Watch health, safety and WCB videos and discuss how proper supervision and the observing of safety rights and responsibilities could have prevented portrayed incidents
- Interview families, friends and community contacts for anecdotal information about workplace incidents and injuries; create a brief and presentation for class or instructor.

#### **Your Safety Rights, Responsibilities and NS Safety Law**

- Present information about regulatory or monitoring agencies in workplace safety, including
  - the OHS division of the Nova Scotia Department of Labour and Advanced Education
  - the Labour Standards Board
  - the Workers' Compensation Board of Nova Scotia
  - the Office of the Fire Marshal
- Present the history and purpose of the Internal Responsibility System as the guiding principle of Nova Scotia's OHS Act
- Think about and discuss differences between "rights" and "responsibilities"
- Introduce the topic of workers' rights by describing a time and place that held values different from those we expect today, for example, reading an excerpt from a historical account, historical novel, or current news story that describes a workplace situation in which health and safety practices would be considered unacceptable by today's (Canadian) standards
  - Consider reading and discussing Canadian books that tie together life, communities, and primary industry work, such as Sheldon Currie's "The Glace Bay Miners' Museum" (Breton Books, 1994) which was made into the movie "Margaret's Museum", or Shaun Comish's "The Westray Tragedy: A Miner's Story" (Fernwood Publishing, 1993)

- Explore the history of occupational health and safety in Nova Scotia; as a key influence of legislation, include the Westray mine disaster and ensuring inquiry.
  - Westray Inquiry: Nova Scotia Government ([www.library.ns.ca](http://www.library.ns.ca))
  - Westray Inquiry: St. Francis Xavier University Library—Westray Collection ([www.library.stfx.ca/collections/westray\\_collection/index.php](http://www.library.stfx.ca/collections/westray_collection/index.php))
- Discuss real and potential impact of workplace incidents, injuries, and fatalities on businesses, workers, families, co-workers, community, and the health-care system
- Research sections of the OHS Act and do a table of employer and workers rights and responsibilities, then present or discuss. The following sections are suggested:
  - Section 13—Employers’ Precautions and Duties
  - Section 17—Employees’ Precautions and Duties
  - Section 28—Requirement for OHS Program
  - Sections 29 and 31—Requirements for Joint OHS Committees
  - Section 43—Right to Refuse Work
  - Sections 45 and 46—Prohibition of Discriminatory Action
- Investigate a variety of workplaces and legislation - Create a table. Across the top fill in the names of different pieces of legislation, and down the side fill in the names of different types of workplaces or jobs. Search the pieces of legislation for applications to those workplaces and fill in at the intersections.
- Present examples or case studies of workplace incidents and/or injuries; identify and discuss how non-compliance to legislation may have or likely did influence each situation
- Design and present role-plays that show how to talk to workplace supervisors about job situations that may make workers or co-workers, uncomfortable or unsafe; include possible solutions and future actions.
- Prepare and present an information pamphlet or slide show about one of the regulations under the OHS Act
- Research information about other pieces of Nova Scotia legislation that relate to the OHS Act, such as the Health Act, the Labour Standards Code, or the Fire Safety Regulations.

### **Hazard Identification and Control**

- Provide students with injury statistics from the WCBNS website and/or information sheet :
  - What does the data say about injury rates?
  - How could the data be explained? What are some implications of the data?
  - Are workers sometimes treated differently? Could this influence injury?
  - What impact can worker and supervisor inexperience have on worker safety?
  - How may workers’ level of self-confidence influence their safety?

- Discuss as a group whether students have ever felt at risk in a work situation.
  - How did they feel?
  - Did they express their concerns for their safety?
  - Did they feel they could express concerns for their safety?
  - If so, how were their concerns received?
- Explore psychosocial hazards (personal interactions) for connections between relationships, communication and health and safety in the workplace, including
  - professionalism and appropriate language
  - sensitivity to co-workers and customers
  - awareness of worker rights, including workplace violence and sexual harassment
  - safe and effective conflict management
  - awareness of factors that can influence behaviour
- Introduce concepts of personal values and workplace ethics and etiquette as factors influencing worker health and safety
- Discuss and examine the role of stress in creating hazardous conditions, focusing on
  - how stress can influence workplace health and safety
  - how stress is influenced by interpersonal communication and relationships
  - the effect of changing trends and technology on workplace stress and workplace safety
  - how behaviour is influenced by stress
  - how stress can be managed in a healthy manner
- Examine interpersonal challenges that workers, both new and experienced, face when going to a *new* job or different type of work; discuss appropriate, productive responses
- Investigate the hazards of specific tasks, jobs and/or careers
- Discuss and draft a procedure for filing a report or a complaint or concern to a supervisor about a health or safety matter
- View the WorkSafe BC video “The Supervisor” and, prior to viewing,
  - discuss challenges experienced by supervisors, especially younger or newer supervisors, in meeting their workplace responsibilities
  - contribute their own workplace experiences as supervisors, if any, noting how they exercised their rights and responsibilities as supervisory workers
- Research appropriate procedures for reporting a workplace incident, injury, or fatality to the OHS division of the Department of Labour and Advanced Education, and/or to the Workers’ Compensation Board

- Discuss why the reporting of workplace hazards is important, including:
  - why workers might not report hazards to their supervisors
  - why hazard reports might not be acted upon
  - consequences for both employers and workers if hazard controls are disregarded
- Design and deliver a safety inspection survey/checklist for the school's work spaces such as classrooms, labs, kitchens, common areas, libraries, etc. and present the results to the school's administration, maintenance coordinator, or Joint Occupational Health and Safety Committee
- Examine and discuss informational material about hazard control, specifically administrative controls or the "hazard control pathway", examining controls at (1) the source, (2) along the path, and (3) at the worker, and how each level must be present for true hazard control
- Select a specific workplace or type of task and diagram the hazard control pathway with examples showing how the three types of hazard controls must work to prevent incident or injury
- Examine and discuss personal protective equipment (PPE) including examples
- Research PPE legislation as it pertains to specific workplaces, careers, and workplace tasks
- Discuss technological changes that have improved PPE and so prevented workplace injury
- Discuss how changes in technology, or in common work practices, have affected different types of industries or workplaces, such as farms, building construction sites, offices, off-shore drill rigs, hospitals, etc. How can changes in technology influence hazards, hazardous conditions or protective measures?

### **WHMIS, First Aid, Emergency and Fire Safety**

- Provide students with information about
  - hazardous materials symbols and proper labelling
  - the Material Safety Data Sheet (MSDS)
  - proper storage and handling of hazardous materials
  - results of improper handling of hazardous materials
  - proper procedures to follow if they detect irregularities such as leaks, passed expiry dates, deteriorating containers
- Student knowledge about WHMIS should include recognition and understanding of
  - safe storage and handling of hazardous materials
  - WHMIS symbols and the necessity of labelling hazardous materials
  - proper storage, transport, and disposal of hazardous materials

- examples and use of hazard barriers and personal protective equipment
- the role and use of a Material Safety Data Sheet (MSDS)
- how to respond to an emergency involving hazardous materials
- WHMIS training at work
  
- Investigate as group, or lead a discussion about the history of WHMIS, including:
  - What protection did workers have against hazardous materials prior to WHMIS legislation?
  - What are the results of that today? (long-term occupational disease, cancers) review that there is federal and provincial WHMIS legislation
  
- Interview retired workers about their pre-WHMIS working days about what kinds of hazardous materials they regularly handled or worked around
  
- Show strategies for safe and effective response to workplace hazards and emergency situations through exercising safety rights and responsibilities. Present general emergency response information that workers need to know in any workplace:
  - fire safety and fire exits
  - security systems and protocols
  - response to threatening, dangerous, and/or difficult behaviour
  - use of telephones, two-way radios, pagers, e-mail, text messaging
  - communication protocols when working alone or away from the base of operations
  - response to hazardous materials spills
  - response to injuries, minor to severe
  - write a risk analysis of work that they currently do or hope to do and design an emergency response protocol that reflects some of the hazards of that work

### **Promoting a Culture of Workplace Safety**

Examine and discuss what is a 'culture' of health and safety, and how to promote it, including:

- interviewing local businesses to see what they do to promote workplace safety
- interviewing health and safety professionals about changes they've seen in workplaces and in their practice
- collecting news items concerning workplace health and safety from local media and present their findings
- consider and discuss how they can contribute to a culture of safety in their part-time, or future, workplaces
- design a print campaign to move viewers from the belief that workplace injury is expected or accepted as part of the job, to the attitude that workplace injury is unacceptable and preventable
- bringing guest speakers into the classroom to discuss safety leadership, culture and climate

## **Assessment and Evaluation: Examples and Suggestions**

### Assessment of Learning

Assessment of learning is what teachers associate with summative assessment, that is, tending to be mark driven, used to accumulate numerical data for the purpose of assigning grades. Tests, exams, and assignments given for the purpose of attaining marks fall in this group.

### Assessment for Learning

Assessment for learning, on the other hand, works to provide students with ongoing checks into how they are doing, what kind of progress they are making, and what they need to learn next in order to be successful. Student self-assessment is an important factor in assessment for learning. Anecdotal feedback, rubrics, scales, and checklists are all important ways for teachers and students to learn more about how they are doing and what they are having difficulty with.

Assessment activities, tasks, and strategies may include:

- anecdotal records
- use of artefacts
- audio recordings
- certifications
- checklists and/or surveys
- conferences or workshops
- demonstrations & dramatizations
- exhibitions
- interviews (structured or informal)
- inventories
- investigations
- learning logs or journals
- media products, eg. posters, bulletins, brochures, collages, visual, audio (digital and 'by hand')
- observations (structured or informal)
- peer assessments
- performance tasks
- presentations
- projects and reports
- individual and group discussion
- questionnaires
- quizzes, tests, examinations
- rating scales
- sorting scales (rubrics)
- self-assessments
- videos and written/oral responses
- written assignments

**Viewing videos:** post-viewing reflection and/or discussion could focus on

- the causes of the injuries to the workers
- the effect on their lives and those of their families
- the effect on their employers' businesses
- what the employers should have done to prevent the injuries
- what the employees should have done

**Using role plays** - write and present role-play scenarios showing

- positive interpersonal communication and conflict resolution
- a supervisor requiring a worker to perform a task that conflicts with his or her personal values and ethics or workplace values and ethics
- how a strong sense of workplace ethics can prevent workplace injury
- how to advise a friend who is at a difficult workplace about what to do and whom to call
- worker concerns about safety in a specific workplace, whether they have what they need to safely complete tasks or their right to refuse unsafe work
- examples of both appropriate and inappropriate conversations about workplace health and safety issues on the part of supervisors, workers and co-workers, and customers
- examples of professional and unprofessional workplace behaviour

### **Fictional Short Case-Studies**

1. Chen was employed by a large lumber mill, where he drove a forklift and moved pallets of lumber around the yard. One day, he was moving a pallet and, in the process of reversing his machine, struck Bill. Fortunately Bill survived with several vertebrae, his right arm, and his right leg broken. Bill had a reputation for being a practical joker and admitted running up behind Chen, out of his range of vision, to 'give him a scare'.

2. Jerry was employed by the town as a municipal maintenance worker. After a problem arose with a sewer line, he and another worker opened up an access cover to attend to the problem. Jerry descended into the sewer and quickly collapsed. His co-worker immediately climbed down to rescue him and also collapsed. Both men died of methane poisoning at the site, where they were later discovered by a passer-by.

3. Brianna is a part-time worker in a large building supply store. She assists customers in the kitchen and bathroom department and helps to stock shelves. One day a customer asked Brianna to reach up and get two boxes from a stack of four on the third shelf. The boxes were large but not heavy, and Brianna attempted to lift down two at once by pulling them out from the bottom of the stack. All four boxes came off the shelf at the same time, knocking Brianna to the floor where her left elbow hit the floor hard enough to shatter the bone.



4. Jacques works in a large horse stable as a trainer. Occasionally, he assists the stable hand in cleaning out stalls and turning out horses into the paddock. One day the resident stallion broke loose from the stable hand and Jacques attempted to catch the horse and put him back in his stall. As Jacques reached for the halter the stallion bit and held Jacques's left forearm in his shaking him violently about. When the stallion finally let go Jacques is battered and bruised from being flung against stalls, and has large lacerations on his forearm through which the bone can be seen. He suffers significant nerve damage, undergoes surgery to reconnect nerves and blood vessels, and even after two years still has not recovered full use of his hand.

5. Royce has been working for less than a week with a small construction company that is laying out electrical and sewer lines in a new subdivision. The job involves digging trenches, laying the pipe, and then connecting the ends in the trenches. This is Royce's first day to enter a trench to connect pipe. It has been raining, and the steeply graded sides of the trench are very soft. Almost as soon as Royce climbs down the ladder, the wet, heavy earth in one wall of the trench collapses, burying him to mid thigh. Because of the continuing risk to emergency responders, it takes hours to dig out Royce and send him to hospital.

6. Alesio and his wife, Janet, own a beef farm where they finish around a hundred head of steers each year. They grow their own forage, harvesting haylage and round bale hay every spring and summer. Alesio has been driving tractors and fixing farm equipment for many years. One day, he is mowing hay when a piece of wire hidden in the tall grass becomes caught between the tractor and the mower. Alesio gets off the tractor, and as he reaches past the power take-off (PTO) shaft to grab the wire and pull it out, the sleeve of his jacket becomes caught by the PTO. The spinning PTO pulls his sleeve and arm into its rotation, resulting in massive injury and blood loss. His son quickly arrives, finding Alesio unconscious, but still alive.

7. Rod is a drywaller with nearly 25 years of experience mudding drywall and sanding walls to a fine finish. He is very good at his job. When he was starting out 25 years ago, filter masks to prevent the inhaling of drywall dust were rarely required by employers or worn by workers. Even though the company Rod works for mandated the use of filter masks years ago, he generally puts one on only when the company manager is nearby. His immediate supervisor rarely reminds him to wear a mask. Recently, Rod has started to experience breathing problems and a bad cough. Although he has never been a smoker, he is diagnosed with emphysema and becomes unable to do the only work he is skilled in doing.

8. Jill works summers for her uncle's lawn and garden company, usually with a co-worker. She often does pruning work from ladders anywhere from two to six metres off the ground. The company's safe work practice requires that a co-worker act as spotter to steady and hold ladders at all times. One day Jill's co-worker is out sick, so she calls her uncle to let him know that the tree pruning will have to wait until the next day. He says that this will put them too far behind schedule and tells her to use the shorter, 2-metre step ladder to prune as high up as she can. While working, Jill overreaches and the ladder tips. She falls and breaks her collarbone.

9. Marion is a new worker in the kitchen of a university cafeteria, and every day from 11:30 to 1:30, the kitchen and counter staff are extremely busy. Experienced workers are always hurried, and newer workers often become overwhelmed and frazzled by the volume of work. Some supervisors see this as an acceptable way to decide which workers are suitable for the job. On the busy lasagna day, a supervisor shouts at Marion to “Get a move on!” Before she remembers to put on the long oven mitts, Marion turns and grabs a tray of lasagna from the steam table. The edges of the tray immediately burn the insides of both her arms from her elbows to her wrists.

10. Mikhail works as a continuing care assistant (CCA) in a local nursing home. His job requires him to care for elderly, often bedridden patients who cannot care for themselves. Several of Mikhail’s patients require two CCAs to safely transfer them from their beds to wheelchairs and tubs. On the day of Mikhail’s injury, the floor is short staffed, and replacement workers cannot get in right away. Mikhail knows that waiting means delaying the patients’ care and goes to the nursing supervisor for permission to begin work without another CCA present. The supervisor agrees and tells Mikhail to “be careful.” While lifting his third patient, Mikhail experiences a pain in his lower back so sharp that it takes his breath away.

11. Abraham works in a call centre and sits at a desk using a phone for almost all of the nine hours of his shift. When he was hired, the manager said his work station and chair would be adjusted to his size. As part of a safety orientation, Abraham got a headset for the phone and instructions on its use. He also watched a video about how to avoid soft tissue injuries, including stretching exercises and resting his eyes to prevent screen strain. Weeks have gone by, and his work station has not been adjusted to his size. While Abraham is doing all he can to stay injury free by wearing his headset, stretching, and resting his eyes every 20 minutes, his shoulders, neck, wrists, and forearms are killing him. He’s asked his manager several times, but nothing seems to get done. Abraham is not sure what do to next.

12. Kathryn works evenings in a food court at a shopping mall. She is a quiet, shy young woman who does not make friends easily but is a very efficient and good worker. Her supervisor is always pleased and acknowledges Kathryn’s good work, but three of her co-workers (who also go to her school) constantly tease her for this. They call her names, make nasty comments about her personal life and dump garbage where Kathryn will always have to clean it up. Her supervisor never sees any of this behaviour. Kathryn is afraid that telling him will somehow reflect badly on her, or that it will only make the bullying worse. She is having trouble sleeping, feels sick, and her marks at school are slipping.