Ergonomics Sytems Specialist (ESS) Course

Course Syllabus

Course Introduction:

This five-day certification course provides you with the tools necessary to implement an effective ergonomics process into your organization. Learn how to incorporate ergonomics programming from a systems perspective, integrating with existing safety, risk, and other business management systems. While scientific theory is the support structure for the content, this course emphasizes practical applications for field, industrial, and office environments based on case studies and proven best practices.

Let's be clear! There is only one professional certification for ergonomists in Canada, the CCPE designation offered through the Association of Canadian Ergonomists. This requires a relevant university degree and several years of direct experience. We encourage full-time practicing ergonomists to pursue this designation, but for everyone else, our ESS Workshop will give you the necessary tools to implement an effective ergonomics program in your organization.

Introduction to Ergonomics

- **Defining Ergonomics and Human Factors**
- **Ergonomic disciplines - physical, cognitive, and organizational**
- **Goals, benefits, and need indicators for ergonomics**
- **Review of relevant provincial and federal regulations & guidelines**
- **Review of relevant CSA standards**
- **The future of ergonomics**

How to sell Ergonomics and Achieve Buy-in

- **Organizational drivers for ergonomic investment**
- **Dispelling myths regarding the cost of ergonomics**
- **Identifying the true cost of musculoskeletal injuries**
- **Maximizing employee involvement and buy-in**
- **Validating findings to see the message throughout an organization**

How to Implement a Successful Ergonomics Program

- **Identify elements in an OHS management program**
- **Identify needs within the elements as it relates to ergonomics**
- **Streamlining ergonomics within the existing OHS management and other business systems**
- **Completion of gap analysis of your organization**

Overview of Occupational Injuries

- Musculoskeletal injuries (MSI's) vs. musculoskeletal disorders (MSD's)
- Mechanisms of injury for MSI's and MSD's
- Common MSD's
- Warning signs and symptoms
- Three stages of MSD development
- The critical role of fatigue
- Worker resistance to reporting

Introduction to a Formalized MSD Reduction Process

- Utilizing a systems-based approach to reduce MSD's (workSMART's 5 step MSD Reduction Process):

1. Hazard Identification
    - Hazard vs. risk
    - Safety hazards vs. MSD hazards
    - Where to begin: deciphering existing records of info (lagging indicators)
    - Breaking work to the task level
    - Introduction to physical hazards
    - Introduction to organizational hazards
    - Introduction of contributing personal factors
    - Hazard identification tools

2. Risk Assessment
    - How to avoid "analysis paralysis" and implement quick-turnaround solutions
    - Review of criteria for assessing risks associated with MSD hazards
    - Introduction of scientific and evidence-based assessment methods and tools
    - Review and selection of appropriate risk assessment method or tool
    - Introduction of workSMART's task prioritization matrix
    - Introduction of workSMART's Cumulative Risk Assessment of multiple tasks

3. Risk Control

- Introduction to workSMART's Risk Control Hierarchy
- Engineering Controls: workspace design, task design, tool and equipment design, environmental controls
- Administrative Controls: work scheduling, work pacing, work policies & procedures, environmental controls
- PPE: protection of MSI's vs. impact on MSD's
- Participatory ergonomics: establishing a task force, how to effectively brainstorm controls
- How to evaluate proposed controls
- Introduction of workSMART's cost-benefit analysis
- Implementation of process for selected controls: trials vs. pilot projects

4. Evaluation of Risk Controls

- How to measure effectiveness of a control intervention at the immediate, intermediate, and continuous level
- Threats to success
- Leading vs. lagging indicators

5. Knowledge Management

- What to do with knowledge acquired

Office Ergonomics

- Identify workstation MSD hazards
- Adjust chairs and furnishings based on body structures
- Position monitors, keyboards, and mice at appropriate levels
- Understand the importance of accessories and when application is beneficial
- Identify office environmental factors that can contribute to MSD's
- Identify office ergonomics process needs