ERGONOMICS SKILLS
Building Healthy Workplaces

The SFU Occupational Ergonomics Certificate gives students the skills required to gain a competitive edge in industry, whether as an Ergonomist, a Corporate Wellness Consultant or an Active Rehabilitation Professional. For students wanting to work in the Ergonomics profession, the academic background, skills and practical experience offered within the Occupational Ergonomics Certificate are designed to facilitate application to the Canadian Certified Professional Ergonomists.

We encourage students to become student members in the Association of Canadian Ergonomists where you can network with professionals and build volunteer hours and experience.

The Courses

BPK 180W  BPK 381  BPK 382  BPK 481  BPK 482
Introduction to Ergonomics

**Skills**

- **Identification** of risk factors for work-related musculoskeletal & psychosocial disorders

- **Navigation** of ethical ergonomic issues in the workplace

- **Familiarization** with WorkSafeBC Ergonomics Legislation

- **Ability** to conduct an ergonomic evaluation of an office, including:
  - Identifying risk-factors & proposing administrative & engineering solutions
  - Applying the ergonomic process to an office ergonomic evaluation
  - Writing a technical report documenting the evaluation process & providing recommendations

**Portfolio Samples**

- **Technical Consultants’s Report:**
  Office Ergonomics

- **Public Writing:**
  Article for WorkSafe BC Magazine

**Practical Experience**

- **Conducting** Office Ergonomics Evaluation
BPK 381
Psychology of Work

Skills

Knowledge of metrics for evaluating:
- Motivation
- Satisfaction
- Commitment
- Healthy Workspaces
- Stress

Proficiency with the following:
- Psychosocial risk factors in the workplace
- Psychological healthy workplace guidelines
- Legislation related to Human Rights in the workplace + Duty to Accommodate legislation, including drug and alcohol abuse
- Understanding of Bill 14 in British Columbia
- Ability to recommend design solutions to address psychosocial hazards
Skills

**Measure & calculate** values for variables associated with workplace health, safety & performance

**Recommend** workplace environmental control measures in terms of engineering, administrative controls & personal protective equipment

Portfolio Samples

**Analysis** of the safety system of a medium-sized company or organization

**Summary** of hazards of a specific industry, plus the employment prospects & training required

**Calculation** of an individual’s visual acuity

**Audiogram** that shows an individual’s hearing acuity

Practical Experience

**Calibrate and use** instruments to measure light, sound, vibration & temperature

**Determine** compliants of environmental measures with guidelines, standards & regulations

**Explain** selection & use of personal protective equipment
BPK 481
Musculoskeletal Disorders

Skills

Assemble evidence from job analysis, physical examination & history

Use this evidence to suggest patho-anatomical disorder, probable causes & preventive measures

Advocate for an injured worker applying for compensation

Design strategies for the management of specific musculoskeletal disorders

Portfolio Samples

Job description for a specific job

Task analysis for a specific job

Photographs of risky working postures

Identify risk level for a particular working posture

Report summarizing risk of musculoskeletal injuries

Letter of transmittal to workplace supervisor

Case study of a person with a musculoskeletal injury

Practical Experience

View videos of people at work and sport, and identify risky elements

Describe steps required to do a particular task

Identify & quantify risky features of tasks

Review case studies of people with musculoskeletal injuries
Skills

**Develop** an understanding of the importance of return to work programs in developing healthy individuals, societies & organizations.

**Navigate** return to work legislation and policies in the workplace and understand implications.

**Analyze** the range of user needs, limitations & capabilities within the workplace.

**Integrate** strategies to support an effective return to work program.

**Interpret** a functional capacity evaluation.

**Conduct** a physical demands analysis.

**Perform** a task analysis.

**Complete** an occupational biomechanical analysis.

**Apply** anthropometrics to evaluate & design equipment, tools & environments.
Hands on experience with the latest assessment tools, including:

- ACGIH TLV + Low Back SNOOK Tables
- NIOSH Lifting Equations
- MITAL Tables
- REBA/RULA
- 3DSSPP
- Motion Analysis
- Electrogoniometers
- Force transducers
- ...and more

Portfolio Samples

Technical Consultant’s Report
Final Project Presentation to Client
Completed Physical Demands Assessment
Occupational Biomechanical Assessments

Practical Experience

Minimum 33 hours in return to work/ergonomic program in the workplace

Resources

More information about the Ergonomics certificate program at SFU BPK can be found at www.sfu.ca/bpk