

BIOMEDICAL PHYSIOLOGY AND KINESIOLOGY CERTIFICATE IN OCCUPATIONAL ERGONOMICS



Who Should Apply?

The BPK Certificate in Occupational Ergonomics targets a labour market growth area: the science and design of healthy, productive workplaces. It is designed for **Kinesiology majors** in the Active Health and Rehabilitation concentration who either wish to pursue a career in ergonomics or apply ergonomic principles within another profession (physiotherapy, occupational therapy, disability management, health and safety, and more). Students will learn the essential foundations of occupational ergonomics and will gain skills in risk assessment, evaluation and control, return to work processes, knowledge translation, and effective communication. The certificate is also appropriate for qualified* **professionals** in the areas of occupational rehabilitation, corporate well-ness, and occupational health & safety who wish to augment their ergonomic knowledge and skills.

Why Occupational Ergonomics?

Ergonomics is in demand and predicted to grow in the future**:

- Companies want to prevent increasingly costly work place injuries
- The aging workforce demands products, technology and work environments that are designed to meet their needs and capabilities
- Effective return to work after injury requires a multidisciplinary team where ergonomists can play a significant role
- Psychosocial issues in the workplace are increasingly seen as important factors in injury prevention and rehabilitation, and health and wellness in the workplace
- International standards and National and Provincial legislation in ergonomics is driving the need for ergonomic programs and policy

Career Opportunities

Ergonomics is a multidisciplinary science and can lead to the following careers:

- **Occupational Ergonomists** addressing health and safety issues in the workplace
- **Return to Work Specialist** facilitating the return to work process
- **Training specialist** providing ergonomics training to organizations
- **Standards and Regulation Developer**
- **Corporate or Research Ergonomists**
- **Workplace Wellness Professionals**

* Professionals will need to apply to SFU, meet the general admission requirements, and then apply for approval into this Certificate program. Approval forms are available on the BPK website.

** The U.S Department of Labor identified Ergonomists and Human Factors Engineers as one of the Eight Emerging Careers for 2013, and *The Globe and Mail* and *The Seattle Times* point to Occupational Ergonomics as a growing area of future employment.

Certificate Requirements

Students in the Kinesiology Major and professionals need to apply for approval into the certificate program. The certificate requires 24 units, 12 of which are required with the remaining 12 selected from a list of electives. The following courses make up the requirements:

All of:

BPK 180W Introduction to Ergonomics
BPK 381 Psychology of Work
BPK 481 Activity-Generated Musculoskeletal Disorders
BPK 482 Ergonomics and Rehabilitation

And four of:

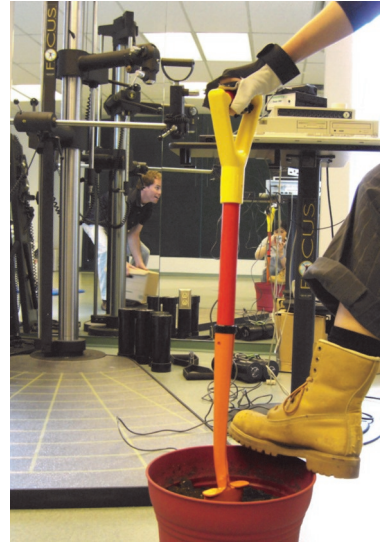
BPK 303 Kinanthropometry
BPK 382 Workplace Health and Safety
BPK 310 Exercise/Work Physiology
BPK 343 Active Health: Assessment and Programming
BPK 402 Mechanical Properties of Tissues
BPK 415 Neural Control of Movement
BPK 426 Neuromuscular Anatomy
BPK 448 Rehabilitation of Movement Control
BPK 484 Altitude and Aerospace Physiology
BPK 496 Directed Studies I
BPK 498 Directed Studies II

Learning Outcomes

After completing the certificate, students and professionals are able to:

- Develop a framework of strategies to facilitate life-long learning in Ergonomics
- Engage systems analysis techniques to address ergonomic concerns in the workplace
- Analyze the range of user needs, limitations and capabilities within the workplace
- Use best practices to select defensible assessment tools and solutions
- Translate research-based knowledge of Ergonomics to the workplace
- Integrate ergonomics strategies to develop healthy individuals, organizations and environments

Note: The Occupational Ergonomics Certificate meets a significant portion of the Professional Certification Requirements of the Association of Canadian Ergonomists.



Need More Information?

For more information on the program and how to apply, please contact:

Anne-Kristina Arnold
Phone: 778.782.5213
Email: aarnolda@sfu.ca