Advanced Ergonomic Studies
School of Health Sciences
ADE1 - Advanced Ergonomic Studies

This program has been permanently suspended.

Program Description

If you have a background in kinesiology or just like observing how people and products work together, how workplaces and environments influence our interactions and well-being, then our one-year Advanced Ergonomics Studies graduate certificate program is for you.

Fanshawe's advanced ergonomics training focuses on the concepts of human-centered design and the optimization of the workplace to prevent injuries. The program is led by seasoned professional ergonomists and classroom learning is reinforced with hands-on labs that utilize the diversity of workplaces at the Fanshawe campus and field placements that will put your analytical tools to the test. You'll provide injury prevention and universal design recommendations using a variety of technologies and techniques including exoskeletons, wearables and virtual reality to evaluate and optimize worker and workspace interactions. There are many career opportunities in this growing field.

Document of Recognition
Advanced Ergonomic Studies Graduate Certificate

Program Type
A One-Year Ontario College Graduate Certificate

Learning Outcomes

- Assess worker-machine and worker-workplace interactions and ergonomics concerns using current technologies and appropriate qualitative and quantitative techniques. added for HCI course
- Identify the mechanisms and causes of injury in a variety of workplace settings, and recommend appropriate assistive tools and workplace modifications to reduce the potential for workplace injury.
- Synthesize information about the elements of an ergonomically sound workplace or product to guide study design, evaluation, and/or proposed intervention.
- Analyze the cost-effectiveness of control methods and their value in mitigating the financial impacts of risk in the workplace.
- Prepare succinct technical reports and design specifications that include conclusions and recommendations that are supported by the analysis of data and the relevant scientific literature.

- Collaborate and communicate effectively across functional teams and levels of management to influence effective workplace outcomes.
- Recommend workstation, equipment, and tool design changes based on the application of anthropometric tables and calculations.
- Examine the impact of biophysical and psychosocial factors including human perception and information processing on an individual's performance in the workplace.

Career Information

Fanshawe's Advanced Ergonomics Studies graduate program provides graduates with theoretical and practical knowledge to optimize how products, environments and systems can effectively influence how people interact and engage each other. Career opportunities are diverse and may involve physical ergonomics and/or cognitive ergonomics in a variety of sectors, including health care, industry and manufacturing, government, utilities, software companies and consultancies. Job titles vary by the sector and area of specialization, but include ergonomist, occupational health and safety specialist, human factors engineer and product designer.

Did you know Fanshawe consistently ranks high in graduation employment rates among large colleges in Ontario? The advanced ergonomics graduates have over an 86% employment rate. Here are some examples of career opportunities for graduates of Fanshawe's Advanced Ergonomic Studies program:

- Ergonomist, Automotive sector: The design of parts, processes and products. Work with engineers, management and workers to assess, design and optimize the workplace to prevent injuries.
- Environmental, Health and Safety Coordinator: Ergonomics is a key component of environmental health and safety compliance. Our Advanced Ergonomics Studies graduates bring unique skills to health and safety teams.

Field Placement Information

- Ability at Work (Kitchener)
- Air Canada (Mississauga)
- Cambridge Memorial Hospital (Cambridge)
- Cargill (Mississauga)
- Ergonomics for Manufacturing (Hanover)
- ergoNow (Windsor)
- General Dynamics Land Systems (London)
- Hamilton Health Sciences (Hamilton)
- Hospital for Sick Children (Toronto)
- Igloo Software (Kitchener)
- Injury Prevention Plus (Ottawa)
- Kingston General Hospital (Kingston)

- Labatt (London)
- London Health Sciences Centre (London)
- Municipality of Chatham-Kent (Chatham-Kent)
- Occupational Health Clinics for Ontario Workers (Hamilton)
- Occupational Health Clinics for Ontario Workers (Windsor)
- Optimal Fit Inc. (Calgary)
- Regional Municipality of Waterloo (Waterloo)
- Royal Victoria Regional Health Care (Barrie)
- S.C. Johnson (Brantford)
- Toyota (Cambridge)
- Toyota (Woodstock)
- Union Gas (Chatham)
- University of British Columbia (Vancouver)
- Woodbridge Foam (Blenheim)

Admission Requirements
- A Degree in Kinesiology or Human Kinetics
OR
- Successful completion of the following university or college courses (as determined by the College):
  - Anatomy
  - Physiology
  - Biomechanics
  - Qualitative and Quantitative Design and Analysis

Approximate Costs
Fee details are available at www.fanshawec.ca/fees

Contact
School of Health Sciences: 519-452-4207

Campus Codes and Intakes
- Program Code: ADE1
- Campus Code: LC (London Campus)
- September Admission
- 38 Weeks
- Academic Calendars available at www.fanshawec.ca/academicdates

Applicant Selection Criteria
Where the number of eligible applicants exceeds available spaces, the Applicant Selection Criteria for this program will be:

- Preference for Permanent Residents of Ontario
- Receipt of Application by February 1st (After this date, Fanshawe College will consider applicants on a first-come, first-served basis until the program is full)
- Achievement in the Admission Requirements

English Language Requirements
Applicants whose first language is not English will be required to demonstrate proficiency in English by one of the following methods:

- A Grade 12 College Stream or University Stream English credit from an Ontario Secondary School, or equivalent, depending on the programâ€™s Admission Requirements
- Test of English as a Foreign Language (TOEFL) test with a minimum score of 88 for the Internet-based test (iBT), with test results within the last two years
- International English Language Testing System (IELTS) Academic test with an overall score of 6.5 with no score less than 6.0 in any of the four bands, with test results within the last two years. SDS Program Requirements
- Canadian Academic English Language (CAEL) test with an overall score of 70 with no score less than 60 in any of the four bands, with test results within the last two years
- Pearson Test of English Academic (PTE) with a minimum score of 59, with test results within the last two years
- Cambridge English Test (FCE/CAE/CPE): with an overall score on the Cambridge English Scale of 176 with no language skill less than 169, with test results within the last two years
- Fanshawe College ESL4/GAP5 students: Minimum grade of 80% in ESL4/GAP5 Level 9 or 75% in ESL4/GAP5 Level 1

Program Pathways
For information about Program Pathways visit www.fanshawec.ca/programpathways.

Program Curriculum
Level 1
Take all of the following Mandatory Courses:
ERGO-6006 Ergonomics Theory & Practice - Credits 4.50
ERGO-6011 Research Methods & Statistics - Credits 5.00
ERGO-6004 Human-Computer Interactions - Credits 2.00
ERGO-6012 Safety in the Workplace - Credits 3.00

Level 2
Take all of the following Mandatory Courses:
ERGO-6005 Research in Ergonomics - Credits 3.00
ERGO-6007 Ergonomics Instrumentation - Credits 4.50
ERGO-6009 Human Factors & Design - Credits 4.00
ERGO-6001 Professional Development - Credits 2.00
ERGO-6003 Ergonomics & Legislation - Credits 2.00

Level 3
Take the following Mandatory Course:
FLDP-6016 Field Placement - Credits 8.00