



ME 765 HUMAN BEHAVIOUR IN FIRE

taught by

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Adjunct Professor, UWaterloo**

an asynchronous modular course for:

- Architects
- Building Consultants
- Engineers
- Regulatory Officials
- Designers

Spring (May–Aug.) 2026

Available in online format



Fire Safety at UWaterloo

The UW Fire Safety Program is a graduate studies and professional development program. Students take a range of fire safety courses in hybrid and video lecture format towards MEng, MASc, PhD or Certificate Programs. For students in industry, the four course, independent UW Departmental Certificate in Fire Safety may be for you!

Online, asynchronous courses use lecture recordings from previous, week-long (40 hour) hybrid lecture course offerings. These courses are available with graded course work due during the term.



[Course Registration](#)



[Fire Safety Program](#)

Course Outline

This course on Human Behaviour in Fire:

- Introduces notions of human behaviour in fires, including cognition, perception, problem solving, decision-making, and information processing;
- Identifies issues linked to escape time including delay in response and people movement;
- Presents techniques for data gathering on human behaviour in fire and associated ethics; and
- Gives students an opportunity to practice using various evacuation analysis tools and discover model limitations and uncertainties.

Course material (handouts, assignments, project, and supplemental materials) are mounted to a course website. Registered students can access lecture videos asynchronously.

Looking for more information?

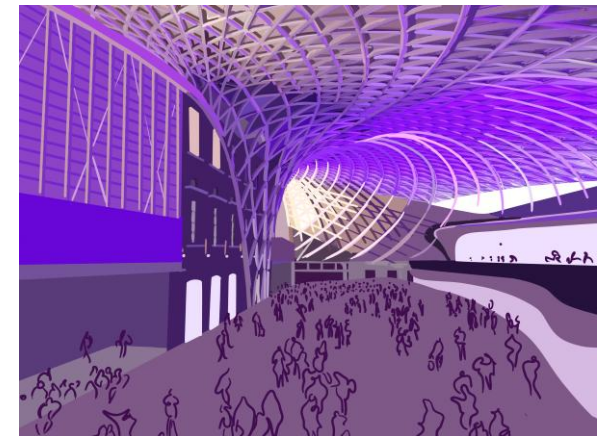
Contact the [Fire Safety Program Coordinator](#)

COURSE TOPICS

- Module 1: Introduction to Human Behaviour in Fire
- Module 2: Environmental Psychology and Cognition
- Module 3: Fire Strategies and Behavioural Concepts
- Module 4: Decision Making and Affordance
- Module 5: Ethics in Data Collection
- Module 6: Data Collection
- Module 7: Movement Calculation
- Module 8: Movement Modelling Tutorial

MOVEMENT MODELLING TUTORIAL

Students gain experience in the use of various tools associated to evacuation analysis by computational modelling or hand calculations. Real-life limitations and uncertainty in these tools are discussed.



PROJECTS & EVALUATION

One independent project allows students to pursue a novel research study that matches their interests with project deliverables of a:

- Proposal,
- Report, and
- (Filmed) Presentation.

Assignments and the course project are used in the evaluation of each student. Due dates and mark weightings are provided at the beginning of term.