University of Waterloo
Fire Research Group

Fire Safety Graduate Courses

Fire Safety courses at University of Waterloo (UW) are offered in a one week-long, intensive, synchronous lecture format (approximately 36-40 hours) with lab exercises and demonstrations during the week. Courses are delivered by internationally recognized guest lecturers in an interactive, hybrid format with Microsoft Teams or Zoom enabled interaction for remote students. All lectures are recorded and made available to registered students for asynchronous work through dedicated coursework sites. Subsequent asynchronous courses are also offered.



↓ MORE INFORMATION ↓

FLEXIBILITY

Each credit-based student is provided a program plan on admission. The lecture portion of the courses is offered prior to or at the beginning of a UW term (winter, spring or fall) and the coursework is electronically submitted over the term for grading. This gives each student ample time to fit in course work while also balancing their everyday workload from their job. Exams are not included in any of the offered courses, so students are able to take the entire program in class or interactively online. As necessary, there is an option to take a course using only the recorded lectures. Any mix of attendance options is allowed as well. We offer all courses individually on a credit- or attendance-only basis for professional development. Credits can be used to fulfil the requirements for MEng, MEng (G.Dip. Fire Safety), MASc, PhD or 4-course (non-degree) certificate programs.

COURSEWORK

Handouts, assignments, projects, etc. are available through UW LEARN, Teams or via Dropbox for each course. When possible, assignments are designed to test students on key concepts in a course; projects and case studies focus on applications and can be individually tailored to the interests of each student's industry.

COURSE OFFERINGS

Winter (Jan. 11-15) ME 672 - **Advanced Fire Dynamics**, Synchronous, Dr. N. Ryder

Winter (Jan. 25-29) ME 671 - **Fire Dynamics**, Synchronous, Prof. V. Gupta

Spring (May 17-21) ME 770 - **Fire Testing**, Synchronous, Prof. D. Torvi

Spring Term Asynchronous: ME 671 - **Fire Dynamics**, ME 673 - **Fire Modelling**

Fall (Aug. 9-13) ME 720 - **Fire Resistance**, Synchronous, Prof. V. Kodur

Fall (Sep. 20-24) ME 673 - **Fire Modelling**, Synchronous, Various Guest Lecturers

Winter 2028 ME 765 - **Human Behaviour in Fire**, Prof. J. Gales

Also in 2028: ME 770 - **Fire Risk,** ME 765 - **Advanced Fire Investigation,** ME 671 - **Fire Dynamics**, ME 673 - **Fire Modelling**, and other special offerings

UNIVERSITY OF WATERLOO | FACULTY OF ENGINEERING
Department of Mechanical and Mechatronics Engineering