

BLDG 3014 INTRODUCTION TO BUILDING FIRE SAFETY

Credit Points 10

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Description This subject provides the foundations in fire safety engineering principles and the techniques and tools used in building fire safety design. Students learn the key principles of fire and heat transfer, building material and cladding systems' behaviours in fire, fire testing methods, fire-damage assessment methods, and concepts of performance-based building fire safety design. Using examples of fire engineering briefs and reports, students expand their knowledge and skills in real-world contexts. It also builds the skills required for a work-ready graduate and allows the student to plan, undertake and report on a specific aspect of practice in the context of their work.

School Eng, Design & Built Env

Discipline Building Construction Management

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Assumed Knowledge

Basic mathematics and Physics as taught at HSC level is required.

Learning Outcomes

1. Demonstrate understanding of the basic principles of fire dynamics and fire safety design in building.
2. Analyse fire properties of building materials.
3. Apply regulations, standards and fire safety principles to different building structures and materials.
4. Assess active and passive fire protection systems to reduce fire hazards in a building.
5. Interpret fire engineering briefs and reports.

Subject Content

- Fire safety for buildings
- Fires and heat
- Heat transfer to the structure
- Structural fire design principles
- Fire behaviour of building materials
- Cladding of multi-storey buildings in fire
- Fire testing methods and standards
- Assessment of fire-damaged building
- Passive fire protection systems
- Active fire protection systems
- Fire systems design for extinguishers, hose reels and hydrants
- Fire engineering brief and report

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are

regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group	Mandatory Task
Quiz	3 x Online Quizzes, 30 minutes (per Quiz)	30	N	Individual	N
Case Study	1500 words equivalent	30	N	Individual	N
Report	3000 words equivalent	40	N	Group	N

Teaching Periods

Spring (2025)

Online

Subject Contact Md Kamrul Hassan (<https://directory.westernsydney.edu.au/search/name/Md Kamrul Hassan/>)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BLDG3014_25-SPR_ON_2#subjects)