

BLDG 7004 BUILDING IN BUSHFIRE PRONE AREAS

Credit Points 10

Legacy Code 200458

Coordinator Grahame Douglas ([https://directory.westernsydney.edu.au/search/name/Grahame Douglas/](https://directory.westernsydney.edu.au/search/name/Grahame%20Douglas/))

Description This subject describes the basis for the design and construction of buildings to withstand bushfire attack, the measures that can be incorporated into building design to achieve this and the legislative building requirements affecting bushfire environments. The subject examines the mechanisms of bushfire attack on structures, the role of landscaping on building survival and how materials perform in the presence of a bushfire event. The subject describes the role of the Building Code of Australia (BCA) and Australian Standards in the construction of various building types and the legislative and regulatory environment in which this operates.

School Eng, Design & Built Env

Discipline Building Construction Management

Student Contribution Band HECS Band 2 10cp

Level Postgraduate Coursework Level 7 subject

Restrictions

Students must be enrolled in a postgraduate program.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Identify and explain the building legislation for various buildings in bushfire prone areas;
2. Discuss the relationship between bushfire attack and building performance;
3. Describe the role of landscaping in propagating bushfire in the urban interface environment;
4. Describe the various design options available to improve building survivability during a bushfire; and
5. Review the options available for construction of buildings so as to comply with building legislation, particularly with respect to the role of Australian Standards.

Subject Content

Overview of architectural issues for the building envelope;
 Ignition of buildings in bushfires - the mechanisms operating (bushfire attack);
 Design options for improved building performance;
 Upgrading existing buildings;
 Building Code of Australia deemed to satisfy and performance requirements;
 Australian Standard for construction in bushfire prone areas - AS 3959;
 Maintenance of building envelope for bushfire performance
 Landscaping for bushfire prone areas

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 Task
Short Answer	1000w - short essay questions. Students must achieve at least 40% in this task to achieve an overall pass for the unit	20	N	Individual
Essay	2000w - essay. Students must achieve at least 40% in this task to achieve an overall pass for the unit	25	N	Individual
Report	3000w - major report. Students must achieve at least 40% in this task to achieve an overall pass for the unit	35	N	Individual
Critical Review	1,500 words	20	N	Individual

Teaching Periods

Spring (2022)

Parramatta City - Macquarie St Composite

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BLDG7004_22-SPR_PC_C#subjects)

Spring (2023)

Parramatta City - Macquarie St Hybrid

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BLDG7004_23-SPR_PC_3#subjects)