## ENGR 7027 SPATIAL TOOLS AND MAPPING

**Credit Points** 10

Legacy Code 301264

Coordinator Grahame Douglas (https://directory.westernsydney.edu.au/search/name/Grahame Douglas/)

Description This subject offers practical applications in spatial information software. Students will be taught using Geographical Information Systems (GIS) software to prepare maps (such as bushfire prone land) as well as management plans required of planning and design practitioners. Workshops are provided to assist students in the practical use of the GIS system. Students are provided with online module notes and readings as well as assignments being submitted online. Emphasis is placed on teaching students practical software applications skills relevant to industry needs.

School Eng, Design & Built Env

Student Contribution Band HECS Band 2 10cp

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

Level Postgraduate Coursework Level 7 subject

## **Learning Outcomes**

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

- Recognise and apply the capabilities of spatial software tools in a professional context.
- Input, model and analyse data and systems using industry standard spatial software.
- Apply spatial modelling and analysis tools to professionally represent environmental measures of a specific development proposal.
- 4. Apply software-generated imagery to support planning and construction reports, findings and recommendations.

## **Subject Content**

- 1. Introduction to GIS
- 2. GIS Applications
- 3. Key Concepts
- 4. Introduction to emergency and environmental risk management planning
- 5. GIS and other software applications
- 6. GIS analysis tools
- 7. GIS mapping layouts
- 8. Bushfire Prone Land Mapping Guidelines
- 9. Bushfire Protection/Management Plans and other environmental management plans

## 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.

Туре	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Short Answer	1,000 words	25	N	Individual	Υ
Applied Project	1,000 words	25	N	Individual	Υ
Applied Project	2,000 words plus mapping	50	N	Individual	Υ