

# ENGR 7019 SPECIALISED SOFTWARE APPLICATIONS

**Credit Points** 10

**Legacy Code** 301002

**Coordinator** Olivia Mirza ([https://directory.westernsydney.edu.au/search/name/Olivia Mirza/](https://directory.westernsydney.edu.au/search/name/Olivia%20Mirza/))

**Description** This unit offers several streams of practical applications in engineering and industrial design software. Students get to choose a software application stream depending on their key program. Lectures and assignments are delivered online and are enhanced by face to face contact with stream coordinators. Emphasis is placed on teaching students practical software applications skills relevant to industry needs.

**School** Eng, Design & Built Env

**Discipline** Other Engineering And Related Technologies

**Student Contribution Band** HECS Band 2 10cp

**Level** Postgraduate Coursework Level 7 subject

**Equivalent Subjects** ELEC 7007 - Engineering Software Applications

## Restrictions

Students must be enrolled in a postgraduate program. Please note: Students enrolled in 3693 Master of Engineering must select the campus offering, not the online mode.

## Learning Outcomes

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

1. Recognise and apply the capabilities of software tools in a professional engineering context.
2. Input, model and analyse data and systems using industry standard engineering software.
3. Apply computer based modelling and analysis tools to investigate and professionally report on a specific, in-depth engineering problem.
4. Apply software-generated imagery to support reported analysis, findings or recommendations.

## Subject Content

3D CAD

Excel

MATLAB Applications - Telecommunications

MATLAB Applications - Civil Engineering

Finite Element Analysis in Electromagnetism

Abaqus for Civil Engineering

Surface Hydrology Modelling

CFAST/FDS - Fire Safety Engineering

GIS - Bushfire Protection

## 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.

Item	Length	Percent	Threshold	Individual/ Group Task
Numerical Problem Solving	2000 words	25	N	Individual
Quiz	1 hour	25	Y	Individual
Numerical Problem Solving	4000 words	50	N	Individual

Teaching Periods

## Summer A

### Parramatta City - Macquarie St

#### Day

**Subject Contact** Maryam Hosseini ([https://directory.westernsydney.edu.au/search/name/Maryam Hosseini/](https://directory.westernsydney.edu.au/search/name/Maryam%20Hosseini/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=ENGR7019\\_22-SUA\\_PC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR7019_22-SUA_PC_D#subjects))

## Autumn

### Parramatta City - Macquarie St

#### Day

**Subject Contact** Olivia Mirza ([https://directory.westernsydney.edu.au/search/name/Olivia Mirza/](https://directory.westernsydney.edu.au/search/name/Olivia%20Mirza/))

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