ENGR 7019 SPECIALISED SOFTWARE APPLICATIONS

Credit Points 10

Legacy Code 301002

Coordinator Baolin Wang (https://directory.westernsydney.edu.au/search/name/Baolin Wang/)

Description This subject 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

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

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

1. MATLAB Applications – Telecommunications
2. MATLAB Applications – Civil Engineering
3. Finite Element Analysis in Electromagnetism
4. Abaqus for Civil Engineering
5. Surface Hydrology Modelling
6. CFAST/FDS – Fire Safety Engineering
7. GIS – Bushfire Protection
8. Specialised Software for Vertical Transportation
9. Ansys Mechanical APDL for Mechanical and Mechatronic
10. MATLAB Applications – Mechanical and Mechatronic
11. Workbench for Mechanical and Mechatronics Engineering
12. MATLAB Applications – Environmental Engineering

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
Numerical Problem Solving	2000 words	25	N	Individual
Quiz	1 hour	25	N	Individual
Numerical Problem Solving	4000 words	50	N	Individual

Teaching Periods

Autumn (2024)

Parramatta City - Macquarie St

On-site

Subject Contact Olivia Mirza (https://directory.westernsydney.edu.au/search/name/Olivia Mirza/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR7019_24-AUT_PC_1#subjects)