

# ENGR 1045 ENGINEERING PROGRAMMING FUNDAMENTALS

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**Credit Points** 10

**Legacy Code** 301335

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

**Description** An introduction to problem-solving via programming, which aims to have students develop proficiency in using a high level programming language. Topics covered in this unit include: algorithms, program structures (statements, sequence, selection, iteration, functions), data types (numeric, character), data structures (arrays, tuples, pointers, lists), storage structures (memory, addresses), introduction to analysis of algorithms, testing, code quality, teamwork, and reflective practice. The unit includes extensive practical work in labs and programming projects.

**School** Eng, Design & Built Env

**Discipline** Engineering and Related Technologies, Not Elsewhere Classified.

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

Check your HECS Band contribution amount via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 1 subject

## Assumed Knowledge

HSC Physics and HSC Mathematics Extension 1 or HSC Mathematics Extension 2. HSC Two units of Science and HSC two units of English.

## 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
Practical	2 hours	20	N	Individual
Report	2 hours (each) (2 submissions at 20% each)	40	N	Individual
Final Exam	6 hours	40	N	Individual

Teaching Periods

## Autumn

**Parramatta City - Macquarie St**

### Day

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=ENGR1045\\_22-AUT\\_PC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1045_22-AUT_PC_D#subjects))