Overview

Programming languages form the underpinnings of all software development. Over the years, computer scientists have identified a number of major programming paradigms and developed a wide variety of programming languages based on these, ranging from general purpose languages to application specific languages. The study of programming languages gives valuable insights into the nature of computation in all of its manifestations.

The Programming Languages stream in the Computer Science program exposes students to the foundations of programming languages, how they are designed, how they are implemented, and how they might best be exploited by programmers. The stream considers procedural languages, functional languages, object-oriented languages and parallel languages.
Faculty
Faculty of Engineering

School
School of Computer Science and Engineering

Study Level
Undergraduate

Minimum Units of Credit
96

Specialisation Type
Major
Available in Program(s)

Program(s) in which this major is available

Bachelor of Science - BSc
3778 Computer Science
Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 Years
Specialisation Structure

Students must complete 96 UOC.

Core Course

Students must take 72 UOC of the following courses.

COMP1511  |  6 UOC
Programming Fundamentals

COMP1521  |  6 UOC
Computer Systems Fundamentals

COMP1531  |  6 UOC
Software Engineering Fundamentals

COMP2511  |  6 UOC
Object-Oriented Design & Programming

COMP2521  |  6 UOC
Data Structures and Algorithms

COMP3121  |  6 UOC
Algorithms and Programming Techniques

COMP3161  |  6 UOC
Concepts of Programming Languages

COMP3900  |  6 UOC
Computer Science Project

COMP4920  |  6 UOC
Management and Ethics
MATH1081 | 6 UOC
Discrete Mathematics

One of the following:
MATH1131 | 6 UOC
Mathematics 1A

MATH1141 | 6 UOC
Higher Mathematics 1A

One of the following:
MATH1231 | 6 UOC
Mathematics 1B

MATH1241 | 6 UOC
Higher Mathematics 1B

**Computing Electives**

Students must complete 6 UOC of Computing courses (COMP3xxx or higher).

* any level 3 Computer Science course

* any level 4 Computer Science course

* any level 6 Computer Science course

* any level 9 Computer Science course

**Discipline Electives**

Students must take at least 18 UOC of the following courses.

COMP3131 | 6 UOC
Programming Languages and Compilers

COMP3141 | 6 UOC
Software System Design and Implementation
COMP3151 | 6 UOC
Foundations of Concurrency

COMP6771 | 6 UOC
Advanced C++ Programming

Enrolment Disclaimer

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions
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Authorised by Deputy Vice-Chancellor (Academic)
CRICOS Provider Code 00098G
ABN: 57 195 873 179