Computer Science (Programming Languages)

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
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.
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