Overview

Networks are critical infrastructure in modern society, and look set to grow in importance in the future. Business, finance, health services, education, defence and leisure all rely on the existence of a stable, secure, fast, high-capacity network. Computing professionals with a deep understanding of networks will be in high demand for the foreseeable future both to maintain and enhance existing network infrastructure (especially mobile networks), and to develop new forms of networking.

The Computer Networks stream in the Computer Science program exposes students to the foundations of computer networks, their architecture, their management and emerging application areas, such as the Internet of Things.
<table>
<thead>
<tr>
<th><strong>Faculty</strong></th>
<th>Faculty of Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School</strong></td>
<td>School of Computer Science and Engineering</td>
</tr>
<tr>
<td><strong>Study Level</strong></td>
<td>Undergraduate</td>
</tr>
<tr>
<td><strong>Minimum Units of Credit</strong></td>
<td>96</td>
</tr>
<tr>
<td><strong>Specialisation Type</strong></td>
<td>Major</td>
</tr>
</tbody>
</table>
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 Courses**

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

- **COMP3331 | 6 UOC**
  Computer Networks and Applications

- **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

One of the following:
COMP3121 | 6 UOC  
Algorithms and Programming Techniques

COMP3821 | 6 UOC  
Extended Algorithms and Programming Techniques

**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.

COMP4336 | 6 UOC  
Mobile Data Networking
<table>
<thead>
<tr>
<th>Course Code</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP4337</td>
<td>6</td>
</tr>
<tr>
<td>Securing Fixed and Wireless Networks</td>
<td></td>
</tr>
<tr>
<td>COMP6733</td>
<td>6</td>
</tr>
<tr>
<td>Internet of Things Experimental Design Studio</td>
<td></td>
</tr>
<tr>
<td>COMP9332</td>
<td>6</td>
</tr>
<tr>
<td>Network Routing and Switching</td>
<td></td>
</tr>
<tr>
<td>COMP9334</td>
<td>6</td>
</tr>
<tr>
<td>Capacity Planning of Computer Systems and Networks</td>
<td></td>
</tr>
</tbody>
</table>

**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