Computer Science

Year and Campus: 2016

Coordinator: Dr Aaron Harwood

Contact: sharwood@unimelb.edu.au (mailto:sharwood@unimelb.edu.au)

Overview: The Graduate Diploma allows students who have completed an undergraduate degree to re-focus or expand their body of knowledge by completing the requirement of one of the undergraduate majors (or equivalent) in the Bachelor of Science not already completed. The Graduate Diploma provides a pathway to the Master of Science Streams.

Learning Outcomes: Students who complete the graduate diploma should:

- Demonstrate an independent approach to knowledge that uses rigorous methods of inquiry and appropriate theories and methodologies that are applied with intellectual honesty and a respect for ethical values;
- Apply critical and analytical skills and methods to the identification and resolution of problems;
- Act as informed and critically discriminating participants within the community of scholars, as citizens and in the work force;
- Communicate effectively;
- Commit to continuous learning;
- Be proficient in the use of appropriate modern technologies, such as the computer and other information technology systems, for the acquisition, processing and interpretation of data.

Structure & Available Subjects: Completion of 125 points:

- 50 points of study at Level 2 or above;
- 50 points of study at Level 3;
- 25 point of study at Level 9

Subject Options: Subject prerequisites: For stream specific requirements please click here (http://science.unimelb.edu.au/available-stream-requirements%20).

Level 2

Students should select 37.5 points of level 2 options to meet the pre-requisites for their level 3 choices.

Students must take:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Study Period Commencement</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO20003 Database Systems</td>
<td>Semester 2</td>
<td>12.50</td>
</tr>
</tbody>
</table>

Plus one of:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Study Period Commencement</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWEN20003 Object Oriented Software Development</td>
<td>Semester 2</td>
<td>12.50</td>
</tr>
<tr>
<td>COMP90041 Programming and Software Development</td>
<td>Semester 1, Semester 2</td>
<td>12.50</td>
</tr>
</tbody>
</table>

Plus one of:

<table>
<thead>
<tr>
<th>Subject</th>
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<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP20003 Algorithms and Data Structures</td>
<td>Semester 2</td>
<td>12.50</td>
</tr>
<tr>
<td>Subject</td>
<td>Study Period Commencement</td>
<td>Credit Points</td>
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<tr>
<td>----------------------------------------------</td>
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</tr>
<tr>
<td>COMP90038 Algorithms and Complexity</td>
<td>Semester 1, Semester 2</td>
<td>12.50</td>
</tr>
<tr>
<td>COMP20007 Design of Algorithms</td>
<td>Semester 1</td>
<td>12.50</td>
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</table>

**Level 3**

All three of:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Study Period Commencement</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP30023 Computer Systems</td>
<td>Semester 1</td>
<td>12.50</td>
</tr>
<tr>
<td>COMP30026 Models of Computation</td>
<td>Semester 2</td>
<td>12.50</td>
</tr>
<tr>
<td>SWEN30006 Software Modelling and Design</td>
<td>Semester 1, Semester 2</td>
<td>12.50</td>
</tr>
</tbody>
</table>

Plus two of:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Study Period Commencement</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP30022 IT Project</td>
<td>Semester 2</td>
<td>12.50</td>
</tr>
<tr>
<td>COMP30024 Artificial Intelligence</td>
<td>Semester 1</td>
<td>12.50</td>
</tr>
<tr>
<td>COMP30019 Graphics and Interaction</td>
<td>Semester 2</td>
<td>12.50</td>
</tr>
<tr>
<td>INFO30004 Usability Engineering</td>
<td>Semester 1</td>
<td>12.50</td>
</tr>
<tr>
<td>INFO30005 Web Information Technologies</td>
<td>Semester 1</td>
<td>12.50</td>
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</table>

**Level 9**

Plus two level 9 subjects selected from listed discipline subjects in the [Master of Science (Computer Science)](http://graduate.science.unimelb.edu.au) program

**Links to further information:**

http://graduate.science.unimelb.edu.au

**Related Course(s):**

Graduate Diploma in Science