# Master of Computing

## Machine Learning Specialisation

**Instructions**

1. Make sure that you are familiar with the program requirements of your degree.
2. Make sure you are following the program requirements for the academic year that you commenced your degree.
3. Fill in the boxes once you have successfully passed the course (or if you have been awarded course credit or exemption).
4. Ensure that you have completed the minimum unit requirements for each section.
5. Always check your enrolments with CECS Student Services to ensure that you are on track to graduate.

The Master of Computing requires completion of 96 units, of which:

A minimum of 6 courses must come from completion of 8000-level courses.

<p>| | | | | | |</p>
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

### Compulsory Courses

Complete the 5x courses listed below

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP6710</td>
<td>Structured Programming</td>
<td>6</td>
</tr>
<tr>
<td>COMP6250</td>
<td>Professional Practice 1</td>
<td>6</td>
</tr>
<tr>
<td>COMP6442</td>
<td>Software Construction</td>
<td>6</td>
</tr>
<tr>
<td>COMP8110</td>
<td>Managing Software Projects in a System Context</td>
<td>6</td>
</tr>
<tr>
<td>COMP8260</td>
<td>Professional Practice 2</td>
<td>6</td>
</tr>
</tbody>
</table>

- **Availability:** Semester 1 / Semester 2
- **Prerequisites:**
  - Successful completion of COMP6710
  - Successful completion or current enrolment in MATH6005 or COMP6260

### Compulsory Foundational Courses

Complete 1x of the courses listed below

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH6005</td>
<td>Discrete Mathematical Models</td>
<td>6</td>
</tr>
<tr>
<td>COMP6260</td>
<td>Foundations of Computing</td>
<td>6</td>
</tr>
</tbody>
</table>

- **Availability:** Semester 1 / Semester 2
- **Prerequisites:** N/A
Compulsory Software Development Courses

Complete 1x of the courses listed below

☐ COMP6120 Software Engineering (6 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Prerequisites:
    - Successful completion or current enrolment in COMP6442

☐ COMP8190 Model-driven Software Development (6 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Availability: Semester 2 (biennial – runs every two years)
  - Prerequisites: N/A

Compulsory Database Courses

Complete 1x of the courses listed below

☐ COMP6240 Relational Databases (6 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Availability: Semester 2
  - Prerequisites: N/A

☐ COMP6420 Introduction to Data Management, Analysis and Security (6 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Availability: Semester 1
  - Prerequisites: Successful completion of COMP6710

Compulsory Computer Networks Courses

Complete 1x of the courses listed below

☐ COMP6331 Computer Networks (6 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Availability: Semester 1
  - Prerequisites:
    - Successful completion of COMP6710 or COMP6310 or COMP6442

☐ COMP6340 Networked Information Systems (6 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Availability: Semester 1
  - Prerequisites: N/A

Compulsory Research or Internship Courses

Complete 1x of the courses listed below

☐ COMP8715 Computing Project (12 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Availability: Semester 1 / Semester 2
  - Prerequisites:
    - Successful completion of COMP6442
    - Successful completion of COMP8260
  - This course must be completed over two consecutive semesters

☐ COMP8755 Individual Computing Project (12 units)
  - completed at the ANU  ☐ awarded as credit  ☐ awarded as exemption
  - Availability: Semester 1 / Semester 2
  - Prerequisites:
    - Successful completion of COMP6442
    - Successful completion of COMP8260
  - Before you enrol into this course you must:
    - Find a Project Supervisor
    - Complete an ‘Independent Study Contract’
    - Obtain approval from the Course Convenor
COMP8830 Computer Science Internship(12 units)
- completed at the ANU  □  awarded as credit  □  awarded as exemption
Availability: Semester 1 / Semester 2
Prerequisites:
- Successful completion or current enrolment in COMP6442
- Successful completion of COMP8260

Before you enrol into this course you must:
- Have a GPA 5.0/7.0
- Successfully complete 8x courses in your current ANU degree
- Complete an online ‘Expression of Interest’ form
- Submit a copy of your curriculum vitae to CECS Student Services

This course must be completed in one semester

Specialisation Courses – Machine Learning
Complete 4x of the courses listed below

☐ COMP6670 Introduction to Machine Learning(6 units)
- completed at the ANU  □  awarded as credit  □  awarded as exemption
Availability: Semester 2
Prerequisites:
- Successful completion or current enrolment in COMP6710 or COMP6730

☐ COMP8420 Neural Networks, Deep Learning and Bio-inspired Computing(6 units)
- completed at the ANU  □  awarded as credit  □  awarded as exemption
Availability: Semester 1 (biennial – runs every two years)
Prerequisites:
- Successful completion of COMP6670

☐ COMP6490 Document Analysis(6 units)
- completed at the ANU  □  awarded as credit  □  awarded as exemption
Availability: Semester 2
Prerequisites: N/A

☐ COMP8600 Statistical Machine Learning(6 units)
- completed at the ANU  □  awarded as credit  □  awarded as exemption
Availability: Semester 1
Prerequisites:
- Successful completion of COMP6670
- OR
- Successful completion of COMP6710 or COMP6730 or COMP7230
- Successful completion of COMP8410
- Successful completion of STAT6039

☐ COMP8650 Advanced Topics in Machine Learning(6 units)
- completed at the ANU  □  awarded as credit  □  awarded as exemption
Availability: Semester 2 (biennial – runs every two years)
Prerequisites:
- Successful completion of COMP6670 or COMP8600

☐ ENGN6528 Computer Vision(6 units)
- completed at the ANU  □  awarded as credit  □  awarded as exemption
Availability: Semester 1
Prerequisites: N/A

Specified Elective Courses
Complete 1x 6000- or 8000-level COMP-coded course

☐ COMP-coded 6000- or 8000-level course(6 units)
Course: ___________________________
- completed at the ANU  □  awarded as credit
<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Semester 2 2020</th>
<th>COMP6710 Structured Programming</th>
<th>COMP6250 Professional Practice 1</th>
<th>COMP6260 Foundations of Computing</th>
<th>COMP6240 Relational Databases</th>
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<tr>
<td></td>
<td>Semester 1 2021</td>
<td>COMP6442 Software Construction</td>
<td>COMP8260 Professional Practice 2</td>
<td>COMP6331 Computer Networks</td>
<td>ENGN6528 Computer Vision</td>
</tr>
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<td></td>
<td>COMP6340 Networked Information Systems</td>
<td></td>
</tr>
<tr>
<td>YEAR 2</td>
<td>Semester 2 2021</td>
<td>COMP8715 Computing Project</td>
<td>COMP6120 Software Engineering</td>
<td>COMP6670 Introduction to Machine Learning</td>
<td>COMP6490 Document Analysis</td>
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<td>COMP-coded 8000-level course</td>
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<tr>
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<td>Semester 1 2022</td>
<td>COMP8715 Computing Project</td>
<td>COMP8755 Individual Computing Project</td>
<td>COMP8420 Neural Networks, Deep Learning and Bio-inspired Computing</td>
<td></td>
</tr>
<tr>
<td>ALTERNATIVE FINAL YEAR</td>
<td>Semester 2 2021</td>
<td>COMP6120 Software Engineering</td>
<td>COMP6670 Introduction to Machine Learning</td>
<td>COMP6490 Document Analysis</td>
<td>COMP-coded 8000-level course</td>
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College of Engineering and Computer Science (CECS)  Academic Year 2020