Bachelor of Advanced Computing (Honours)
Artificial Intelligence 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 listed requirements for each section.
5. Always check your enrolments with CECS Student Services to ensure that you are on track to graduate.

The Bachelor of Advanced Computing (Honours) requires completion of 192 units, of which:

A maximum of 10 courses may come from completion of 1000-level courses

A minimum of 4 courses must come from the completion of 4000-level COMP-coded courses

Compulsory Courses
Complete the 9x courses listed below

- **COMP1600 Foundations of Computing** (6 units)
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 2
  - Prerequisites:
    - Successful completion of COMP1100 or COMP1130
    - Successful completion of 1x MATH-coded course

- **COMP2100 Software Design Methodologies** (6 units)
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 1 / Semester 2
  - Prerequisites:
    - Successful completion of COMP1100 or COMP1130
    - Successful completion of COMP1110 or COMP1140
    - Successful completion of 1x MATH-coded course

- **COMP2120 Software Engineering** (6 units)
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 2
  - Prerequisites:
    - Successful completion or current enrolment of COMP2100

- **COMP2300 Computer Organisation and Program Execution** (6 units)
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 1
  - Prerequisites:
    - Successful completion of COMP1100 or COMP1130 or COMP1730
    - Successful completion of 1x MATH-coded course

- **COMP2310 Systems, Networks and Concurrency** (6 units)
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 2
  - Prerequisites:
    - Successful completion of COMP1130 or COMP1140 or COMP1110
    - Successful completion of COMP2300

- **COMP2420 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 COMP1100 or COMP1130

- **COMP3600 Algorithms** (6 units)
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 2
  - Prerequisites:
    - Successful completion of COMP1110 or COMP1140
    - Successful completion of COMP1600 or 1x 2000-level MATH-coded course
    - Successful completion of 1x 2000-level COMP-coded course
Compulsory Courses

Complete 1x of the courses listed below

☐ **COMP1100** Programming as Problem Solving\(^6\) units\)
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 1 / Semester 2
  - Prerequisites: Successful completion of COMP1100 or COMP1130 or COMP1730

☐ **COMP1110** Structured Programming\(^6\) units
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 1 / Semester 2
  - Prerequisites: Successful completion of COMP1100 or COMP1130 or COMP1730

☐ **COMP1140** Structured Programming (Advanced)\(^6\) units
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 2
  - Prerequisites: Successful completion of COMP1130

Compulsory Research Courses

Choose 1x of the below course combinations

Complete the 3x courses listed below *recommended course combination*

☐ **COMP4560** Advanced Computing Project\(^{12}\) units
  - completed at the ANU
  - awarded as credit
  - awarded as exemption
  - Availability: Semester 1 / Semester 2
  - Prerequisites: Successful completion of COMP4450

Before you enrol into this course you must:
  - Find a Project Supervisor
  - Complete an ‘Independent Study Contract’
  - Obtain approval from the Course Convenor

☐ **COMP-coded 3000- or 4000-level course**\(^6\) units
  - completed at the ANU
  - awarded as credit

☐ **COMP-coded 3000- or 4000-level course**\(^6\) units
  - completed at the ANU
  - awarded as credit
## Complete the course listed below

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
<th>Completed</th>
<th>Awarded as Credit</th>
<th>Awarded as Exemption</th>
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<td>24</td>
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</table>

Before you enrol into this course you must:
- Have a weighted average mark of 70% (calculated from 6 courses with the highest marks in cognate disciplines [excluding 1000-level courses])
- Find a Project Supervisor
- Complete an 'Independent Study Contract'
- Obtain approval from the Course Convenor

## Specialisation Courses - Artificial Intelligence

### Complete 4x courses listed below

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
<th>Completed</th>
<th>Awarded as Credit</th>
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<tr>
<td>COMP2620</td>
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<td>COMP3620</td>
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<td>COMP4620</td>
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<td>COMP4691</td>
<td>Optimisation</td>
<td>6</td>
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## Specified Elective Courses

Complete 2x COMP-coded courses

You can choose 1x course from the following list to replace a COMP-coded elective*:

- MATH1013 Mathematics and Applications 1
- MATH1014 Mathematics and Applications 2
- MATH1115 Advanced Mathematics and Applications 1
- MATH1116 Advanced Mathematics and Applications 2
- MATH2301 Games, Graphs and Machines
- ENGIN1211 Discovering Engineering
- STAT1003 Statistical Techniques
- STAT1008 Quantitative Research Methods

*As you have chosen the Artificial Intelligence specialisation, it is recommended that you complete either MATH1013 or MATH1115.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<td>(6 units)</td>
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### Specified Elective Courses

**Complete 3x 3000- or 4000-level COMP-coded courses**

You can choose 1x course from the following list to replace a 3000- or 4000-level COMP-coded elective:

- ☐ ENGN3230 Engineering Innovation
- ☐ VCU3001 Unravelling Complexity
- ☐ VCU3002 Mobilising Research

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### Unspecified Elective Courses

**Complete 8x ANU-wide courses**

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### Additional electives as a result of awarded course exemption(s)

You are required to complete an additional ___ COMP-coded elective courses

You are required to complete an additional ___ ANU-wide elective courses
## 2020 Suggested Study Plan – Semester 1 Commencement

### YEAR 1

**Semester 1 2020**
- COMP1100 Programming as Problem Solving
- MATH1005 Discrete Mathematical Models
- MATH1013 Mathematics and Applications 1

**Semester 2 2020**
- COMP1130 Programming as Problem Solving (Advanced)
- COMP1110 Structured Programming
- OR
- COMP1140 Structured Programming (Advanced)

### YEAR 2

**Semester 1 2021**
- COMP2100 Software Design Methodologies
- COMP2300 Computer Organisation and Program Execution
- COMP2420 Introduction to Data Management, Analysis and Security
- COMP2620 Logic

**Semester 2 2021**
- COMP2120 Software Engineering
- COMP2310 Systems, Networks and Concurrency
- COMP3600 Algorithms

### YEAR 3

**Semester 1 2022**
- COMP4450 Advanced Computing Research Methods
- COMP3620 Artificial Intelligence
- COMP-coded 3000- or 4000-level course

**Semester 2 2022**
- COMP4691 Optimisation
- COMP-coded 3000- or 4000-level course

### YEAR 4

**Semester 1 2023**
- COMP4560 Advanced Computing Project
- COMP-coded 3000- or 4000-level course

**Semester 2 2023**
- COMP4560 Advanced Computing Project
- COMP-coded 3000- or 4000-level course
- COMP4620 Advanced Topics in Artificial Intelligence

### ALTERNATIVE FINAL YEAR

**Semester 1 2023**
- COMP4550 Advanced Computing Research Project
- COMP-coded 3000- or 4000-level course

**Semester 2 2023**
- COMP4550 Advanced Computing Research Project
- COMP4620 Advanced Topics in Artificial Intelligence

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College of Engineering and Computer Science (CECS)  
Academic Year 2020
<table>
<thead>
<tr>
<th>YEAR</th>
<th>SEMESTER</th>
<th>COURSE CODE</th>
<th>COURSE NAME</th>
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<th>ANU-WIDE ELECTIVE</th>
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