

## Bioinformatics

| Year 1   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP1917 Higher Computing 1  | 6         | -         |
| MATH1131 Mathematics 1A or<br>MATH1141 Higher Mathematics 1A             | 6         | -         |
| BABS1201 Molecules, Cells and Genes                                      | 6         | -         |
| CHEM1011 Fundamentals of Chem 1A or<br>CHEM1031 Higher Chemistry 1C*     | 6         | -         |
| COMP1927 Higher Data Structures and Algorithms                           | -         | 6         |
| MATH1231 Mathematics 1B<br>MATH1241 Higher Mathematics 1B                | -         | 6         |
| CHEM1021 Fundamentals of Chemistry 1B or<br>CHEM1041 Higher Chemistry 1D | -         | 6         |
| BINF1001 Bioinformatics 1  | -         | 6         |
| <b>Total Units of Credit</b>   | <b>24</b> | <b>24</b> |

| Year 2   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP2911 Engineering Design 2  | 6         | -         |
| MATH1081 Discrete Mathematics  | 6         | -         |
| MATH2801 Theory of Statistics or<br>MATH2901 Higher Theory of Statistics | 6         | -         |
| COMP2041 Software Constructions: Techniques and Tools                    | 6         | -         |
| COMP3711 Software Project Management                                     | -         | 6         |
| BIOC2201 Principles of Molecular Biology (Advanced)                      | -         | 6         |
| BIOC2101 Principles of Biochemistry (Advanced)                           | -         | 6         |
| BIOS2021 Genetics or<br>BIOS2621 Genetics (Advanced level)               | -         | 12        |
| MICR2101 Microbiology 1  | -         | 6         |
| BABS2202 Cell Biology  | -         | 6         |
| <b>Total Units of Credit</b>   | <b>24</b> | <b>24</b> |

| Year 3   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| BIOC3121 Molecular Biology of Nucleic Acids      | 6         | -         |
| COMP3121 Algorithms and Programming Techniques   | 6         | -         |
| BINF3010 Bioinformatics Methods and Applications | 6         | -         |
| BINF3020 Computational Bioinformatics            | -         | 6         |
| COMP3311 Database Systems                        | -         | 6         |
| Life Science Elective                            | 6         | -         |
| COMP/MATH Elective                               | 6         | -         |
| Free Elective                                    | 6         | -         |
| <b>Total Units of Credit</b>                     | <b>24</b> | <b>24</b> |

| Year 4                                  | S1 UoC    | S2 UoC    |
|---|-----------|-----------|
| BINF4910 Bioinformatics Thesis A        | 3         | -         |
| BINF4920 Professional Issues and Ethics | 3         | -         |
| BINF4911 Bioinformatics Thesis B        | -         | 12        |
| Life Science Elective                   | 6         | -         |
| COMP/MATH Elective                      | 6         | -         |
| Free Elective                           | 6         | -         |
| General Education                       | 12        | -         |
| <b>Total Units of Credit</b>            | <b>24</b> | <b>24</b> |

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## Computer Engineering

| Year 1   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP1917 Higher Computing 1                                  | 6         | -         |
| ENGG1000 Introduction to Engineering Design and Innovation   | 6         | -         |
| MATH1131 Mathematics 1A or<br>MATH1141 Higher Mathematics 1A | 6         | -         |
| PHYS1121 Physics 1A or<br>PHYS1131 Higher Physics 1A         | 6         | -         |
| COMP1927 Higher Data Structures and Algorithms               | -         | 6         |
| MATH1231 Mathematics 1B or<br>MATH1241 Higher Mathematics 1B | -         | 6         |
| ELEC1111 Electrical and Telecommunications Engineering       | -         | 6         |
| PHYS1231 Higher Physics 1B                                   | -         | 6         |
| <b>Total Units of Credit</b>                                 | <b>24</b> | <b>24</b> |

| Year 2                                   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP2121 Microprocessors and Interfacing | 6         | -         |
| COMP2911 Engineering Design 2            | 6         | -         |
| ELEC2134 Circuits and Signals            | 6         | -         |
| MATH2069 Mathematics 2A                  | 6         | -         |
| COMP3222 Digital Circuits and Systems    | -         | 6         |
| ELEC2133 Analog Electronics              | -         | 6         |
| MATH2099 Mathematics 2B                  | -         | 6         |
| General Education                        | -         | 6         |
| <b>Total Units of Credit</b>             | <b>24</b> | <b>24</b> |

| Year 3                         | S1 UoC    | S2 UoC    |
|--------------------------------|-----------|-----------|
| COMP3231 Operating Systems     | 6         | -         |
| COMP3211 Computer Architecture | 6         | -         |
| COMP3601 Design Project A      | -         | 6         |
| Breadth Electives              | 6         | 12        |
| Depth Electives                | 6         | -         |
| General Education              | 6         | -         |
| <b>Total Units of Credit</b>   | <b>24</b> | <b>24</b> |

| Year 4                               | S1 UoC    | S2 UoC    |
|--------------------------------------|-----------|-----------|
| COMP4601 Design Project B            | 6         | -         |
| COMP4930 Thesis Part A               | 6         | -         |
| Breadth or Coverage Elective (6 UoC) | 6         | -         |
| Depth Electives (18 UoC)             | 6         | 12        |
| COMP3711 Software Project Management | -         | 6         |
| COMP4931 Thesis Part B               | -         | 6         |
| <b>Total Units of Credit</b>         | <b>24</b> | <b>24</b> |

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## Computer Science

| Year 1   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP1917 Higher Computing 1                                  | 6         | -         |
| MATH1131 Mathematics 1A or<br>MATH1141 Higher Mathematics 1A | 6         | -         |
| MATH1231 Mathematics 1B or<br>MATH1241 Higher Mathematics 1B | -         | 6         |
| COMP1927 Higher Data Structures and Algorithms               | -         | 6         |
| MATH1081 Discrete Mathematics                                | 6         | -         |
| Computer and Science Electives                               | 18        | -         |
| <b>Total Units of Credit</b>                                 | <b>24</b> | <b>24</b> |

| Year 2                                   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP2911 Engineering Design 2            | 6         | -         |
| COMP2121 Microprocessors and Interfacing | 6         | -         |
| COMP2920 Professional Issues and Ethics  | 3         | -         |
| COMP2041 Software Construction           | -         | 6         |
| Computer Science Electives               | 21        | -         |
| General Education                        | 6         | -         |
| <b>Total Units of Credit</b>             | <b>24</b> | <b>24</b> |

| Year 3                              | S1 UoC    | S2 UoC    |
|-------------------------------------|-----------|-----------|
| COMP3111 Software Engineering       | 6         | -         |
| Year 3/4 Computer Science Electives | 24        | -         |
| General Education                   | 6         | -         |
| Computer Science Electives          | 12        | -         |
| <b>Total Units of Credit</b>        | <b>24</b> | <b>24</b> |

| Year 4 Honours (optional)           | S1 UoC    | S2 UoC    |
|-------------------------------------|-----------|-----------|
| COMP4910 Thesis Part A              | 3         | -         |
| COMP4911 Thesis Part B              | -         | 15        |
| Year 3/4 Computer Science Electives | 24        | 6         |
| <b>Total Units of Credit</b>        | <b>48</b> | <b>24</b> |

Students who have graduated with a three year Computer Science degree program from UNSW or another university can apply for admission to Honours. Honours takes one year of full-time or two years of part-time study. Normally, students are expected to have attained an average mark of 65 (according to UNSW calculations) to qualify for entry to the Honours program. Detailed information about the Program is available at the Honours website at: [www.cse.unsw.edu.au/~cs4914](http://www.cse.unsw.edu.au/~cs4914)

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## Software Engineering

| Year 1   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP1917 Higher Computing 1                                  | 6         | -         |
| INFS1603 Business Data Management                            | 6         | -         |
| MATH1131 Mathematics 1A or<br>MATH1141 Higher Mathematics 1A | 6         | -         |
| MATH1081 Discrete Mathematics*                               | 6         | -         |
| COMP1927 Higher Data Structures and Algorithms               | -         | 6         |
| MATH1231 Mathematics 1B or<br>MATH1241 Higher Mathematics 1B | -         | 6         |
| SENG1031 Software Engineering Workshop 1                     | -         | 6         |
| Stage 1 Free Elective  | -         | 6         |
| <b>Total Units of Credit</b>                                 | <b>24</b> | <b>24</b> |

| Year 2   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP2111 System Modelling and Design             | 6         | -         |
| INFS2603 System Analysis and Design              | 6         | -         |
| SENG2010 Software Engineering Workshop 2A        | 3         | -         |
| COMP2911 Engineering Design in Computing 2       | 6         | -         |
| COMP2121 Microprocessors and Interfaces          | 6         | -         |
| Stage 2 Free Electives                           | 6         | -         |
| General Education                                | 3         | -         |
| MATH2859 Probability, Statistics and Information | -         | 3         |
| SENG2020 Software Engineering Workshop 2B        | -         | 3         |
| COMP3711 Project Management                      | -         | 6         |
| <b>Total Units of Credit</b>                     | <b>24</b> | <b>24</b> |

| Year 3   | S1 UoC    | S2 UoC    |
|--|-----------|-----------|
| COMP3141 Software System Design and Implementation                                   | 6         | -         |
| SENG3010 Software Engineering Workshop 3A  | 3         | -         |
| Software Engineering Electives   | 21        | -         |
| General Education  | 9         | -         |
| COMP3331 Computer Networks & Applications or<br>INFS2607 Infrastructure and Security | 6         | -         |
| SENG3020 Software Engineering Workshop 3B  | -         | 3         |
| <b>Total Units of Credit</b>   | <b>24</b> | <b>24</b> |

| Year 4                                  | S1 UoC    | S2 UoC    |
|---|-----------|-----------|
| SENG4910 Thesis Part A                  | 6         | -         |
| SENG4921 Professional Issues and Ethics | 6         | -         |
| Software Engineering Electives          | 24        | -         |
| SENG4911 Thesis Part B                  | -         | 12        |
| <b>Total Units of Credit</b>            | <b>24</b> | <b>24</b> |

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