

**3785 - Engineering (Honours) Mechatronic Engineering / Computer Science - 240 UoC**

With this dual degree program, students take the 168 units of credit core of the Bachelor of Engineering (Honours) 3707 and the 96 units of credit core of the Bachelor of Science (Computer Science) program 3778. Due to the overlap of 24 units of credit of Science courses in both core, the total units of credit required for completion is 240 UOC, rather than 264 UOC (see the UNSW Handbook for more details).

Some courses are double counted. Additionally the course overlaps require students to replace the usual course in one core or major with a more advanced course required in the other program.

Specifically:

1. Students MUST take COMP1511 as their first year Engineering computing course, COMP1511 is then double counted towards both degrees
2. Students are required to complete one of MATH1131 or MATH1141, and one of MATH1231 or MATH1241. The two Maths course are double counted towards both degrees.
3. MATH1081 is a core requirement Bachelor of Computer Science but is replaced by the 2nd Year Maths course taken in the BE(Hons) Major

*Note: Without following the substitutions above, students may end up needing to use free electives for core requirements or taking more than 240 UOC to complete the dual degree.*

| Course                                      | UoC        | Complete? | Notes |
|---|------------|-----------|-------|
| <b>Core Courses - 30 UoC</b>                |            |           |       |
| COMP1511                                    | 6          |           |       |
| COMP1531                                    | 6          |           |       |
| MATH1131 or MATH1141                        | 6          |           |       |
| MATH1231 or MATH1241                        | 6          |           |       |
| MATH2018 or MATH2019                        | 6          |           |       |
| <b>UoC Sub Total</b>                        | <b>30</b>  |           |       |
| <b>Disciplinary Component - 144 UoC</b>     |            |           |       |
| <b>Level 1 Core Courses</b>                 |            |           |       |
| DESN1000                                    | 6          |           |       |
| ELEC1111                                    | 6          |           |       |
| ENGG1300                                    | 6          |           |       |
| MMAN1130                                    | 6          |           |       |
| PHYS1121 or PHYS1131                        | 6          |           |       |
| <b>Level 2 Core Courses</b>                 |            |           |       |
| DESN2000                                    | 6          |           |       |
| ELEC2141                                    | 6          |           |       |
| ENGG2400 or ENG2500 or MMAN2400 or MMAN2700 | 6          |           |       |
| MATH2089                                    | 6          |           |       |
| MMAN2300                                    | 6          |           |       |
| MTRN2500                                    | 6          |           |       |
| <b>Level 3 Core Courses</b>                 |            |           |       |
| DESN3000                                    | 6          |           |       |
| MMAN3200                                    | 6          |           |       |
| MTRN3020                                    | 6          |           |       |
| MTRN3100                                    | 6          |           |       |
| MTRN3500                                    | 6          |           |       |
| <b>Level 4 Core Courses</b>                 |            |           |       |
| MTRN4010                                    | 6          |           |       |
| MTRN4230                                    | 6          |           |       |
| <b>Thesis Courses</b>                       |            |           |       |
| MMAN4010 and MMAN4020 OR                    | 12         |           |       |
| MMAN4951 and MMAN4952 and MMAN4953          | 12         |           |       |
| <b>Electives</b>                            |            |           |       |
| Discipline Elective                         | 6          |           |       |
| Discipline Elective                         | 6          |           |       |
| Discipline Elective                         | 6          |           |       |
| Free Elective                               | 6          |           |       |
| <b>Industrial Training</b>                  |            |           |       |
| 60 Days Industrial Training                 |            |           |       |
| <b>UoC Sub Total</b>                        | <b>144</b> |           |       |

**IN ADDITION TO THE 24 CORE AND 144 DISCIPLINARY UNITS ABOVE, STUDENTS MUST COMPLETE 72 UoC FROM A COMPUTER SCIENCE STREAM, COMPA1 IS THE DEFAULT STREAM FOR THIS PROGRAM**

**COMPA1 - Computer Science - 66 UoC**

|                      |            |  |  |
|----------------------|------------|--|--|
| COMP1521             | 6          |  |  |
| COMP2521             | 6          |  |  |
| COMP2511             | 6          |  |  |
| COMP3121             | 6          |  |  |
| COMP3900             | 6          |  |  |
| COMP4920             | 6          |  |  |
| Computing Elective   | 6          |  |  |
| Computing Elective   | 6          |  |  |
| Computing Elective   | 6          |  |  |
| Computing Elective   | 6          |  |  |
| Computing Elective   | 6          |  |  |
| <b>UoC Sub Total</b> | <b>66</b>  |  |  |
| <b>UoC Total</b>     | <b>240</b> |  |  |