# Bachelor of Information Technology and Bachelor of Science (C2003) – 2022
# Business information systems major

**Year 1 (48 credit points)**

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|---|---|---|---|---|
| **First Semester** | **FIT1051**<br>Programming fundamentals in java | **FIT1006**<br>Business information analysis<br><br>[Yr 12 Maths or MTH1010] | Science major approved level 1 sequence 1 | Approved level 1 science sequence 2 |
| **Second Semester** | **FIT1047**<br>Introduction to computer systems, networks and security | **FIT Elective 1**<br>OR<br>**FIT1013***<br>Digital futures: IT for business | Science major approved level 1 sequence 1 | Approved Level 1 science sequence 2 |

**Year 2 (48 credit points)**

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|---|---|---|---|---|
| **First Semester** | **FIT1049**<br>IT professional practice<br><br>[12 pts FIT study] | **FIT2081**<br>Mobile applications development<br>[One of FIT1045, FIT1048 or FIT1051]<br>OR<br>**FIT2095**<br>eBusiness software technologies<br>[FIT1051] | Science major - level 2 | One of **SCI1020, STA1010, MTH1020, MTH1030 or MTH1035** [or level one Science elective if already taken as part of another sequence]<br><br>(Can be taken in semester 1 or 2) |
| **Second Semester** | **FIT2094**<br>Databases<br><br>[One of FIT1045, FIT1048 or FIT1051] | **FIT2090**<br>Business information systems and processes<br><br>[24pts FIT or BusEco study] | Science major - level 2 | **SCI1000**<br>Science communication to influence change<br><br>(Can be taken in semester 1 or 2) |

**Year 3 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT2001**<br>Systems development<br><br>[24pts FIT study] | **FIT3174**<br>IT strategy and governance<br>[24pts FIT level 2 study]<br>OR<br>**FIT3138**<br>Real time enterprise systems<br>[12 pts Level 2 FIT, SCI, ENG study] | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT2002**<br>IT project management<br><br>[36pts level 1 study including one of FIT1045, FIT1048, FIT1051, ENG1003] | **FIT3003**<br>Business intelligence and data warehousing<br>[FIT2094]<br>OR<br>**FIT3152**<br>Data analytics<br>[FIT1006] | Science major - level 3 | Science elective – level 2 or 3 |

**Year 4 (48 credit points)**

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|---|---|---|---|---|
| **First Semester** | **FIT3047***<br>Industry experience studio project 1<br>[Refer to Handbook] | **FIT Elective 2** | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT3048***<br>Industry experience studio project 2<br><br>[FIT3047] | **FIT3158**<br>Business decision models<br>[24pts FIT or BusEco study and one of FIT1006, ETC1000, STA1010] | Science major - level 3 | Science elective – level 2 or 3 |

## * Industry Based Learning (IBL)

- Students accepted into the IBL program will replace FIT3047 and FIT3048 and an FIT Elective on the IT side of their degree with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- Students completing an IBL placement must overload in one semester OR complete a summer unit in order to complete the course in 4 years.
- IBL students or any students considering IBL completing the BIS major will need to complete FIT1013 in semester 2.

# Bachelor of Information Technology and Bachelor of Science (C2003) – 2022
# Computer Networks and Security major

**Year 1 (48 credit points)**

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|---|---|---|---|---|
| **First Semester** | **FIT1045**<br>**A**lgorithms and programming fundamentals in python<br>[VCE Mathematics Methods or Specialist Mathematics units 3 & 4 with a study score of 25 or MTH1010]<br>OR<br>**FIT1048**<br>Fundamentals of C++<br>OR<br>**FIT1051**<br>Programming fundamentals in java | **FIT1047**<br>Introduction to computer systems, networks and security | Science major<br>approved level 1 sequence 1 | Approved level 1 science sequence 2 |
| **Second Semester** | **FIT1049**<br>IT professional practice<br>[12 pts FIT study] | **FIT Elective 1** | Science major<br>approved level 1 sequence 1 | Approved Level 1 science sequence 2 |

**Year 2 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT2001**<br>Systems development<br>[24pts FIT study]<br>OR<br>**FIT2099**<br>Object-oriented design and implementation<br>[One of FIT1045, FIT1048 or FIT1051] | **FIT2093**<br>Introduction to cyber security<br>[FIT1047 and one of FIT1045, FIT1048 or FIT1051] | Science major - level 2 | One of **SCI1020, STA1010, MTH1020, MTH1030 or MTH1035** [or level one Science elective if already taken as part of another sequence]<br>(Can be taken in semester 1 or 2) |
| **Second Semester** | **FIT2094**<br>Databases<br>[One of FIT1045, FIT1048 or FIT1051] | **FIT2100**<br>Operating systems<br>[FIT1047] | Science major - level 2 | **SCI1000**<br>Science communication to influence change<br>(Can be taken in semester 1 or 2) |

**Year 3 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT Elective 2*** | **FIT3165**<br>Computer networks<br>[FIT1047 and one of FIT1045, FIT1048 or FIT1051] | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT2002**<br>IT project management<br>[36pts level 1 study including one of FIT1045, FIT1048, FIT1051, ENG1003] | **FIT3031**<br>Network security<br>[FIT1047 and FIT2093] | Science major - level 3 | Science elective – level 2 or 3 |

**Year 4 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT3047***<br>Industry experience studio project 1<br>[Refer to Handbook] | **FIT3173**<br>Software security<br>[One of FIT1045 or FIT1048 or FIT1051] | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT3048***<br>Industry experience studio project 2<br>[FIT3047] | **FIT2081**<br>Mobile applications development<br>[One of FIT1045 or FIT1048 or FIT1051]<br>OR<br>**FIT3142**<br>Distributed computing<br>[FIT2100 and FIT3165]<br>OR<br>**FIT3168**<br>IT forensics<br>[FIT2093] | Science major - level 3 | Science elective – level 2 or 3 |

## * Industry Based Learning (IBL)

- Students accepted into the IBL program will replace FIT3047 and FIT3048 and an FIT Elective on the IT side of their degree with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- Students completing an IBL placement must overload in one semester OR complete a summer unit in order to complete the course in 4 years.

# Bachelor of Information Technology and Bachelor of Science (C2003) – 2022
# Games development major

**Year 1 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT1047**<br>Introduction to computer systems, networks and security | **FIT1033**<br>Foundations of 3D | Science major approved level 1 sequence 1 | Approved level 1 science sequence 2 |
| **Second Semester** | **FIT2073**<br>Game design studio 1 | **FIT1048**<br>Fundamentals of C++ | Science major approved level 1 sequence 1 | Approved Level 1 science sequence 2 |

**Year 2 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT2001**<br>Systems development<br>[24pts FIT study]<br>OR<br>**FIT2099**<br>Object-oriented design and implementation<br>[One of FIT1045, FIT1048 or FIT1051] | **FIT2096**<br>Games programming 1<br>[FIT1048] | Science major - level 2 | One of **SCI1020, STA1010, MTH1020, MTH1030 or MTH1035** [or level one Science elective if already taken as part of another sequence]<br>(Can be taken in semester 1 or 2) |
| **Second Semester** | **FIT1049**<br>IT professional practice<br>[12 pts FIT study] | **FIT2097**<br>Games programming 2<br>[FIT2096] | Science major - level 2 | **SCI1000**<br>Science communication to influence change<br>(Can be taken in semester 1 or 2) |

**Year 3 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT2094**<br>Databases<br>[One of FIT1045, FIT1048 or FIT1051] | **FIT3094**<br>Artificial life, artificial intelligence and virtual environments<br>[FIT2096] | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT2002**<br>IT project management<br>[36pts level 1 study including one of FIT1045, FIT1048, FIT1051, ENG1003] | **FIT3145**<br>Game design studio 2<br>[FIT2073 & FIT2096] | Science major - level 3 | Science elective – level 2 or 3 |

**Year 4 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT3039***<br>Studio project 1<br>[(FIT2091 and (FIT2087 or FIT2098)) or (FIT2073 and FIT2096)] | **FIT Elective*** | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT3040***<br>Studio project 2<br>[FIT3039] | **FIT3146**<br>Maker lab<br>[One of FIT1045, FIT1048 or FIT1051, ENG1003 and 90pts of study] | Science major - level 3 | Science elective – level 2 or 3 |

## * Industry Based Learning (IBL)

- Students accepted into the IBL program will replace FIT3039 and FIT3040 and an FIT Elective on the IT side of their degree with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- Students completing an IBL placement must overload in one semester OR complete a summer unit in order to complete the course in 4 years.

# Bachelor of Information Technology and Bachelor of Science (C2003) – 2022
# Interactive media major

**Year 1 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT1045**<br>**A**lgorithms and programming fundamentals in python<br>[VCE Mathematics Methods or Specialist Mathematics units 3 & 4 with a study score of 25 or MTH1010]<br>OR<br>**FIT1048**<br>Fundamentals of C++<br>OR<br>**FIT1051**<br>Programming fundamentals in java | **FIT1033**<br>Foundations of 3D | Science major approved level 1 sequence 1 | Approved level 1 science sequence 2 |
| **Second Semester** | **FIT1047**<br>Introduction to computer systems, networks and security | **FIT1046**<br>Interactive media foundations | Science major approved level 1 sequence 1 | Approved Level 1 science sequence 2 |

**Year 2 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT1049**<br>IT professional practice<br>[12 pts FIT study] | **FIT2091**<br>Interactive media studio 1<br>[FIT1046] | Science major - level 2 | One of **SCI1020, STA1010, MTH1020, MTH1030 or MTH1035** [or level one Science elective if already taken as part of another sequence]<br>(Can be taken in semester 1 or 2) |
| **Second Semester** | **FIT2094**<br>Databases<br>[One of FIT1045, FIT1048 or FIT1051] | **FIT2092**<br>Interactive media studio 2<br>[FIT2091] | Science major - level 2 | **SCI1000**<br>Science communication to influence change<br>(Can be taken in semester 1 or 2) |

**Year 3 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT2001**<br>Systems development<br>[24pts FIT study]<br>OR<br>**FIT2099**<br>Object-oriented design and implementation<br>[One of FIT1045, FIT1048 or FIT1051] | **FIT2087**<br>3D character animation<br>[FIT1033]<br>OR<br>**FIT2098**<br>Virtual and augmented reality | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT2002**<br>IT project management<br>[36pts level 1 study including one of FIT1045, FIT1048, FIT1051, ENG1003] | **FIT3172**<br>Sonics<br>[24 points of level 2] | Science major - level 3 | Science elective – level 2 or 3 |

**Year 4 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT3039**<br>Studio project 1<br>[(FIT2091 and (FIT2087 or FIT2098)) or (FIT2073 and FIT2096)] | **FIT3169**<br>Immersive environments<br>[FIT1033] | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT3040**<br>Studio project 2<br>[FIT3039] | **FIT3146**<br>Maker lab<br>[One of FIT1045, FIT1048 or FIT1051, ENG1003 and 90pts of study] | Science major - level 3 | Science elective – level 2 or 3 |

## Industry Based Learning (IBL)

- Students accepted into the IBL program will need to discuss their unit enrolment on the IT side of the degree with the Faculty. Completing an IBL placement with the IM major may require completing an additional unit above the 192 points required for the degree.
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- Students completing an IBL placement must overload in one semester OR complete a summer unit in order to complete the course in 4 years.

# Bachelor of Information Technology and Bachelor of Science (C2003) – 2022
# Software development major

**Year 1 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT1045**<br>**A**lgorithms and programming fundamentals in python<br>[VCE Mathematics Methods or Specialist Mathematics units 3 & 4 with a study score of 25 or MTH1010]<br>OR<br>**FIT1048**<br>Fundamentals of C++<br>OR<br>**FIT1051**<br>Programming fundamentals in java | **FIT1050**<br>Web fundamentals | Science major approved level 1 sequence 1 | Approved level 1 science sequence 2 |
| **Second Semester** | **FIT1047**<br>Introduction to computer systems, networks and security | **FIT Elective 1** | Science major approved level 1 sequence 1 | Approved Level 1 science sequence 2 |

**Year 2 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT2001**<br>Systems development<br><br>[24pts FIT study] | **FIT2094**<br>Databases<br><br>[One of FIT1045, FIT1048 or FIT1051] | Science major - level 2 | One of **SCI1020, STA1010, MTH1020, MTH1030 or MTH1035** [or level one Science elective if already taken as part of another sequence]<br>(Can be taken in semester 1 or 2) |
| **Second Semester** | **FIT1049**<br>IT professional practice<br><br>[12 pts FIT study] | **FIT2104**<br>Web database interface<br>[FIT2094]<br>OR<br>**FIT2081**<br>Mobile application development<br>[FIT1045, FIT1048 or FIT1051] | Science major - level 2 | **SCI1000**<br>Science communication to influence change<br><br>(Can be taken in semester 1 or 2) |

**Year 3 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT Elective 2** | **FIT3175**<br>Usability<br>[FIT1045, FIT1048 or FIT1051] | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT2002**<br>IT project management<br>[36pts level 1 study including one of FIT1045, FIT1048, FIT1051, ENG1003] | **FIT Elective 3*** | Science major - level 3 | Science elective – level 2 or 3 |

**Year 4 (48 credit points)**

| | | | | |
|---|---|---|---|---|
| **First Semester** | **FIT3047***<br>Industry experience studio project 1<br>[Refer to Handbook] | **Software Development unit**<br>(choose from list) | Science major - level 3 | Science elective – level 2 or 3 |
| **Second Semester** | **FIT3048***<br>Industry experience studio project 2<br>[FIT3047] | **Software Development unit**<br>(choose from list) | Science major - level 3 | Science elective – level 2 or 3 |

Software Development units:

FIT3077 Software engineering: architecture and design
FIT3134 IT-based entrepreneurship or BEX3411 Entrepreneurship
FIT3146 Maker lab
FIT3157 Advanced web design
FIT3173 Software security
FIT3176 Advanced database design
FIT3178 iOs app development

* Industry Based Learning (IBL)

- Students accepted into the IBL program will replace FIT3047 and FIT3048 and an FIT Elective on the IT side of their degree with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- Students completing an IBL placement must overload in one semester OR complete a summer unit in order to complete the course in 4 years.

| Bachelor of Science Majors and Sequences |
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| For information on Science majors and approved sequences, refer to https://www.monash.edu/science/current-students/manage-your-science-studies |

**Notes**

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| **Credit points** | Unless specified, all units are worth 6 credit points<br>Bachelor of Information Technology and Bachelor of Science 32 units x 6cp = Total of 192 credit points |
| **Unit requisites** | All pre-requisite and co-requisite requirements must be undertaken in order to be able to enrol into a specific unit |
| **Duration of degree** | 4 years full-time, 8 years part-time |
| **Time limit** | Time limit: 10 years. Students have ten years in which to complete this award from the time they commence first year. Periods of intermission are counted as part of the ten years. |
| **Monash University handbook** | Students should follow the course requirements for the year the course was commenced<br>https://handbook.monash.edu/browse/By%20Faculty/FacultyofInformationTechnology |