### Year 1 (48 credit points)

**First Semester**
- FIT1053 Algorithms and programming in python (advanced)
- FIT1047 Introduction to computer systems, networks and security
- MAT1830 Discrete mathematics for computer science

**Second Semester**
- FIT1054 Computer science (advanced)
- FIT1049 IT professional practice
- MAT1841 Continuous mathematics for computer science

### Year 2 (48 credit points)

**First Semester**
- FIT2004 Algorithms and data structures
  - [FIT1008 or FIT1054 & 6 pts L1 Maths]
- FIT2083 Innovation and research in computer science
  - [24 pts of level 1 FIT]
- FIT2099 Object oriented design and implementation
  - [One of FIT1045, FIT1048, FIT1051, FIT1008]

**Second Semester**
- FIT2014 Theory of computation
  - [FIT1045 or FIT1053 and MAT1830]
- FIT2102 Programming paradigms
  - [FIT1008 or FIT1054]
- FIT2082 Computer science research project
  - [FIT2083]

### Year 3 (48 credit points)

**First Semester**
- FIT3144 Advanced computer science project (12 points)
  - [FIT2004 & FIT2083]
- FIT3171 Databases
  - [One of FIT1045, FIT1048, FIT1051, FIT1053 or ENG1003]
- FIT3155 Advanced data structures and algorithms
  - [FIT2004]

**Second Semester**
- FIT3143 Parallel computing
  - [FIT2004]
- FIT3159 Computer architecture
- FIT3165 Computer networks
- FIT3173 Software security
- FIT3175 Usability
- MTH3170 Network mathematics

### Year 4 (48 credit points)

**First Semester**
- FIT4441 Honours thesis – part 1
- FIT4442 Honours thesis – part 2
- FIT4443 Honours thesis – part 3
- FIT4444 Honours thesis – final

### Notes
- Credit points: Unless specified, all units are worth 6 credit points
  - Bachelor of Computer Science Advanced (Honours) 32 units x 6 credit points = Total of 192 credit points
- Year Level Requirements: 1) Normally 48 points, and a maximum of 60 points, of first year level units will be counted;
  2) At least 36 points must be completed at third year level.
- 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.
# Bachelor of Computer Science Advanced (Honours) (C3001) – 2018
(Industry Based Learning/Research Based Learning placement)

## Year 1 (48 credit points)

### First Semester
- **FIT1053** Algorithms and programming in python (advanced)
- **FIT1047** Introduction to computer systems, networks and security
- **MAT1830** Discrete mathematics for computer science

### Second Semester
- **FIT1054** Computer science (advanced) [FIT1053]
- **FIT1049** IT professional practice
- **MAT1841** Continuous mathematics for computer science

## Year 2 (54 credit points)

### Summer Semester
- **Elective**

### First Semester
- **FIT2004** Algorithms and data structures [FIT1008 or FIT1054 & 6 pts L1 Maths]
- **FIT2083** Innovation and research in computer science [24 pts of level 1 FIT]
- **FIT2099** Object oriented design and implementation [One of FIT1045, FIT1048, FIT1051, FIT1008]

### Second Semester
- **FIT2014** Theory of computation [FIT1045 or FIT1053 and MAT1830]
- **FIT2102** Programming paradigms [FIT1008 or FIT1054]
- **FIT2082** Computer science research project [FIT2083]

## Year 3 (42 credit points)

### First Semester
- **FIT3153** Research-based learning (18 points) OR **FIT3045** Industry-based learning (18 points)

### Second Semester
- **FIT3155** Advanced data structures and algorithms [FIT2004]
- **FIT3143** Parallel computing [FIT2004]
- **FIT3171** Databases [One of FIT1045, FIT1048, FIT1051, FIT1053 or ENG1003]

### Level 3 Computer Science Approved Elective*

## Year 4 (48 credit points)

### First Semester
- **FIT4441** Honours thesis – part 1
- **FIT4442** Honours thesis – part 2

### Second Semester
- **FIT4443** Honours thesis – part 3
- **FIT4444** Honours thesis – final

### Elective

* Level 3 Approved Computer Science Electives:
- FIT3031 Information and network security
- FIT3077 Software engineering: architecture and design
- FIT3080 Intelligent systems
- FIT3081 Image processing
- FIT3088 Computer graphics
- FIT3094 Artificial life, artificial intelligence and virtual environments
- FIT3139 Computational science
- MTH3170 Network mathematics

Note: not all units will be taught in every year and come will be offered only in alternate years

## Notes

| Credit points | Unless specified, all units are worth 6 credit points | Bachelor of Computer Science Advanced (Honours) 32 units x 6 credit points = Total of 192 credit points |
| Year Level Requirements | 1) Normally 48 points, and a maximum of 60 points, of first year level units will be counted; 2) At least 36 points must be completed at third year level. |
| 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. |

C3001: NOV 2017