

## **Overview**

The Master of Information Technology prepares you for work in the information technology industry at the highest levels. It provides you with the knowledge, understanding and skills to enable you to deal effectively with advanced issues involving the application of information technology in various domains.

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## **Notes**

You can enrich your degree by honing your academic and professional skills through the Monash Innovation Guarantee (MIG). The MIG is your unique opportunity to collaborate with renowned industry leaders and design innovative solutions that result in real social change. MIG will give you the leadership skills you will need to adapt and thrive in a rapidly changing world and is your chance to make connections before you graduate. The MIG unit may be credited in place of a free elective as a 6 credit point unit option. For information on eligibility please see [FREE](#).

## **Mode and location**

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### **On campus**

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#### **Clayton**

### **Learning outcomes**

These course outcomes are aligned with the [Australian Qualifications Framework and Monash Graduate Attributes](#).

Upon successful completion of this course it is expected that you will be able to:

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**1.**

apply problem solving skills and sound theoretical knowledge to the design and construction of innovative solutions based on Information Technology;

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**2.**

analyse, critically review and synthesise theories and techniques from the field of Information Technology;

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**3.**

apply, extend and generalise advanced techniques to solve complex problems and adapt to future changes in the field of Information Technology;

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**4.**

evaluate, with scientific rigour, the application and extension of theories and techniques from the field of Information Technology;

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**5.**

assess and apply industry standard tools and techniques for building complex software systems;

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**6.**

demonstrate professional skills including the ability to work productively in groups and develop successful projects, and communicate effectively with stakeholders within and outside the field of Information Technology;

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**7.**

critically evaluate, document and communicate ethical, legal and social issues affecting the use of Information Technology.

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**8.**

investigate Information Technology problems through independent research and a research thesis, or by utilising research methods for scholarly or professional purposes.

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### **Professional recognition**

This course is accredited by the Australian Computer Society (ACS) as meeting the standard of knowledge for professional-level membership.

### **Structure**

The course is structured in three parts: Part A. Foundation studies, Part B. Core studies, and Part C. Applied studies.

#### **Part A. Foundation studies**

These studies will provide an orientation to the field of information technology at graduate level. They are intended for students whose previous qualification is not in a cognate field.

#### **Part B. Core studies**

These studies draw on best practices within the broad realm of IT application, theory and practice. You will gain an understanding of real world IT problems and gain problem solving skills. Your study will focus on IT project management, software, network and systems areas.

#### **Part C. Applied studies**

The focus of these studies is professional or scholarly work that can contribute to a portfolio of professional development. You have two options:

- a program of coursework involving advanced study and an industry experience studio project.
- a research pathway including a thesis. If you wish to use this master's course as a pathway to a higher degree by research you should take this option.

### **Master's entry point**

Depending on prior qualifications you may receive entry level credit which determines your point of entry to the course:

- If you are admitted at entry level 1 you complete 96 credit points, comprising Part A, Part B and Part C.
- If you are admitted at entry level 2 you complete 72 credit points, comprising Part B and Part C.

Note: If you are eligible for credit for prior studies you may elect not to receive the credit and complete the higher credit-point option.

### **Course progression map**

The [course progression map](#) provides guidance on unit enrolment for each semester of study.

### **Requirements**

#### **96 credit points**

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#### **Part A. Foundation studies 24 credit points**

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You must complete the following units

[FIT9131](#)

[6 CP](#)

[Programming foundations in Java](#)

[FIT9132](#)

[6 CP](#)

[Introduction to databases](#)

[FIT9136](#)

6 CP

Introduction to Python programming

FIT9137

6 CP

Introduction to computer architecture and networks

**Part B. Core studies****48 credit points**

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You must complete the following units (36 credit points):

FIT5032

6 CP

Internet applications development

FIT5046

6 CP

Mobile and distributed computing systems

FIT5057

6 CP

Project management

[FIT5125](#)

[6 CP](#)

[\*\*IT research and innovation methods\*\*](#)

[FIT5136](#)

[6 CP](#)

[\*\*Software engineering\*\*](#)

[FIT5137](#)

[6 CP](#)

[\*\*Advanced database technology\*\*](#)

**Specified elective studies 12 credit points**

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You must complete one of the following units (6 credit points) and one level 5 elective unit (6 credit points) from the faculty or across the university. You must have the required prerequisites for the unit you choose. Note: Some units may have restrictions on enrolments.

[FIT5152](#)

[6 CP](#)

[\*\*User interface design and usability\*\*](#)

[FIT5171](#)

[6 CP](#)

**System validation and verification, quality and standards**

[FIT5225](#)

[6 CP](#)

**Cloud computing and security**

**Part C. Applied studies 24 credit points**

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You must complete either the Industry experience pathway or the Research option pathway

**Industry experience pathway 24 credit points**

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You must complete the following units (18 credit points) plus one FIT-coded Level 5 unit (6 credit points). You must have the required prerequisites for the unit you choose.

[FIT5120](#)

[12 CP](#)

**Industry experience studio project**

[FIT5122](#)

[6 CP](#)

**Professional practice**

## **Research pathway24 credit points**

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You must complete the following units.

Note 1: Enrolment in the research units is dependent on available supervisors and projects. Eligible students will be ranked based on their entire academic record and assessed for suitability to undertake the research component of this program.

Note 2: To be eligible for the research pathway:

You must have successfully completed at least 24 credit points of level 5 FIT-coded units; and have an overall average of at least 80% across all Level 5 units; and must have achieved at least a distinction (75%) in FIT5125 IT research methods; and achieved an overall course WAM of 70%.

If you have a WAM between 75-79% across all Level 5 units you must have successfully completed at least 24 credit points of level 5 FIT-coded units; and demonstrated research capability with written support from a prospective supervisor; and must have achieved at least a distinction (75%) in FIT5125 IT research methods; and have achieved an overall course WAM of 70%.

[FIT5126](#)

[6 CP](#)

[Masters thesis part 1](#)

[FIT5127](#)

[6 CP](#)

[Masters thesis part 2](#)

FIT5128

6 CP

Masters thesis final

FIT5122

6 CP

Professional practice

### **Alternative exit(s)**

You may exit this course early and apply to graduate with one of the following awards, provided you have satisfied the requirements indicated for that award during your enrolment in this master's course:

- Graduate Certificate of Information Technology (C4003) after successful completion of 24 credit points of study including FIT5136 Software engineering and FIT5057 Project management and two units (12 credit points) from Part A or Part B (excluding specified elective units) with no more than 6 credit points from Part A.
- Graduate Diploma of Information Technology (C5002) after successful completion of 48 credit points of study comprising all core studies units in Part B and two units (12 credit points) from Part A, or Part B (specified elective studies) with a maximum of 12 credit points from Part A.

### **Progression to further studies**

Successful completion of this course may provide a pathway to a graduate research degree.

Progression will be conditional on you completing the minor thesis research pathway (as described in Part C, Research Pathway) and achieving the minimum entry requirements for either Master of Philosophy (3337) or Doctor of Philosophy (0190).