

# Master of Digital Communications

Clayton School of Information Technology

[www.infotech.monash.edu.au/clayton](http://www.infotech.monash.edu.au/clayton)

**Course code:** 2406

**Course length:**  
1.5 years full-time or 3 years part-time

The Monash digital communications program covers a broad range of courses ranging from the short graduate certificate up to the masters degree by coursework in digital communications. The courses have been structured to provide an integrated program of postgraduate education in digital communications.

The aims of the digital communications program are to provide:

- a thorough understanding of the central communications and networking technologies: transmission systems, local networks and protocols
- practical and theoretical foundations to enable graduates to design, develop, specify, select, install and operate communications facilities in a wide range of applications areas
- a foundation of theory from which trends and future technologies can be evaluated.

The course currently draws students from a wide range of employment backgrounds, including programming, systems analysis, engineering, management, consultancy, auditing, marketing and teaching. The program is designed to provide graduates in fields such as computing, computer science or electrical engineering with specialist graduate-level education in topics such as digital communications technologies, communications architectures, protocols and network design.

The initial units introduce underlying principles and technologies, and the later units cover in-depth the theoretical and technological foundations of digital communications systems. The course examines the social and political aspects of communications networking, and the management structures for communications networks.

## Mode of study

The course is offered on-campus during the day at Clayton campus. A limited number of units are available in the evening at Clayton.

## Professional recognition

The Master of Digital Communication degree meets the professional-level membership requirements of the Australian Computer Society.

## Entry requirements

The normal entry requirement is a degree that is equivalent to an Australian bachelors degree in a discipline that provides a suitable basis for the course, eg computer science, data processing or electrical, electronic or communications engineering.

Applicants without degree qualifications may apply for the Executive Certificate in Information Technology, indicating their preference in the Master of Digital Communications. Entry to this masters program is subject to satisfactory achievement in the Executive Certificate in Information Technology. Approved units in the Executive Certificate program will be counted as credits towards the Master of Digital Communications. Applicants should also be able to demonstrate an ability to study at tertiary level. The number of places available to applicants in this category is limited. Applicants should note that demand for this course usually exceeds the quota of places available and consequently not everyone qualified for entry to the course can be admitted. Applicants are therefore advised to present their cases strongly when applying for the course.

Advanced standing in the program is available to applicants who hold a suitable postgraduate qualification, or who have a four-year or honours degree with significant emphasis on data communications or telecommunications.

## Course structure

The course consists of coursework units and either a project or a minor thesis, structured as follows.

**Structure A:** (a) At least eight units from the list of approved digital communications graduate units listed. No more than four of these units may be from group one on the list. (b) Up to two units which may be drawn from any postgraduate program of the university with the approval of the school or nominee. (c) A communications project (12 points), in which the student undertakes an investigation of some aspect of digital communications, leading to a project report, or in some circumstances the development of communications-oriented hardware or software.

**Structure B:** (a) At least six units from the list of approved digital communications graduate units listed. No more than four of these units may be from group one on the list. (b) Up to two units which may be drawn from any postgraduate program of the university with the approval of the school or nominee. (c) A communications minor thesis (24 points), in which the student undertakes a significant investigation of some aspect of digital communications, leading to a thesis which will be assessed by two examiners. (The minor thesis is expected to be at a significantly higher standard than the project in structure A. Students proceeding to a later PhD program would normally undertake the minor thesis as a demonstration of readiness for a research degree.)

### Group 1

FIT4014	Digital communications software
FIT4015	Digital communications technology and protocols
FIT4016	Information security
FIT4017	Network management
CSE4400	Systems programming 1

### Group 2

FIT5008	Digital communications project
FIT5009	Software engineering for communication systems
FIT5010	Advanced internet protocols and application
FIT5011	Advanced network design and performance
FIT5012	Digital coding and compression for communications
ECE5023	RF techniques
ECE5012	Applied digital signal processing
ECE5043	Optical communications
ECE5044	Telecommunications protocols
ECE5045	Network performance
ECE5024	Wireless communications
ECE5042	Communications theory
BUS5150	Project management
CPE5002	Network security
CSE5000	Distributed object technology
CSE5020	Distributed computation and simulation
CSE5210	Advances in information security
CSE5303	Advanced digital signal processing
CSE5501	Mobile and distributed computing systems
GCO5805	Multimedia computing and communications
GCO5807	Project management
IMS5007	Electronic commerce

Note: some units are offered only in alternate years. This list is subject to revision.

## Exiting with a lesser award

### Postgraduate Diploma in Digital Communications -

The diploma may be taken in one year of full-time study or two years of part-time study. It requires the completion of eight 6-point units, of which at least six must be drawn from Group 1 or Group 2 Digital Communications units.

### Postgraduate Certificate in Digital Communications -

The certificate may be taken in six months of full-time study or one year of part-time study. It consists of four 6-point units from Group 1 or Group 2 of Digital Communications units.

## Applications

Applications from domestic students for all on-campus graduate courses should be made directly to the Faculty of Information Technology admissions office at the Caulfield campus.

Application forms are available from the inquiry centre on telephone +61 3 9902 6011 or from the Faculty Admissions website: [www.infotech.monash.edu/admissions/](http://www.infotech.monash.edu/admissions/)

## International students

International students wishing to apply for full-fee-paying places should apply directly to:

### International Admissions

#### Monash University

Tel: +61 3 9627 4852

Fax: +61 3 9905 8297

Email: [miadmiss@monash.edu](mailto:miadmiss@monash.edu)

Web: [www.monash.edu.au/international/](http://www.monash.edu.au/international/)

International students must meet English proficiency requirements outlined on the International Admissions website above.

## Further information

### Clayton School of Information Technology

#### Monash University

Clayton Victoria 3800

Telephone: +61 3 9905 5200

Fax: +61 3 9905 5146

Email: [enquiries@csse.monash.edu.au](mailto:enquiries@csse.monash.edu.au)

IT Admissions: [admissions@infotech.monash.edu.au](mailto:admissions@infotech.monash.edu.au)

Disclaimer: The information in this brochure was correct at the time of publication, Monash University reserves the right to alter procedures, fees and regulations should the need arise. Students should carefully read all official correspondence, and other sources of information for students (such as websites) to be aware of changes to the information contained in this document. This information was published correct as at July 2006.

CRICOS code: 030798G

CRICOS provider: Monash University 00008C

MDC-06