

## WHAT PRE-REQUISITES DO I NEED?

You must have successfully completed an appropriate degree or an equivalent combination of qualifications and experience. You must be competent in tertiary level computing (SMCS) and computing and mathematics (SMCM). You may apply for credits against specific coursework subjects.

## WHERE DO I STUDY?

This course is located at Footscray Park Campus.

## WHAT DO I GET WHEN I FINISH STUDY?

When you complete your postgraduate study, you can pursue a career in computer science in government agencies and the private sector.

## ACADEMIC YEAR

The academic year commences in early March and extends through to the examination period in late November.

## ACCOMMODATION

### STUDENT VILLAGE

Comfortable budget-conscious self-catered accommodation is available at the Student Village, Maribyrnong, conveniently located only four kilometres from the Footscray Park Campus and nine kilometres from the centre of Melbourne. It is well serviced by public transport and the large Highpoint Shopping Centre. The student village is located in 12 hectares of parkland and provides accommodation for 500 students in 2, and 3 bedroom 'cluster-style' flats. 24hr computer lab, Sporting facilities, and support staff on-site 24/7.

## HOW DO I APPLY?

You should apply directly to the University using the Postgraduate Application Form. The University Postgraduate Application Form can be downloaded from the University website at <http://www.vu.edu.au/admissions>

## INTERNATIONAL STUDENTS

For specific information relating to courses available, entry requirements and application procedures for international students, please visit [www.vu.edu.au/international](http://www.vu.edu.au/international) for an updated list of courses offered to international students or contact Victoria University International (VUI) on +61 3 9919 1164.

## NEED MORE INFORMATION?

Contact the School of Computer Science and Mathematics  
Victoria University  
PO Box 14428  
Melbourne, Victoria 8001  
AUSTRALIA

Telephone: 03 9919 4687  
Facsimile: 03 9919 4050  
Email: [lutfar.khan@vu.edu.au](mailto:lutfar.khan@vu.edu.au)  
Web: <http://www.csm.vu.edu.au>

## CONTACT US

**THE FACULTY OF HEALTH, ENGINEERING AND SCIENCE**  
SCHOOL OF COMPUTER SCIENCE AND MATHEMATICS

PHONE: 03 9919 4492  
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OR

VISIT THE WEBSITE  
[WWW.VU.EDU.AU](http://WWW.VU.EDU.AU)

CRICOS Provider No. 00124K

# GRADUATE DIPLOMA MASTER OF SCIENCE IN COMPUTER SCIENCE COMPUTER AND MATHEMATICAL SCIENCES

FACULTY OF HEALTH, ENGINEERING AND SCIENCE

This publication is an information document for future students of Victoria University, every reasonable effort has been made to ensure that the information in this document is accurate, however it may be subject to change. September 2007. 10608.09.07.

## GRADUATE DIPLOMA IN: COMPUTER SCIENCE

COURSE CODE: SGCS  
CRICOS CODE: 015077M

## COMPUTER AND MATHEMATICAL SCIENCES

COURSE CODE: SGCM  
CRICOS CODE: 002825J

### COURSE DESCRIPTION

The Graduate Diploma programs are designed for non-computing graduates who want to acquire professional competence in Computer Science and/or the Mathematical Sciences.

Each Graduate Diploma course develops graduates who have a sound conceptual foundation, including practical understanding of recent developments in information technology and how these may be applied to solve a wide range of problems in business and industry.

### WHAT IS THE COURSE STRUCTURE AND WHAT IS INVOLVED?

Each course is offered on both a full-time (one year) and a part-time basis. Part-time students will normally take two years to complete the course. Lectures will normally be offered in the evenings, however, some of the subjects are available during the day.

Two streams of subjects are available:

Computer Science;  
Computer Programming;  
Information Systems;  
Multimedia & Networking;  
Software Engineering;  
Mathematical Sciences;  
Production and Distribution Management;  
Modelling for Finance;  
Data Analysis.

The courses provide maximum flexibility allowing specialisation in either one or a combination of the two streams.

To complete a Graduate Diploma, students are required to pass four Computer Science subjects and four Mathematical subjects.

Some Computer Science Subjects

- Object Oriented Programming GD1
- Information Systems
- Communication and Networks
- Introduction to Multimedia Systems

Data Structures and Programming

- Software Engineering
- Advanced Information Systems
- Network Operating System Administration
- Object Oriented Programming

Some Mathematical Sciences Subjects

- Financial Decision Support Systems
- Statistical Forecasting
- Quality Management and Statistics
- Optimisation Techniques
- Systems and Simulation Studies
- Communication and Networks
- Object Oriented Programming GD1
- Information Systems

### WHAT PRE-REQUISITES DO I NEED?

You need to have a first degree from a recognised university or institution. Preference will be given to applicants whose degree contains major studies in a quantitative discipline. Other applicants whose occupation or experience indicates that they have the capacity to succeed may be accepted into the course.

## MASTER OF SCIENCE IN COMPUTER SCIENCE

COURSE CODE: SMSC  
CRICOS CODE: 015078K

## COMPUTER AND MATHEMATICAL SCIENCES

The Masters programs develop a sound theoretical knowledge of contemporary Computer Science techniques and/or the techniques in one specified field of study from the Mathematical Sciences. Emphasis is also placed on the application of these techniques in areas of business and industry.

### WHAT IS THE COURSE STRUCTURE AND WHAT IS INVOLVED?

The course is offered on a full-time basis over two years or an equivalent part-time basis.

Credits for previous studies may be granted, where appropriate.

#### FIRST YEAR SEMESTER ONE

Approved Electives in Computer Science

#### FIRST YEAR SEMESTER TWO

Approved Electives in Computer Science

#### SECOND YEAR SEMESTER ONE

Approved Electives

#### SECOND YEAR SEMESTER TWO

Thesis  
Approved Electives

#### ELECTIVES

Forecasting  
Quality Management and Statistics  
Data Structures and Programming  
Thesis (1 Unit)  
Time Series Analysis  
Statistical Computing  
User Interface Design  
Decision Support Technology  
Internet Programming  
Computer Graphics  
Distributed Systems  
Database Design, Management and Administration  
Multimedia Systems Design and Development  
Mathematical Programming 1  
Simulation  
Sequencing and Scheduling  
Optimisation Techniques