Meet your course coordinator
Master of Engineering (Software)
Master of Engineering (Software with Business)

Dr Tim Miller (for Professor Shanika Karunasekera)
Master of Engineering (Software)

Combine mathematical, scientific, technical knowledge and creative skills.
With business

The Master of Engineering (with Business) recognises the need for engineers to understand the management of organisations.

Daniel Popec
Master of Engineering (with Business)
Course structure

- Software: 212.5 points core + 87.5 points elective = 300 points
- With Business: 275 points core + 25 elective = 300 points
- Up to 100 points of credit
Enrolment

- Advanced standing
- Changing subjects
- Timetabling clashes
- CREM (Class Registration Enquiry Management)
Study differences

- Unscheduled class time
- Self-directed learning
- Active discussion
- Argumentative writing style
- Grading style
“The marking system was a bit difficult to adjust to. It’s quite difficult to get that H1 (80+), they’re much rarer here.”

Fredrik, Germany
Learning styles

- Lectures
- Tutorials & Workshops
- Seminars
- Laboratories/practical classes
- Internships
- Studios & projects
- Online learning

Engineering & IT

South Lawn
Examinations

• Remain in Melbourne for the entire study period
• Final results release date: Friday 1 December 2017
Academic misconduct

- Plagiarism
- Collusion
- Working in groups

https://academichonesty.unimelb.edu.au/?_ga=1.180392610.445416620.14528279741
Library research skills

• Self-paced
• Basic and advanced materials
• Relate skills to your research area
• Access via LMS

Engineering & IT

www.lms.unimelb.edu.au/login/
Your student services online, on the phone and in person

- **Find all of your Uni info online**
  - students.unimelb: Comprehensive website for current students at Melbourne

- **Check our FAQs or ask online**
  - ask.unimelb: University's knowledge database
  - Join a chat

- **Call us Monday to Friday**
  - 13 MELB (13 6352)
  - Outside Australia: +61 3 9035 5511

**Visit us Monday to Friday**

- **Stop 1 at PARKVILLE**
  - All students
  - 757 Swanston Street (Main entrance off Grattan Street)

- **Stop 1 at SOUTHBANK**
  - VCA and MCM students only
  - 234 St Kilda Road, Southbank (Elisabeth Murdoch Building)

- **Health and Wellbeing services**
  - All students
  - 138 Cardigan Street, Carlton

Current opening hours: students.unimelb.edu.au/stop1
Helpful online pages:
students.unimelb.edu.au/balance
services.unimelb.edu.au/finder
Offers a range of services to help you succeed

ADMISSIONS INFORMATION
- Our courses
- Entry requirements
- Single subject studies
- Extension program

SKILLS AND DEVELOPMENT SERVICES
- Careers
- Academic skills
- Student connect
- Study abroad and exchange

ADMINISTRATIVE AND INFORMATION SERVICES
- Fees
- Transcripts and academic statements
- Scholarships and graduations

ENROLMENT SERVICES
- Course planning
- Enrolment assistance
- Special consideration
- Student equity

SUPPORT SERVICES
- Disability
- Elite athletes and international student support
- Housing
- Financial aid
- Safer Community Program

Ask online or check our FAQs
ask.unimelb.edu.au
Call us 13 MELB (13 6352)
PARKVILLE 757 Swanston Street
SOUTHBANK 234 St Kilda Road (VCA and MCM students only)
If you need ongoing assistance due to long-term circumstances, you can register with Student Equity and Disability Support.

We offer a range of support services:

- Alternative formats for written materials
- Support workers, such as note-takers
- Specialist equipment
- Assistive technology
- Accessible teaching spaces

Visit services.unimelb.edu.au/disability/students
Course Planning and Enrolment help

You can get course advice at any time from a Student Advisor at Stop 1. They can assist you to make informed decisions about:

- Subject selection
- Majors, minors and specialisations
- Study pathways
- Study Abroad and Exchange

Read our course planning page to get you started.

Access course planning resources
students.unimelb.edu.au/admin/course-planning/resources
As a student, you may have ongoing or episodic circumstances that adversely affect your academic performance. These could include:

<table>
<thead>
<tr>
<th>Example circumstances</th>
<th>Example study adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Chronic illness</td>
<td>• Leave of absence</td>
</tr>
<tr>
<td>• Disability</td>
<td>• Reduced study load</td>
</tr>
<tr>
<td>• Students with carer status</td>
<td>• Alternative exam arrangements</td>
</tr>
<tr>
<td>• Elite athletes or performers</td>
<td>• Support, such as note-takers</td>
</tr>
<tr>
<td>• Army Reservists</td>
<td>• Specialist equipment/technology</td>
</tr>
</tbody>
</table>

If you have ongoing circumstances that may affect your studies, find out how to register for assistance at [students.unimelb.edu.au/admin/special](students.unimelb.edu.au/admin/special)
SOFTWARE ENGINEERING

Dr Tim Miller (for Professor Shanika Karunasekera)
SOFTWARE ENGINEERING

The discipline of *Software Engineering* is about skillfully and artfully delivering quality *Software Systems* on time and on budget.

The discipline of using Science, Mathematics and Technical Principles to create working software systems.
SOFTWARE ENGINEERING

• Software engineering is a technical discipline
• Software engineering is about more than just programming
• Software engineering is about building large systems that work
OVERVIEW

• What to expect from your degree
• Degree structures
• Administration
• Policies and Practices
• Next Steps…
WHAT TO EXPECT FROM YOUR DEGREE

• Your degree aims to provide you with an understanding of:
  
• How to conceive, analyze, design, and implement software systems;

• How to manage the engineering of software systems;

• Some of the technologies used in the construction of software systems; and

• Some of the theory, technology and principles behind the construction of software.
WHAT TO EXPECT FROM YOUR DEGREE

The aim is to give you the foundation to learn, adapt and work in many different fields of computing and software engineering.

The degree cannot teach you every possible technology or software method in the short space of time that we have together.
# Course Structure

## YEAR 1

**Semester 1**
- COMP90038 Algorithms and Complexity
- COMP90007 Internet Technologies
- COMP20005 Engineering Computation
- COMP90041 Programming and Software Development

**Semester 2**
- SWEN30006 Software Modelling and Design
- COMP30026 Models of Computation
- INFO20003 Database Systems
- CIS Elective (3rd year CIS elective)

## YEAR 2

**Semester 3**
- SWEN90009 Software Requirements Analysis
- SWEN90016 Software Processes and Management
- ENGR90021 Engineering Communication
- CIS Foundations Elective

**Semester 4**
- SWEN90006 Software Testing and Reliability
- SWEN90014 Masters Software Engineering Project
- CIS Advanced Elective
- CIS Advanced Elective

## YEAR 3

**Semester 5**

**Semester 6**

[The University of Melbourne logo]
SOFTWARE ENGINEERING ELECTIVES

There is one slot called “CIS Foundation Elective”. You need to choose at least one subject from this list.

<table>
<thead>
<tr>
<th>CIS Foundation Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP90015 Distributed Systems</td>
</tr>
<tr>
<td>COMP90049 Knowledge Technologies</td>
</tr>
<tr>
<td>COMP90048 Declarative Programming</td>
</tr>
</tbody>
</table>
COMPUTER SCIENCE ELECTIVES

There are a number of slots called “CIS Advanced Elective”. This stands for Computer Science or Software Engineering Advanced Electives.

Computer Science electives are divided into three separate groups.

Each group has a **prerequisite** subject (CIS Foundation Elective) that you must take *before* you can take the other subjects in the group.
# KNOWLEDGE TECHNOLOGIES STREAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP90049</td>
<td>Knowledge Technologies</td>
</tr>
<tr>
<td>COMP90050</td>
<td>Advanced Database Systems</td>
</tr>
<tr>
<td>COMP90042</td>
<td>Web Search and Text Analysis</td>
</tr>
<tr>
<td>COMP90014</td>
<td>Algorithms for Functional Genomics</td>
</tr>
<tr>
<td>COMP90054</td>
<td>Software Agents</td>
</tr>
</tbody>
</table>
DISTRIBUTED SYSTEMS STREAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>COMP90015</td>
<td>Distributed Systems</td>
</tr>
<tr>
<td>COMP90024</td>
<td>Cluster and Cloud Computing</td>
</tr>
<tr>
<td>COMP90018</td>
<td>Mobile Computing Systems Programming</td>
</tr>
<tr>
<td>COMP90020</td>
<td>Distributed Algorithms</td>
</tr>
<tr>
<td>COMP90017</td>
<td>Sensor Networks and Applications</td>
</tr>
<tr>
<td>COMP90025</td>
<td>Parallel and Multicore Computing</td>
</tr>
</tbody>
</table>
# PROGRAMMING LANGUAGES STREAM

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMP90048</td>
<td>Declarative Programming</td>
</tr>
<tr>
<td>COMP90045</td>
<td>Programming Language Implementation</td>
</tr>
<tr>
<td>COMP90053</td>
<td>Program Analysis and Transformation</td>
</tr>
<tr>
<td>COMP90046</td>
<td>Constraint Programming</td>
</tr>
</tbody>
</table>
ADMINISTRATION

Administration falls into two (2) parts:

**Administrative** – STOP 1 – 757 Swanston Street Parkville

- Provides all the support related to course planning, enrolment assistance, special consideration requests, study equity, skill development services, fees, transcripts, scholarships, graduation, housing, financial aid etc.

**Academic**

- A/Prof Shanika Karunasekera handles course plans, subject permissions, credits and exemptions, varying your subjects and everything related to the content of your degree. Dr Tim Miller will fill this role in semester 2, 2017.