

# MASTER OF ACTUARIAL SCIENCE

Assoc. Professor Shuanming Li

Program Director

**WELCOME  
TO THE  
WORLD  
CLASS**



# THE DISCIPLINE

- **What is an actuary**
- **Why become an actuary**
- **How to become an actuary**
- **Where do actuaries work**

## What is an actuary?

- Actuaries are professionals who are qualified through Professional exams and work experience
- Being an actuary means having highly valued mathematical skills and expertise
- Actuaries are problem solvers and strategic thinkers with a deep understanding of financial systems
- Actuaries use their skills to help measure the probability and risk of future events
- Accountants record and analyse financial information focusing on what is happening now, and what happened in the past

# THE DISCIPLINE

- **What is an actuary**
- **Why become an actuary**
- **How to become an actuary**
- **Where do actuaries work**

## Why become an actuary?

- An actuarial career can be one of the most diverse, exciting and financially rewarding careers
- An actuarial career can take you anywhere in the world
- Actuaries are a respected global community of professionals
- Actuaries enjoy a good work/life balance

# THE DISCIPLINE

- **What is an actuary**
- **Why become an actuary**
- **How to become an actuary**
- **Where do actuaries work**

## How to become an actuary

- Two types of actuaries: associate actuaries (AIAA, ASA); and fully qualified actuaries (FIAA, FSA)
- AIAA: complete Part I (Foundation) and Part II, plus three years of work experience and a one day professionalism course
- FIAA: AIAA, Part III, and a professionalism course
- From AIAA to FIAA: average 5-8 years
- For master of actuarial science students, 7 out of 8 Part I subjects can be exempted; minimum 2 years for CT3, Part II.

# THE DISCIPLINE

- What is an actuary
- Why become an actuary
- How to become an actuary
- Where do actuaries work

## Where do actuaries work?

- life insurance
- health insurance
- general insurance
- reinsurance
- superannuation
- investment
- risk management
- banks and other financial institutions
- government
- education
- data analytics
- IT (cyber risks)
- E-commerce
- Sports-bet

# THE PROGRAM

- **Master of Actuarial Science** is for students who hold a bachelor's degree that includes a strong mathematical component and who wish to become actuaries (or work in a related field)
- It Provides training in actuarial theory and practice, from the foundation to advanced topics, specialising in quantitative techniques for insurance, reinsurance, superannuation, and financial risk modelling.
- The Master of Actuarial Science provides the fastest graduate pathway to entry to the actuarial profession.
- With sufficient high results students are able to obtain exemptions from exams of the Actuaries Institute of Australia (AIA)



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU

# THE PROGRAM DIRECTOR



- Assess applications
- Provide advice on subject selection and career paths
- Provide references for job hunting and further studies
- Reply to enquires
- Don't reply to enquires on particular subjects

# Academic Expectations of Graduate Students

- Do your reading and class preparation
- Do tutorial questions beforehand
- Ask questions in class
- Approach staff if you need help
- Participate in team activities
- Follow assessment guidelines
- Read your university emails - they contain important information
- Be an active learner

## REMEMBER:

- We want you to succeed and are here to facilitate your learning.
- The more you put in to your studies, the more you will get out!



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU



# BE AN ACTIVE LEARNER

## Workload

Every student should devote no less than **9 hours study per subject** per week outside of the classroom.

A full-time study load of 4 subjects per semester requires at least **48 hours study per week** (12 hours in class + 36 hours outside of class).

## Study Skills

The University's **Academic Skills** team provide online resources, workshops and individual tutorials to improve your study skills and help you reach your academic potential.

Visit the website for more information: [services.unimelb.edu.au/academicskills](https://services.unimelb.edu.au/academicskills)

# How to achieve good marks in actuarial exams

- Actuarial exams are relatively long and intense
- Pay attention to mid-semester exams
- Mixture of derivations and calculations
- Be familiar with using a calculator
- Attend all your classes and tutorials
- Do not wait until the final exam period to review
- Do a lot of exercises: specimen exam papers, past exam papers, problem sets, past CT exams
- Exam skills, speed, accuracy!

## REMEMBER:

- Only one calculator is permitted:  
Casio FX82  
(with any suffix)
- 15-minutes reading time



# PROGRAM STRUCTURE

The Master of Actuarial Science is designed to be completed in two-years of full time study and requires completion of 200 points/16 subjects.

- 6 Core subjects
- 2 Capstone subjects
- 8 Elective subjects

It is recommended that students take four core/capstone, and four elective subjects in both the first and second years of the program.

## ELECTIVES

Electives are to be taken from (1) from the Master of Management elective subject listings; or (2) Other master subjects in actuarial studies, economics, finance, and mathematics, as approved by the program director.



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU

# Suggested Study Plan

SEMESTER 1		SEMESTER 2	
Mathematics of Finance I	CORE	Mathematics of Finance II	CORE
Life Insurance Models I	CORE	Life Insurance Models 2	CAPSTONE
Elective	ELECTIVE	Elective	ELECTIVE
Elective	ELECTIVE	Elective	ELECTIVE

SEMESTER 3		SEMESTER 4	
Mathematics of Finance III	CORE	Life Contingencies	CAPSTONE
Insurance Risk Models	CORE	Statistical Techniques in Insurance	CORE
Elective	ELECTIVE	Elective	ELECTIVE
Elective	ELECTIVE	Elective	ELECTIVE

*Download  
and print the  
Suggested  
Study Plan  
from the MBS  
course  
planning site*

# Study plan for Nankai students

<b>SEMESTER 1</b>		<b>SEMESTER 2</b>	
Mathematics of Finance I	CORE	Mathematics of Finance II	CORE
Life Insurance Models I	CORE	Life Insurance Models 2	CAPSTONE
Mathematics of Finance III	CORE	Life Contingencies	CAPSTONE
Insurance Risk Models	CORE	Statistical Techniques in Insurance	CORE



**WELCOME TO THE  
WORLD CLASS**

**MBS.EDU**

# TIPS ON CHOOSING ELECTIVES

- Identify the subjects you have an interest in
- Check pre-requisite requirements and days/times subjects are offered using the online handbook ([handbook.unimelb.edu.au](http://handbook.unimelb.edu.au))
- Challenge yourself
- Consider professional exemptions



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU

# Professional exams and exemptions

Institute Subject	University Subject
<i>Part I</i>	
CT 1 Financial Mathematics	ACTL90001 Mathematics of Finance I
CT 2 Finance and Financial Reporting	ACCT90004 Accounting for Decision Making FNCE90060 Financial Management FNCE90018 Corporate Financial Policy
CT 3 Probability and Mathematical Statistics	MAST20004 Probability MAST20005 Statistics
CT 4 Modelling	ACTL90006 Life Insurance Models I ACTL90007 Life Insurance Models II
CT 5 Contingencies	ACTL90005 Life Contingencies
CT 6 Statistical Methods	ACTL90008 Statistical Techniques in Insurance ACTL90004 Insurance Risk Models



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU

# Professional exams and exemptions

Institute Subject	University Subject
<i>Part I</i>	
CT 7 Economics	ECON90015 Managerial Economics ECON90032 Macroeconomics for Managers ECON90047 Macroeconomics 2
CT 8 Financial Economics	ACTL90002 Mathematics of Finance II ACTL90003 Mathematics of Finance III
<i>Part II</i>	
<b>Part II A:</b> The Actuarial Control Cycle	ACTL90010 Actuarial Practice and Control I ACTL90011 Actuarial Practice and Control II
<b>Part II B:</b> Investment and Asset Modelling	ACTL90009 Actuarial Practice and Control III





# GRADUATE DIPLOMA IN ACTUARIAL SCIENCE

## Exit Point

Students enrolled in the Master of Actuarial Science who are either unable, or who choose not to continue with their studies, may be eligible to exit with a **Graduate Diploma in Actuarial Science**.

Students must have successfully completed four core subjects, four elective subjects and be in good standing to be eligible to be awarded the Graduate Diploma in Actuarial Science.



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU

# Useful websites

**The Master of Actuarial Science Students' Guide can be found at:**  
[fbe.unimelb.edu.au/economics/ACT/courses/current\\_students](http://fbe.unimelb.edu.au/economics/ACT/courses/current_students)

**The Centre for Actuarial Studies:**  
[fbe.unimelb.edu.au/economics/ACT](http://fbe.unimelb.edu.au/economics/ACT)



**WELCOME TO THE  
WORLD CLASS**

**MBS.EDU**

# Contacting Academic Staff

## Program Director

Associate Professor Shuanming Li

E: [shli@unimelb.edu.au](mailto:shli@unimelb.edu.au)

P: 8344 5316

Office hours: Contact by email or make an appointment

## Subject coordinators

- **Subject co-ordinators** will advise you on how you can contact them and/or what their consultation times are in the first week of classes
- **All staff** email addresses can be found using the University's online directory  
[directory.unimelb.edu.au](http://directory.unimelb.edu.au)

# COURSE PLANNING

The **MBS Course Planning website** contains important study planning information for your program



**VISIT THE COURSE PLANNING SITE FOR INFORMATION ON:**

- Subject selection
- Class registration
- Advanced Standing
- Recommended study plans
- Student Support


[fbe.unimelb.edu.au/students/mbs](http://fbe.unimelb.edu.au/students/mbs)

**STOP** 

Your student services  
online, on the phone and in person




**Find all of your  
Uni info online**

 [students.unimelb](https://students.unimelb)

Comprehensive website for  
current students at Melbourne



**Check our FAQs  
or ask online**

 [ask.unimelb](https://ask.unimelb)

University's knowledge database



**Join a chat**

9am – 7pm  
Monday to Friday



**Call us**

**13 MELB (13 6352)**

Outside Australia: +61 3 9035 5511

9am – 5pm  
Monday to Friday



**Visit us from 9am – 5pm, 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

**GET  
UPDATES  
ONLINE**

FOLLOW US FOR THE LATEST UPDATES:



[@uomstop1](https://twitter.com/uomstop1)

FIND US ON FACEBOOK:



[uomstop1](https://www.facebook.com/uomstop1)



[firstyearatunimelb](https://www.facebook.com/firstyearatunimelb)

# My Unimelb

My Unimelb is your personal portal to your enrolment (study plan) and email. It can be accessed at [my.unimelb.edu.au](http://my.unimelb.edu.au) using your University email account username and password.

After your have completed your online enrolment, you can use My Unimelb to register for classes, change subjects and even update your address details.

The screenshot shows the my.unimelb.edu.au student portal. At the top left is the University of Melbourne logo. The main heading is "my.unimelb.edu.au". Below this is a "Welcome to the University of Melbourne's student portal" section. A paragraph explains that the portal provides a single place for students to access information and undertake studies. It lists various services available, such as viewing enrolment details, checking exam timetables, and managing library borrowing. A "Log on to my.unimelb" button is present. To the right, there is a "System status" box indicating that all students systems are currently working. Below the welcome section is a "Key features" grid with icons and descriptions for: Customise your view, Emails & calendar, Notices, Student admin, Library, Campuses & services, Mobile site, Research, and Learning space. At the bottom, there is a section titled "And more coming soon..." with icons for mobile site, research, and learning space.

© University of Melbourne

## my.unimelb.edu.au

### Welcome to the University of Melbourne's student portal

The student portal provides a single place for you to access all the information you need to enjoy and undertake studying at the University of Melbourne.

You can view and manage your personal and enrolment details, check your exam timetable and results, manage your library borrowing, access careers and accommodation information as well as follow University news and activities on social media sites like Facebook.

If you are unable to log in, please go to <http://accounts.unimelb.edu.au> and reset your password. If you continue to experience difficulty, please contact 13 MELB (13 6362).

If you are a University of Melbourne staff member responsible for managing my.unimelb please visit the [Support Portal](#).

[Log on to my.unimelb](#)

**System status**

All students systems are currently working

[View system status details](#)

#### Key features

- Customise your view**  
Tailor my.unimelb screens to view what matters to you in the order you want.
- Emails & calendar**  
Access your university emails and calendar right from my.unimelb.
- Notices**  
Receive messages from the university specifically targeted to you based on your degree, studies, campus, etc.
- Student admin**  
Manage your enrolment, view information regarding your timetable, exams, results, graduation, fees and much more.
- Library**  
View and manage your University of Melbourne library borrowings, search the catalogue and access the main library services available to students.
- Campuses & services**  
Get quick access to all the campuses maps and services available to students regarding accommodation, careers, health & wellbeing, etc.
- Mobile site**  
Access my.unimelb on the go with a site especially made for mobile devices like iPhones and Android phones.
- Research**  
Available to Postgraduate Research students only. Manage your research details and workflow and access information about funding, scholarships, etc.
- Learning space**  
Learning space provides a range of online tools to support your studies.

**And more coming soon...**

# CREATING YOUR CLASS TIMETABLE

- Students must enrol in subjects for the whole year
- Once enrolled, you must register in classes for Semester 1
- To register, log into the student portal [my.unimelb.edu.au](https://my.unimelb.edu.au) and select your preferred classes from the options available

Trouble  
registering in  
classes?



Log a **CREM** Request:  
[students.unimelb.edu.au/admin/registration](https://students.unimelb.edu.au/admin/registration)

## PLEASE NOTE:

- If you are unable to register for an elective because classes are full or clash with another subject, you must choose a different elective.
- If you are unable to register for a compulsory subject because classes are full or clash with another compulsory subject, log a registration enquiry.

# ADVANCED STANDING

## What is Advanced Standing?

Students who have completed **undergraduate-level** subjects that are equivalent to compulsory MBS subjects (foundation or core subjects), may be granted subject **exemptions**. This does not reduce the number of subjects a student must complete, but allows them to take electives in place of the exempted subjects.

Students who have completed **graduate-level** studies that are equivalent to compulsory MBS subjects may be offered **credit**. Credit **does** reduce the number of subjects a student must complete.

## If you have been granted Advanced Standing:

- This will be stated in your letter of offer for the program
- If you have received an exemption, contact Stop 1 to have the exempted subject replaced with an elective



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU



# ADVANCED STANDING

All students are assessed for advanced standing when they apply for admission to an MBS program.

If you haven't received advanced standing but believe you *are* eligible, you may submit an application for a second assessment online:  
[students.unimelb.edu.au/admin/credit](https://students.unimelb.edu.au/admin/credit)

**IMPORTANT:** Applications for advanced standing should only be submitted once, prior to commencing your program.

## Application requirements

Applications for advanced standing must include the following supporting documentation:\*

- Academic transcripts
- Detailed subject outline/s from a published university source (e.g. university handbook) for the year you completed the subject.
- Documents in a language other than English must be translated by a certified professional translator.

\*Students who completed their prior studies at UoM do not need to submit supporting documentation.



**WELCOME TO THE  
WORLD CLASS**  
MBS.UNIMELB.EDU.AU

# STUDENT CARD

You will need a UoM student card for administrative transactions, proof of identification for exams, access to study spaces and your library account. You should have your student card with you whenever you are on campus.

## How to get your student card

You will need to:

1. Complete your course enrolment, including enrolling into subjects.
2. Upload your photograph via the CaptureME portal.
3. Wait for a confirmation email (this can take up to 24 hours). The email will let you know how to receive your student card (i.e. via post or collection).

**Further information:** [students.unimelb.edu.au/admin/student-card](https://students.unimelb.edu.au/admin/student-card)



QUESTIONS?

