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 filed)

• 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)
THE PROGRAM DIRECTOR

- Assess applications
- Provide advice on subject selection and career paths
- Provide references for job hunting and further studies
- Reply to enquiries
- Don’t reply to enquiries 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!
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
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
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.
## Suggested Study Plan

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
<th>SEMESTER 3</th>
<th>SEMESTER 4</th>
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<tbody>
<tr>
<td>Mathematics of Finance I</td>
<td>CORE</td>
<td>Mathematics of Finance III</td>
<td>CORE</td>
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<tr>
<td>Life Insurance Models I</td>
<td>CORE</td>
<td>Life Contingencies</td>
<td>Life Contingencies</td>
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*Download and print the Suggested Study Plan from the MBS course planning site*
Study plan for Nankai students

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<tr>
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<td>CORE</td>
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<td>Life Insurance Models I</td>
<td>CORE</td>
<td>Life Insurance Models 2</td>
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<tr>
<td>Mathematics of Finance III</td>
<td>CORE</td>
<td>Life Contingencies</td>
<td></td>
</tr>
<tr>
<td>Insurance Risk Models</td>
<td>CORE</td>
<td>Statistical Techniques in Insurance</td>
<td>CORE</td>
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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)
• Challenge yourself
• Consider professional exemptions
<table>
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<tr>
<th>Institute Subject</th>
<th>University Subject</th>
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<tbody>
<tr>
<td><strong>Part I</strong></td>
<td></td>
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<tr>
<td>CT 1 Financial Mathematics</td>
<td>ACTL90001 Mathematics of Finance I</td>
</tr>
<tr>
<td>CT 2 Finance and Financial Reporting</td>
<td>ACCT90004 Accounting for Decision Making</td>
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<td></td>
<td>FNCE90060 Financial Management</td>
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<td></td>
<td>FNCE90018 Corporate Financial Policy</td>
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<tr>
<td>CT 3 Probability and Mathematical Statistics</td>
<td>MAST20004 Probability</td>
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<td></td>
<td>MAST20005 Statistics</td>
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<tr>
<td>CT 4 Modelling</td>
<td>ACTL90006 Life Insurance Models I</td>
</tr>
<tr>
<td></td>
<td>ACTL90007 Life Insurance Models II</td>
</tr>
<tr>
<td>CT 5 Contingencies</td>
<td>ACTL90005 Life Contingencies</td>
</tr>
<tr>
<td>CT 6 Statistical Methods</td>
<td>ACTL90008 Statistical Techniques in Insurance</td>
</tr>
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<td>ACTL90004 Insurance Risk Models</td>
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## Professional exams and exemptions

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<td><strong>Part I</strong></td>
<td></td>
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<tr>
<td>CT 7  Economics</td>
<td>ECON90015 Managerial Economics</td>
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<tr>
<td></td>
<td>ECON90032 Macroeconomics for Managers</td>
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<tr>
<td></td>
<td>ECON90047 Macroeconomics 2</td>
</tr>
<tr>
<td>CT 8  Financial Economics</td>
<td>ACTL90002 Mathematics of Finance II</td>
</tr>
<tr>
<td></td>
<td>ACTL90003 Mathematics of Finance III</td>
</tr>
<tr>
<td><strong>Part II</strong></td>
<td></td>
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<tr>
<td><strong>Part II A:</strong> The Actuarial Control Cycle</td>
<td>ACTL90010 Actuarial Practice and Control I</td>
</tr>
<tr>
<td></td>
<td>ACTL90011 Actuarial Practice and Control II</td>
</tr>
<tr>
<td><strong>Part II B:</strong> Investment and Asset Modelling</td>
<td>ACTL90009 Actuarial Practice and Control III</td>
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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.
Useful websites

The Master of Actuarial Science Students’ Guide can be found at: fbe.unimelb.edu.au/economics/ACT/courses/current_students

The Centre for Actuarial Studies: fbe.unimelb.edu.au/economics/ACT
Contacting Academic Staff

Program Director
Associate Professor Shuanming Li
E:  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
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
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

**Call us**
13 MELB (13 6352)
Outside Australia: +61 3 9035 5511
9am – 5pm
Monday to Friday

**Join a chat**
9am – 7pm
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

FIND US ON FACEBOOK:
uomstop1
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 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.
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 and select your preferred classes from the options available

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.

Trouble registering in classes?

Log a CREM Request: students.unimelb.edu.au/admin/registration
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
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

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.
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
QUESTIONS?