MANAGING RISK AND IDENTIFYING OPPORTUNITY

Why study Actuarial Science?
Discover how organisations solve commercial problems and develop the analytical skills to design solutions to help businesses plan for the future.

What is Actuarial Science?
Actuarial science involves applying mathematics to evaluate risk and opportunity and analysing the likelihood of future events. As a commercial function, it is key to financial security and protects companies from financial loss. It also influences some of society’s most important economic projects.

Actuaries manage risk. They combine analytical skills, business knowledge and an understanding of human behaviour to help companies plan for the future and protect themselves in a number of commercial contexts.

By understanding the nature of risk, actuaries can predict and evaluate the likelihood of future events such as floods, fires, car accidents or changes in life expectancy. Then, using information gathered from historic data and a range of mathematical models and forecasting concepts, they are able to design solutions for businesses to help them plan for, or prevent, undesirable events.

For example, actuaries are the people who determine how likely it is that you could have a minor car collision from when you get your licence to when you turn 25 and then work out how much to charge for your car insurance. They are also the people who work out how much money people need in their superannuation to retire comfortably.

Where will it take you?
Every area of business is subject to risk, so actuaries find work across a huge range of financial and non-financial industries.

Gain employment in:
- Academia
- Actuarial firms
- Banking
- Climate change
- Consulting
- Education
- Finance
- Government
- Healthcare
- Insurance
- Investment
- Mining
- Superannuation
- Telecommunications

Work with a range of other professionals in:
- Asset management
- Auditing
- Banking
- Data analysis
- Financial planning
- Risk management
- Stockbroking
WAYS TO STUDY ACTUARIAL SCIENCE

At Monash Business School you can study to become an actuary with a specialist Bachelor of Actuarial Science degree, or choose actuarial studies as a major in a Bachelor of Commerce.

Bachelor of Actuarial Science

A Bachelor of Actuarial Science will give you technical and analytical skills. It covers financial accounting, microeconomics, macroeconomics and economic statistics. Learn how to apply mathematical concepts to real-life scenarios and gain in depth actuarial skills from day one.

While the course is specifically designed to help students gain professional accreditation with the Actuaries Institute, you will still have the flexibility to study other commerce subjects within the degree.

Bachelor of Commerce – actuarial studies major

A Bachelor of Commerce will give you analytical and conceptual skills. It covers leadership, innovation and policy development. Learn to use data, solve problems and make informed investment and capital-raising decisions. Choose an actuarial studies major to learn how to use data, analytics, econometrics and statistics to identify opportunities and manage risk.

PROGRAM STRUCTURE

The Monash actuarial program is designed to give students a solid foundation in actuarial science, in the context of a broader understanding of business and the financial sector. Students who complete the Bachelor of Actuarial Science or major in actuarial studies to adequate standard are able to apply for exemptions with the actuaries institute and become an accredited associate.

The Monash Actuarial Program covers:

- All of the Institute's Foundation Program (Part 1)
- The University component of the Actuary Program (Part 2).

These are the main steps towards becoming an associate of the actuaries institute and calling yourself an actuary, and further external study and work experience can lead to becoming a Fellow of the Actuaries Institute.

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<th>ACTUARIES INSTITUTE FOUNDATION PROGRAM (PART 1)</th>
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<td>Business and economic statistics</td>
<td>Statistical thinking</td>
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<td>Probability and statistical inference for economics and business</td>
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<td>CS2 Risk modelling and survival analysis</td>
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<tr>
<td>CM1 Actuarial mathematics</td>
<td>Business and economics statistics</td>
<td>Actuarial cash flow modelling</td>
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<td>CM2 Financial engineering and loss reserving</td>
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<td>CB1 Business finance</td>
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<td>Principles of macroeconomics</td>
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<th>ACTUARY PROGRAM (PART 2)</th>
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<tr>
<td>Actuarial control cycle</td>
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<td>Actuarial practice 1</td>
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<td>Data analytics principles</td>
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<td>Introduction to machine learning</td>
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*Note: Changes will be made with effect from 2023 onwards.*
WHY STUDY ACTUARIAL SCIENCE AT MONASH BUSINESS SCHOOL?

Advanced skillsets and career edge
Gain the high-level skills required for a career in business
Actuaries are typically employed by insurance and accounting firms, but an actuarial career can be one of the most diverse careers in the world. Actuarial skills are valued on a range of projects for auditing, risk management, data analysis and financial planning. Many different organisations now employ dedicated actuarial teams. Use your skills to:

- Decide on a company’s charge for insurance and set aside funds to pay insurance claims
- Implement the government budgets to support programs such as Medicare or the NDIS
- Build and use models and statistics to determine the likelihood of certain events, such as which suburbs of Victoria are more likely to experience floods or bushfire
- Set the retirement age to ensure our economy will still function as people start to retire.

Integrated learning design
Experience real-life work situations and apply your knowledge
We work closely with employers to ensure you are prepared for the work force.
As an actuarial student, you can complete Capstone units, based on integrated learning design, to experience real-life work situations to apply your knowledge.

Double degree options
Double degrees with Monash Business School
A double degree with Monash Business School offers you a sound depth of knowledge by allowing you to study two disciplines from within the Business School. Combine a Bachelor of Actuarial Science with a Bachelor of Commerce. Or combine a Bachelor of Commerce (majoring in actuarial studies) with a Bachelor of Economics or a Bachelor of Finance.

Double degrees with other faculties
A double degree with another faculty offers you a breadth of knowledge, as you study across disciplines and explore two interests. Combine a Bachelor of Commerce (majoring in actuarial studies) with a number of different degrees from other faculties, including a Bachelor of Engineering (Honours), a Bachelor of Science or even a Bachelor of Biomedical Science.

Rankings and accreditation in Australia
Monash Business School ranked in the top 100 Business Schools worldwide in the Times Higher Education World University Rankings, 2022. We are the largest business school in Australia and Monash University is a member of the Group of Eight.
Monash Business School is very proud to have been awarded ‘triple accreditation’ by three global accrediting bodies. We are one of only 97 business schools in the world – and the only institution within Victoria – to have achieved this accreditation.
International study program

Learn in a range of countries and environments
Choose an international study program as an elective unit to explore how culture affects industry practices. Eligible students undertaking this unit in the summer semester participate in theoretical workshops before spending two weeks in Europe* during January and/or February. The program includes visits to organisations such as the United Nations Food and Agriculture Organisation, Bank for International Settlements, OECD and the World Bank, PwC and Deloitte.

Work-integrated learning

Put your study into practice, in a workplace
Choose an industry-based learning elective to integrate studying and working in your field. Previous students have had practical placements with Deloitte, EY, PwC, Telstra and the four major Australian banks, to name a few. Spend time in a consulting firm, a corporate organisation, a not-for-profit, or a social enterprise.

Professional business challenges

Test your skills on real-life business issues
Participate in a business challenge with other business school students. These events are hosted by our partners in industry and professional associations. Monash teams have won the Australian finals and represented Australia in the global finals of the UBS Challenge and the Chartered Institute of Management Accountants (CIMA) Global Business Challenge.

Professional accreditation

Gain professional recognition and in some cases, the right to practise
Gain professional recognition and in some cases the right to practise. Components of your study can help you gain professional accreditation. You can use your study to apply for actuarial exemptions from the Actuaries Institute. Parts 1 and 2 are required to become an Associate of the Actuaries Institute and be qualified to work as an actuary according to local and international standards.

Further study options

Monash Business School is a launching pad for the leaders, innovators and CEOs of the future. Many of our most successful graduates have studied beyond their first degrees to carve out their niches, build leadership skills, change career directions or develop specialist skills for senior industry roles. While you might be eager to get out into the workforce, a year or two of further study can give you a significant competitive advantage when you ultimately set off to build a career.

We offer:

- Bachelor of Commerce (Honours) – Actuarial Studies
- Graduate Certificate of Business
- Graduate Diploma of Business
- Master of Actuarial Studies
- Master of Applied Econometrics
- Doctor of Philosophy – Actuarial Studies

*Subject to change based on global conditions.