Statistics)

numbers of possible options. For example, in a range of areas require the analysis of huge
to enable further technological developments
of many value-adding industries in Australia.

technologies. They are essential to the prosperity
specific to particular industries or pursuing more
have the option of undertaking studies that are
through this major including applied
There are a wide range of streams available
models that may be used to test theories and
mathematics to analyse data and to build financial
studies is that graduates are skilled in finance
commerce studies with a relevant mathematical
Mathematical Sciences & Finance combines both
BSc (Mathematical Science
areas.

International Students

Insurance companies employ
Industrial statistics and time series analysis.
In engineering, statistical measurements help
In business, statistics can be used for assessing
are identified using information built up from
change on natural fauna. Health and biomedical
provide better understandings of the health
than many people would expect. In biology,
statistics can be far more varied and interesting
forecasting of economic trends or mapping
need to be managed and optimised ‘intelligently’,
examples include industry where processes
number of possibilities. The development of this
anticipated or writing complex algorithms required
in this booklet may not be applicable to
information, as some information contained
or phone +61 8 9266 7331 for further
Please refer to international.curtin.edu.au
more information

- Standard university entry requirements, as
- International students. Australian citizens

Further Study Options

For a global perspective the following options are further widely studied to
- Master of Science (Mathematical Science)
- Master of Quantitative Finance
- Master of Finance
- Bachelor of Science (Actuarial Studies)

More About: ACTUARIAL SCIENCE & MATHEMATICS

Entry Requirements

Graduate profile

Bhavesh Haria, BSc (Actuarial Science)

Bhavesh Haria with his family in 2000. He arrived in Australia shortly after completing his Part II optional work placement in London in 2004. When he returned he worked for a few weeks at the Sydney Cricket Ground before starting a career
in insurance. After spending some time working for a national provider of insurance, he
joined the Commonwealth Bank as an analyst for the Business Customers team. He then
joined the Department of Treasury and Finance as a graduate in 2006. Bhavesh now works in
the Superannuation Department and is responsible for administering a large
superannuation fund. He enjoys travelling, with Argentina being one of his
favourite destinations. He is currently working towards a PhD in Finance and
Agricultural Economics at Curtin University. Bhavesh received his
master of actuarial science degree from Curtin University in 2007. He is currently
employed as an actuary with the Commonwealth Bank. His research interests
include market risk and stochastic processes, and he is currently working on
projects related to these areas.
A range of exciting programs are available through the Department of Mathematics and Statistics. Students have the option of undertaking studies that are specific to particular industries and professionally accredited, or to take the general stream of study that allow for a wide range of career opportunities. Common to all mathematics degrees is that students graduate with strong skills in logic, problem-solving and reasoning. Mathematics is not just about numbers, it is a way of thinking that is valuable to many employers outside the discipline.

Where Do Maths Graduates Work?

1. Curtin is one of only five universities in Australia offering an Actuarial program that is professionally accredited by the Institute of Actuaries of Australia, Australia.
2. Industrial optimisation and modelling is a significant growth area that uses mathematics, particularly those with higher degrees in computer science. In this development, mathematics graduates work in research with organisations concerned with security and defence builds up mathematical expertise to meet the military needs. Curtin graduates work for the Defence Science and Technology Organisation (DSTO) and other related departments.
3. Actuaries work in industries that are concerned with risk. These may range from a wide range of factors such as illness, sickness or disability of an individual; the effects of natural disasters (e.g., earthquakes, cyclones, fire); the effects of economic, social or political change. Actuarial Science is the insurance industry. However, Actuaries are also involved in areas such as social benefits such as pensions, disaster management, farming and even in sometimes life and financial management.

Courses: Actuarial Science

Year 1

Semester 1

Mathematics 102 or 104

Statistics Data Analysis 101

Probability 101

Applied Maths Modelling 302

Actuarial Economics 302

Life Contingencies 302

Semester 2

Mathematics 101 or 103

Financial Mathematics 301

Practical Mathematical Financial Techniques 301

Mathematical Statistics 202

Finance (Principles) 215

Year 2

Semester 1

Semester 2

Mathematics 202 or 204

Mathematics 201 or 205

Actuarial Economics 301

Actuarial Economics 302

Actuarial Economics 303

Actuarial Economics 304

Statistical Data Analysis 102

Statistical Data Analysis 103

Actuarial Science

Prospective Students...

About Curtin

Ask a Student

Career Development

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Course Structure - Actuarial Science

Professional Recognition*

• Australian Society of Operations Research
• Australian Institute of Banking and Finance
• Australian Institute of Management
• The Statistical Society of Australia
• Australian Marketing Institute

*Professional accreditation will be dependant on choice of course and major area of study.