

# UTS: MATHEMATICS & FINANCE

## BACHELOR OF MATHEMATICS AND FINANCE

UAI 2007 – 80.95

When Australia's financial system was deregulated, employers began to need a new type of graduate trained in mathematics, business and finance. The studies in business and finance are complemented by mathematical, statistical and computing skills and knowledge. This course was the first in Australia designed to meet this need.

### CAREER OPTIONS

Financial institutions, large corporations and government instrumentalities seek graduates of this course to take up rewarding positions in quantitative and financial analysis. Employment opportunities include stock market analysis, providing advice on portfolio management, option pricing, prediction of movements in international money markets, financial risk management, and other fields of high responsibility and high reward in the finance industry.

Major employers of graduates include banks, insurance companies, superannuation providers, government regulatory bodies such as ASIC and APRA, and other major financial bodies.

### FULL TIME PROGRAM

#### YEAR 1

##### AUTUMN SEMESTER

Accounting for Business	6cp
Economics for Business	6cp
Introduction to Linear Dynamical Systems	6cp
Introduction to Statistics	6cp

##### SPRING SEMESTER

Accounting Transactions & Business Decisions	6cp
Fundamentals of Business Finance	6cp
Introduction to Analysis & Multivariable Calculus	6cp
Introduction to Quantitative Management	6cp

#### YEAR 2

##### AUTUMN SEMESTER

Computational Linear Algebra	6cp
Optimisation in Quantitative Management	6cp
Stochastic Models	6cp
The Financial System	6cp

##### SPRING SEMESTER

Investment Analysis	6cp
Macroeconomics: Theory and Applications	6cp
Regression Analysis	6cp
Differential Equations	6cp

#### YEAR 3

##### AUTUMN SEMESTER

Corporate Finance: Theory & Practice	6cp
Derivative Securities	6cp
Mathematical Statistics	6cp
Advanced Calculus	6cp

##### SPRING SEMESTER

Financial Time Series	6cp
Stochastic Processes	6cp

##### SELECT ONE OF:

Issues in Corporate Finance	6cp
Corporate Financial Analysis	6cp
International Financial Management	6cp

##### AND ONE OF:

Advanced Analysis	6cp
Nonlinear Methods in Quantitative Management	6cp

### HONOURS

The Bachelor of Mathematics & Finance (Honours) is available to eligible students with an additional year of full time study or equivalent part-time study.

You can combine this degree with Bachelor of Arts in International Studies

### COURSE CODES

UTS course code: C10155  
 UAC code: 609040  
 Duration: 3 years full time and 6 years part-time  
 Location: City campus  
 Assumed Knowledge: English and HSC Mathematics (preferably Mathematics extension 1)

### NEED TO KNOW MORE??

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# UTS: SCIENCE

Innovative, relevant and practical - a fusion of theory and practical studies

## Why UTS Science?

At UTS Science innovation is more than just an idea, it is applied in the development of courses, making science an experience. Our courses show how basic sciences like biology, physics, chemistry and mathematics connect with the quest for new vaccines, new gene therapy treatments, development of efficient photonics, more sensitive detection systems for environmental toxins and pathogens, and a host of exciting applications.

Students study science at UTS because they want courses with real world skills. Employers' value our graduates because they are work-ready, even before they graduate. Students can opt to take the Diploma in Scientific Practice in the second year of their degree, where they participate in industrial internship.

Studying Science at UTS also means having access to a new state-of-the-art laboratory facility in the city, the chance to network with a group of diverse researchers and the possibility to contribute to current research.

## What do our past students say?

SAM MORGANKELLOW, graduated in 2007

Bachelor of Science in Urban Ecology

"I chose this area of study because I was keen on learning about the environment. I was interested in biology and other components of the course relating to building and design. The lecturers were very helpful and the practical components of the course were enjoyable. I was able to choose two very different elective areas in second and third year and got to see different ecosystems on my field trips.

My final year project on CBD tree canopies with the City of Sydney was fantastic because I felt it had a real practical application. I'd like to work for local councils in an Environmental Officer role and eventually work in government on policy."

OSTA CHANGALANGSY, graduated in 2006

Bachelor of Medical Science

"My job (as a Clinical Trials assistant) requires me to be highly organised so that I can manage the clinical trials efficiently. My job involves dealing with investigators, pharmaceutical companies. I also ensure patient demographics are correct, order the correct test for each patient as well as to make sure that the results are reported to the investigators. I am also responsible for overseas specimens dispatch for further testing. The subjects I studied at UTS gave me the confidence on my very first day at work.

MARTIN BLABER, graduated in 2007

Bachelor of Science in Nanotechnology

"I was drawn to UTS because it was the pioneer in nanotechnology in Australia. Through the Institute for Nanoscale Technology I have access to two very large computing facilities. I would not have been able to do my work efficiently without access to these machines. I am also a big fan of the people here. They are very supportive and friendly. There is always someone willing to help.

## What do employers say about UTS Science, its students and internship program?

MR JAMES MCLEOD,

CEO, Dominion Electronics

"We have taken on four UTS Science interns over the past two years. They did some really great research in imbedded electronics. They compiled the raw data and presented a market analysis report. The interns from UTS Science were very practical and fitted straight into our organisation."

MR ALAN LIDDLE

CEO, Immune System Therapeutics Ltd

"At Immune System Therapeutics, we have interfaced with and worked with UTS Science students for over five years. Students from UTS have strong, readily useable technical skills that allow them to be productive from day one. They have sound knowledge base that enables them to learn and master new technologies in a timely fashion."

## What is the Diploma of Scientific Practice? Should you consider this option?

The UTS Diploma of Scientific Practice is yet another example of how studying science at UTS can give your career a kick start. Students have the option in the second or third year of their degree to participate in an industrial internship gaining practical experience and the opportunity to develop the skills, knowledge and attitudes needed to give them that extra edge in the marketplace. The possibility is there for employers to offer students employment as a result of these internships.