

INFORMATION SHEET  
Master of Business Data Science

# Master of Business Data Science

*Information is gold*

*There is growing demand for people, who have the skills to manage and analyse enormous amounts of data.*

**“Sexiest job of the 21st century”**

HARVARD BUSINESS REVIEW (OCT, 2012)

**“Data Scientists are highly sought after and highly paid”**

COMPUTER WORLD

There is an enormous and increasing amount of data that is collected. Examples include not just traditional data such as sales transactions, but location data, interactions between people on social networks, measurements of sleep patterns, medication being taken, state of health, and much much more.

A key challenge is then to make use of this wealth of data. How can we manage this data, and analyse it to exploit useful information that can guide decision making?

Data scientists manage and analyse data using a range of techniques including statistics, data mining, machine learning, pattern recognition, visualisation, and high performance computing.

POSTGRADUATE



YOUR PLACE IN THE WORLD

0800 80 80 98  
[www.otago.ac.nz](http://www.otago.ac.nz)  
txt 866  
[university@otago.ac.nz](mailto:university@otago.ac.nz)

## Master of Business Data Science (MBusDataSc)\*

The MBusDataSc primary focus is to equip you to become a practitioner, allowing you to meet the needs of industry, and solve the (data) problems of the world. However, there will also be an alternative path that will focus on preparing students for research in the area (e.g. going on to do a PhD).

The degree is inherently multidisciplinary, featuring Information Science and Marketing, which gives the degree a strong business focus, as well as contributions from Computer Science and from Statistics.

Once you have completed the MBusDataSc you will have developed an advanced knowledge of data science. You will understand how data analysis can be used in business, including being able to identify opportunities to use data, be aware of ethical and privacy issues and possible mitigations, and be able to select appropriate means of presenting the results of analysis. You will be able to select and apply techniques to manage and analyse large collections of data.

### Background Required

In order to enrol in the MBusDataSc you would normally require a B+ average (at 300-Level) in an appropriate undergraduate degree. Students need to be able to program, have a basic knowledge of databases, and should also have some knowledge of statistics.

In considering your undergraduate qualification, regard will be given to the detail of the course of study followed to gain the qualification, as well as your performance in the programme.

If your undergraduate degree is not from the University of Otago you will need to provide a verified copy of your academic transcript.

### Degree Structure

The MBusDataSc consists of seven taught papers together with an applied project or research project.

You must complete:

BSNS 401 The Environment of Business & Economics

COSC 430 Advanced Database Topics

INFO 408 Management of large scale data

INFO 411 Machine Learning and Data Mining

INFO 420 Statistical Techniques for Data Science

INFO 424 Adaptive Business Intelligence

MART 448 Advanced Business Analytics

Plus one of the following project papers

BSNS 501 Applied Project

or

BSNS 580 Research Project (for students who may wish to progress to PhD study)

### Teaching Style & Methods

You will be taught using a mixture of lectures and in-class discussions, seminars, lab class work, tutorials, and group work.

While completing the MBusDataSc you may be assessed in a variety of ways such as by lab assignments, essays, individual or group presentations, or a final exam.

### Career Opportunities

Universities around the world can hardly produce data scientists fast enough. To meet demand the United States alone will need to increase the number of graduates with skill in handling large amounts of data by as much as 60 percent, according to a report by McKinsey Global Institute. There will be almost half a million jobs in five years, and a shortage of up to 190,000 qualified data scientists, plus a need for 1.5 million executives and support staff who have an understanding of data.

The average salary in the USA for a qualified Data Scientist is \$90,000, and more than \$100,000 for those with prior experience.

As a graduate of this degree you will have a combination of skills in data science, analysis and management that will equip you to comprehend, process and manage data effectively and efficiently. By understanding this data you'll add value to the business sector.

**\*subject to CUAP approval**

For questions about  
Master of Business Data Science  
[www.otago.ac.nz/business/study/  
postgraduate/otago052118.html](http://www.otago.ac.nz/business/study/postgraduate/otago052118.html)

