Be true to you
Profile

“One of the reasons I am fascinated by this area of science is because microbes are just so interesting. On one hand, they can cause serious and life-threatening illnesses, and on the other hand, many can be used to improve life and be a source of energy.

“Some of the benefits of studying this program have been that I have learned to work effectively with others and think outside the box.

“At RMIT I had a wonderful experience where I worked in a microbiology lab for three months as part of the work-integrated learning (WIL) program in my final year. Here I was able to undertake hands-on training and complete the day-to-day duties of a microbiologist in a diagnostic lab.”

Benazir Khoshbooei (cover)
Master of Biotechnology (Clinical Microbiology)
Facilities

Modern laboratories, exposure to real-life field conditions and access to a range of sophisticated equipment enable advanced research work and skills training aligned with best practice in industry and in research.

RMIT has the latest facilities on its City and Bundoora campuses including:

- vibrational spectroscopy facility
- x-ray facility
- microscopy and microanalysis facility
- purpose-built $32 million biosciences building at Bundoora campus
- a facility for small animals
- aquatic toxicology and aquaculture facilities
- digital learning laboratories
RMIT University has world-leading strengths across a wide variety of areas in applied and theoretical research.

**Science and Medical Sciences Research at RMIT**

RMIT’s researchers are among the best in the world. By completing a research degree at RMIT, you will hone your knowledge and skills under guidance from leaders in your field.

Research at RMIT aims to address issues of global importance and have an impact at local, national and international levels. RMIT adopts a collaborative approach to identify innovative, timely and ground-breaking solutions that benefit society.

RMIT’s research strengths and expertise cover a broad range of areas, including:

**Medical Sciences**
- biochemistry
- haematology
- pathology
- pharmacology
- toxicology

**Science**
- advanced technologies
- biotechnology and microbiology
- environmental sustainability
- food science and nutrition
- molecular and analytical sciences
- molecular biology
- nanoscience

An honours, masters or PhD by research program consists primarily of a thesis project conducted under supervision of and in consultation with our academic staff. You will also undertake a small coursework component to equip you with the necessary analytical, technical and communication skills to succeed in your research project.

**Research Programs**

**Honours**

An honours program combines coursework and research elements across two semesters full-time, culminating in the presentation of a thesis. You will work under guidance of your project supervisor, conducting experiments, investigations and research using a range of instrumentation, computing resources and materials, according to the nature of your project. If you are working on a collaborative research project, some of this work may be carried out in external facilities.

<table>
<thead>
<tr>
<th>Program Code</th>
<th>Specialist Discipline</th>
<th>Further Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>BH010</td>
<td>Bachelor of Science (Mathematics) (Honours)</td>
<td><a href="http://www.mit.edu.au/programs/bh010">www.mit.edu.au/programs/bh010</a></td>
</tr>
</tbody>
</table>

You can find further details about individual programs by typing in the specific URL listed above.

For more information about College of Science, Engineering and Health research centres, affiliations and research expertise visit [www.rmit.edu.au/seh](http://www.rmit.edu.au/seh).

To find out about research programs, supervision and entry requirements visit [www.rmit.edu.au/graduateresearch](http://www.rmit.edu.au/graduateresearch).


**To Start Your Career in Research:**

1. Complete your bachelor degree with high grades.
2. Complete an honours degree or a masters degree by research.
3. If you excel in your honours degree or masters degree by research, you can continue your research in a doctorate (PhD). This involves four years of research under the supervision of a senior researcher.

For further information about entry requirements and the application process for postgraduate by research programs, please refer to the How to Apply section of this brochure.

A postgraduate research degree can pave the way to a career in research, or demonstrate your problem-solving, work and technical skills to prospective employers. With a research degree, you will stand out from the crowd.
Masters and PhD by Research

You will undertake a research project under the guidance of your supervisor, culminating in the submission of a thesis or project. A masters by research is completed over four semesters full-time, while a PhD is completed over eight semesters full-time.

RMIT’s modern laboratories, sophisticated industry-standard equipment and collaborative environments will enable you to deliver practical solutions to real-world challenges. You will be connected with RMIT’s research institutes, international research institutions, and partner organisations such as CSIRO.

<table>
<thead>
<tr>
<th>Program Code</th>
<th>Specialist Discipline</th>
<th>Further Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR223</td>
<td>Master of Science (Geospatial Sciences)</td>
<td><a href="http://www.rmit.edu.au/programs/mr223">www.rmit.edu.au/programs/mr223</a></td>
</tr>
<tr>
<td>DR223</td>
<td>PhD (Geospatial Sciences)</td>
<td><a href="http://www.rmit.edu.au/programs/dr223">www.rmit.edu.au/programs/dr223</a></td>
</tr>
<tr>
<td>MR222</td>
<td>Master of Science (Mathematical Sciences)</td>
<td><a href="http://www.rmit.edu.au/programs/mr222">www.rmit.edu.au/programs/mr222</a></td>
</tr>
<tr>
<td>DR222</td>
<td>PhD (Mathematical Sciences)</td>
<td><a href="http://www.rmit.edu.au/programs/dr222">www.rmit.edu.au/programs/dr222</a></td>
</tr>
<tr>
<td>MR224</td>
<td>Master of Science (Complementary Medicine)</td>
<td><a href="http://www.rmit.edu.au/programs/mr224">www.rmit.edu.au/programs/mr224</a></td>
</tr>
<tr>
<td>DR224</td>
<td>PhD (Complementary Medicine)</td>
<td><a href="http://www.rmit.edu.au/programs/dr224">www.rmit.edu.au/programs/dr224</a></td>
</tr>
<tr>
<td>MR225</td>
<td>Master of Science (Nursing)</td>
<td><a href="http://www.rmit.edu.au/programs/mr225">www.rmit.edu.au/programs/mr225</a></td>
</tr>
<tr>
<td>DR225</td>
<td>PhD (Nursing)</td>
<td><a href="http://www.rmit.edu.au/programs/dr225">www.rmit.edu.au/programs/dr225</a></td>
</tr>
<tr>
<td>DR226</td>
<td>PhD (Psychology)</td>
<td><a href="http://www.rmit.edu.au/programs/dr226">www.rmit.edu.au/programs/dr226</a></td>
</tr>
<tr>
<td>MR227</td>
<td>Master of Science (Biomedical Science)</td>
<td><a href="http://www.rmit.edu.au/programs/mr227">www.rmit.edu.au/programs/mr227</a></td>
</tr>
<tr>
<td>DR227</td>
<td>PhD (Biomedical Science)</td>
<td><a href="http://www.rmit.edu.au/programs/dr227">www.rmit.edu.au/programs/dr227</a></td>
</tr>
<tr>
<td>MR228</td>
<td>Master of Science (Medical Radiations Science)</td>
<td><a href="http://www.rmit.edu.au/programs/mr228">www.rmit.edu.au/programs/mr228</a></td>
</tr>
<tr>
<td>DR228</td>
<td>PhD (Medical Radiations Science)</td>
<td><a href="http://www.rmit.edu.au/programs/dr228">www.rmit.edu.au/programs/dr228</a></td>
</tr>
<tr>
<td>MR231</td>
<td>Master of Science (Applied Biology and Biotechnology)</td>
<td><a href="http://www.rmit.edu.au/programs/mr231">www.rmit.edu.au/programs/mr231</a></td>
</tr>
<tr>
<td>DR231</td>
<td>PhD (Applied Biology and Biotechnology)</td>
<td><a href="http://www.rmit.edu.au/programs/dr231">www.rmit.edu.au/programs/dr231</a></td>
</tr>
<tr>
<td>DR229</td>
<td>PhD (Applied Chemistry)</td>
<td><a href="http://www.rmit.edu.au/programs/dr229">www.rmit.edu.au/programs/dr229</a></td>
</tr>
<tr>
<td>MR232</td>
<td>Master of Science (Food Science)</td>
<td><a href="http://www.rmit.edu.au/programs/mr232">www.rmit.edu.au/programs/mr232</a></td>
</tr>
<tr>
<td>DR232</td>
<td>PhD (Food Science)</td>
<td><a href="http://www.rmit.edu.au/programs/dr232">www.rmit.edu.au/programs/dr232</a></td>
</tr>
<tr>
<td>MR234</td>
<td>Master of Science (Laboratory and Clinical Sciences)</td>
<td><a href="http://www.rmit.edu.au/programs/mr234">www.rmit.edu.au/programs/mr234</a></td>
</tr>
<tr>
<td>DR234</td>
<td>PhD (Laboratory and Clinical Sciences)</td>
<td><a href="http://www.rmit.edu.au/programs/dr234">www.rmit.edu.au/programs/dr234</a></td>
</tr>
</tbody>
</table>

You can find further details about individual programs by typing in the specific URL listed above.

Profile

“I hope to improve the quality and performance of scientific instruments by designing and fabricating new nanostructured optical coatings that are high quality but more affordable to produce.

“The scientific instruments in question, namely spectrophotometers, require complex high-quality components, which can be very expensive to manufacture and may employ production methods that produce harmful by-products. This type of chemical analysis is called spectroscopy and focuses on how different elements or compounds interact with light.

“I’m inspired by how we can use advanced techniques – cheaply and safely – to produce materials suitable for building complex components tailored for specific applications.”

Billy Murdoch
PhD (Applied Physics)
Master of Analytics

Program Code  Campus
MC242  City campus

Duration
2 years full-time or 4 years part-time.

2016 Tuition Fee
Full-Fee Places
$20,160 per year full-time.
Please refer to fees information on page 22.

How to Apply
Apply directly to RMIT University at
Please refer to How to Apply on page 23.

Further Information
Dr Melih Ozlen
Program Leader
Tel. +61 3 9925 3007
Email: melih.ozlen@rmit.edu.au
Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260

URL
www.rmit.edu.au/programs/mc242

With exponential growth in available data, the analytics discipline has emerged as a key field requiring the skilled analyst. This program provides you with complementary skills in analytics, tapping into studies in statistics, operations research, computer science, information technologies, business, economics, finance, and marketing.

The Master of Analytics prepares you for statistical analysis in the business world. The flexibility of the program allows you to choose from a diverse range of electives combined with a core of statistics and operations research that will enable you to specialise in the areas that will assist you in the future.

A strong focus of the program is consulting and work-integrated learning. This assists you through exposure to industry projects and problems that provide you with hands-on examples for the development of your analytic capabilities. With data-driven decisions now a fundamental part of business operations, this program provides you with the platform to be a business-ready problem solver.

Learning and Teaching
The Master of Analytics is offered through a flexible combination of lectures, tutorials and computer laboratory classes. There are also opportunities for you to participate in teamwork on projects and in consulting activities.

Program Structure
You’ll complete core studies in statistics and operations research and can choose from a diverse range of electives.

The Master consists of 196 credit points. This incorporates the Graduate Diploma (96 credit points). The following is an example of courses offered:

- Advanced Programming
- Algorithms and Analysis
- Analysis of Categorical Data
- Analysis of Large Data Sets
- Big Data Infrastructures
- Big Data Processing
- Business Intelligence
- Business-to-Business Marketing
- Consumer Behaviour
- Corporate Finance
- Data Mining
- Database Concepts
- Database Systems
- Decision Support Systems
- E-Business Models and Issues
- Econometric Techniques
- Economic Analysis for Business
- Financial Decision Making
- Financial Econometrics
- Forecasting
- Game Theory and Its Applications
- GIS Fundamentals
- Globalisation and Business IT
- Industrial Research Methods
- Industrial Research Project
- Information Systems Security
- Information Theory for Secure Communications
- Interactive Marketing
- Introduction to Statistics
- Marketing Management
- Methods and Models of Operations Research
- Minor Thesis
- Money Markets and Fixed Income Securities
- Multivariate Analysis Techniques
- Programming Fundamentals
- Programming Techniques
- Project Management
- Quantitative Methods in Finance
- Questionnaire and Research Design
- Regression Analysis
- Risk Management and Financial Engineering
- Scripting Language Programming
- Services Marketing
- Sports Analytics
- Statistical Inference
- Statistics of Quality Control and Performance Analysis
- Supply Chain Principles
- Systems Simulation
- Time Series Analysis

Further, international qualifications are assessed according to the Australian Qualifications Framework (AQF).

Profile
"I’ve always been good at mathematics, and so analytics was a perfect fit for me. Completing my bachelor degree at RMIT exposed me to projects that demonstrated the potential of analytics in a range of areas.

"Postgraduate study is very involved and challenging, but it provides a great launching pad to your career. During my studies, I’ve learned to analyse problems critically, systematically and with precision, making me more efficient in problem-solving in both my professional and personal life.”

Muriithi Gichuru
Master of Analytics

Industry Connections
This program focuses on consulting and work-integrated learning. You will do industry projects and develop your analytical capabilities by solving problems hands-on.

Career
Graduates are employed in analytics positions in finance, banking, consulting, business, marketing and research institutions.

Professional Recognition
Graduates are eligible to become members of the following organisations:

- Statistical Society of Australia Inc. (SSAI)
- Australian Society for Operations Research (ASOR)
- American Statistical Association (ASA)
- Institute for Operations Research and the Management Sciences (INFORMS).

Entry Requirements
- A bachelor degree in any discipline with a Grade Point Average of at least 2.00 out of 4.00; or
- At least 10 years work experience in analytics, statistics, operations research or a relevant discipline.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).
I chose to study a postgraduate program in analytics majoring in statistics and operations research because I wanted to enhance my analytical skills in the workplace. RMIT is a modern university and the program offers advanced software and workplace learning to help you learn more effectively.

As part of SLAMs (Student Learning Advisory Mentors), I’ve had the pleasure of assisting students who might be struggling with their studies and guiding them to eventually become independent learners.

When I graduate, I would like to become a financial analyst, business analyst or statistician in a corporate environment.

Joyce Lim
Master of Analytics
The Master of Biotechnology is a general degree with the option to also follow one of two specialty majors in Clinical Microbiology and Food Science.

This program emphasises the application of new knowledge and technologies to solving practical problems.

In addition to the coursework component, the Master of Biotechnology includes one optional period of work experience or a research project. You may choose to follow the general stream or one of the two majors below:

**Master of Biotechnology (Clinical Microbiology)**

This program focuses on microbes that cause infectious disease, and how to identify, diagnose and treat the microbes and the diseases they cause. Typically, students will find employment in hospital and private diagnostic labs, research labs, or biotechnology companies.

**Master of Biotechnology (Food Science)**

Many aspects of food science are covered in this degree, including food composition, food safety, and product development. A wide range of employment opportunities in the food industry are available for graduates.

**Learning and Teaching**

Courses are presented using a variety of learning methods including formal lectures, seminars, workshops, presentations and group discussions, review of current literature and practical experience.

**Program Structure**

The Master consists of 192 credit points. Depending on your chosen major, the following is an example of courses offered:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Food Processing Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Bioinformatics</td>
<td>12</td>
</tr>
<tr>
<td>Bioinformatics Research Project</td>
<td>24</td>
</tr>
<tr>
<td>Biostatistics</td>
<td>12</td>
</tr>
<tr>
<td>Confectionary and Lipid Technology</td>
<td>12</td>
</tr>
<tr>
<td>Dairy Science and Technology</td>
<td>12</td>
</tr>
<tr>
<td>Ecotoxicology</td>
<td>12</td>
</tr>
<tr>
<td>Environmental Biotechnology</td>
<td>12</td>
</tr>
<tr>
<td>Environmental Microbiology</td>
<td>24</td>
</tr>
<tr>
<td>Food Chemistry</td>
<td>12</td>
</tr>
<tr>
<td>Food Processing Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Food Quality Assurance</td>
<td>12</td>
</tr>
<tr>
<td>Fruit, Vegetable and Beverage Technology</td>
<td>12</td>
</tr>
<tr>
<td>Gene Technologies 1</td>
<td>12</td>
</tr>
<tr>
<td>Grain Technology</td>
<td>12</td>
</tr>
<tr>
<td>Immunology</td>
<td>12</td>
</tr>
<tr>
<td>Industrial Micobiology</td>
<td>12</td>
</tr>
<tr>
<td>Medical Microbiology 1</td>
<td>12</td>
</tr>
<tr>
<td>Medical Microbiology 2</td>
<td>12</td>
</tr>
<tr>
<td>Parasitology</td>
<td>12</td>
</tr>
<tr>
<td>Product Development</td>
<td>12</td>
</tr>
<tr>
<td>Protein Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 1</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 2</td>
<td>24</td>
</tr>
<tr>
<td>Rheology and Food Biophysics</td>
<td>12</td>
</tr>
<tr>
<td>Scientific Skills and Tools</td>
<td>12</td>
</tr>
<tr>
<td>Sensory Evaluation of Food</td>
<td>12</td>
</tr>
<tr>
<td>Viruses and Infections</td>
<td>12</td>
</tr>
<tr>
<td>Work Experience Practicum 2</td>
<td>36</td>
</tr>
</tbody>
</table>

Note: Not all courses are offered every year.

**Industry Connections**

All students will undertake a bioinformatics research project in which real-world data is analysed. High-achieving students can undertake a further research option or a period of work experience in year two of the program. All specialisations within this program are validated and advised by an industry panel comprising practising professionals who meet regularly to review the contents of each discipline.
Career
Graduates are employed in industries such as biotechnology companies, medical research institutes, universities, government bodies and hospitals as research staff or senior scientists.

Professional Recognition
As a graduate, you can apply for membership of one or more of the following professional societies, depending on which courses you’ve studied:

- American Society for Microbiology
- Asian Fisheries Society
- Australasian Society for Ecotoxicology
- Australian Institute of Biology
- Australian Institute of Food Science and Technology
- Australian Society for Biochemistry and Molecular Biology
- Australian Society for Limnology
- Australian Society for Microbiology
- British Mycological Society
- Society of Environmental Toxicology and Chemistry
- World Aquaculture Society
- Zoological Society of London

Pathways
Relevant work experience at an appropriate level and duration may be recognised as an equivalent to one full-time semester or one part-time year. Applications for recognition of work experience are assessed on an individual basis.

Entry Requirements
An Australian bachelor degree with a Grade Point Average of at least 2.0 out of 4.0 in biological sciences, food science/technology, biotechnology, medicine, veterinary science, dentistry or equivalent; and successful completion of a chemistry, biochemistry or microbiology course in a bachelor degree or equivalent. International qualifications are assessed according to the Australian Qualifications Framework (AQF).

Applicants are advised to check www.rmit.edu.au/programs/mc111 for the relevant entry requirements for their chosen stream.

Profile
“Growing up within a farming community, I have always been aware that food security is an issue of growing concern, both nationally and internationally.

“The discipline of plant biotechnology provides me with an understanding of the biology of plants and the technologies that will eventually lead me into the research and development of innovative biotechnological solutions to food-security issues.

“When I was looking for a degree, I found that RMIT had a well-established biotechnology program with many plant biotechnology projects currently underway. I was impressed by the many learning and professional development experiences offered to students.

“My skill set now includes a strong foundation in microbiological techniques along with the ability to use a variety of gene technologies. I also have practical experience in the generation and molecular characterisation of transgenic plants.”

Tahnee Manning
Bachelor of Science (Applied Sciences) (Honours)

Profile
“RMIT has great education resources and experienced food technology lecturers with strong industry connections.

“The highlight of my time at RMIT was when I was awarded the School of Applied Sciences’ Biotechnology Postgraduate Award for International Students. This award is based on academic achievement and is a real honour.

“During my bachelor degree studies I undertook work experience in a brewery. This taught me the industrial applications of the theory I learnt during classes and demonstrated the difference between experiments in laboratories and large-scale production in factories.

“My studies have taught me skills in analysis, teamwork, critical thinking, work planning and information searching. My goal is to use these skills as a product developer for a food company and one day start a company of my own.”

Hongkai Xu
Master of Biotechnology
Master of Environmental Science and Technology

A Master of Environmental Science and Technology will prepare you for managing environmental projects. It will also provide you with a broad understanding of multiple disciplines relevant to environmental science, and the opportunity to study specific areas in-depth. The knowledge and skills you gain will be incorporated into an industry-relevant research project.

As a future manager in environmental science, you will be expected to design and manage projects in an ethical fashion and communicate with a wide range of audiences. Development of these attributes will be an integral part of your progression through the program.

Learning and Teaching
The main modes of delivery will be through lectures, online delivery, tutorials and some laboratory work.

You will be expected to contribute to tutorial discussions. There will be some field work in intensive mode.

Program Structure
The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points). In year one you will undertake compulsory courses that will provide you with the skills required to operate as a professional in the environmental sector, manage projects and carry out research. You will also take classes and workshops in the fundamental sciences and technology, and be exposed to new and developing sustainable technologies and environmental protection methods. In year two you will undertake a research project in an area that is of specific interest to you.

In addition, you will study a set of science and technology electives of your choice.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Management – EIA and EMS</td>
<td>12</td>
</tr>
<tr>
<td>Fundamentals of Environmental Science</td>
<td>12</td>
</tr>
<tr>
<td>Professional Environmental Scientist</td>
<td>12</td>
</tr>
<tr>
<td>Project Management</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 1</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 2</td>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecotoxicology</td>
<td>12</td>
</tr>
<tr>
<td>Energy and Earth’s Environment</td>
<td>12</td>
</tr>
<tr>
<td>Environmental Biotechnology</td>
<td>24</td>
</tr>
<tr>
<td>Environmental Chemistry 1A Fundamentals</td>
<td>12</td>
</tr>
<tr>
<td>GIS Applications</td>
<td>12</td>
</tr>
<tr>
<td>GIS Fundamentals</td>
<td>12</td>
</tr>
<tr>
<td>GIS Principles</td>
<td>12</td>
</tr>
<tr>
<td>Introduction to Statistics</td>
<td>12</td>
</tr>
<tr>
<td>Marine Biology</td>
<td>12</td>
</tr>
<tr>
<td>Photovoltaic Systems</td>
<td>12</td>
</tr>
<tr>
<td>Principles and Practice of Work Health and Safety</td>
<td>12</td>
</tr>
<tr>
<td>Remote Sensing</td>
<td>12</td>
</tr>
<tr>
<td>Satellite Positioning</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Energy Fundamentals</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Hydrogen Systems</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: Not all courses are offered every year.
Industry Connections
A number of industry partners will participate in the delivery of classroom activities and provide opportunities for research projects. Their classroom activities will include the development of project proposals, working with clients and risk management. Opportunities for projects will come from industries such as landfill operations, water and catchment management, and contaminated land management. There will also be opportunities to work with government agencies such as the EPA Victoria, CSIRO, Department of Sustainability and Environment, and Department of Primary Industries.

Career
Employment opportunities for graduates from a range of disciplines will be significantly enhanced by the addition of a postgraduate qualification in environmental science and technology. There is a shortage of qualified environmental science professionals to provide high-level advice to Australian workplaces, which is reflected in a recent and broad remuneration survey of environmental positions in Australia (SafeSearch HSE 2011–2012 Remuneration Survey). This program is designed to give you a competitive edge.

Professional Recognition
The Master of Environmental Science and Technology will satisfy the educational component of the requirements to become a certified environmental practitioner.

Entry Requirements
A bachelor degree or masters by coursework degree in science or engineering with a Grade Point Average of at least 2.0 out of 4.0. International qualifications are assessed according to the Australian Qualifications Framework (AQF).

Profile
“RMIT is a prestigious university with a good international reputation that provides the right facilities and support to help students reach their potential.

“Postgraduate study takes you one step further not only academically, but personally and professionally too. In India, many people dream of completing postgraduate study abroad because of the insights and experience they will receive; to improve their knowledge and to build their career.

“In historically and culturally diverse India, there are 1.3 billion people using the environment. The motivation for my study is to educate people about the effects of pollution. However, one man alone cannot make the necessary changes, so I have joined SPIRIT (Student Promoted Innovative Research in Technology) where I’ve undertaken over 20 environment-related projects, and have worked for the GUIDE Foundation to assist them in training many of their students on environmental issues such as electronic waste.”

Anurag Sarika
Master of Environmental Science and Technology
This program is designed for professionals who want to build on their geospatial information and technology skills. You can take specialist elective streams in geographic information science, remote sensing, satellite positioning, multimedia cartography, environmental studies and computer science.

RMIT also offers background courses in software techniques and applications, computer mapping and land development.

To support these technological skills, you will study environmental management, natural resource management and geography.

This Master of Applied Science (Geospatial Information) suits individuals who have achieved good results in their bachelor degrees and/or have worked in a related industry for three or more years.

### Program Structure

The Master consists of 144 credit points. This incorporates the Graduate Diploma (96 credit points). You must do coursework studies at both graduate diploma and masters level, and complete a minor dissertation as part of the Master qualification.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Year One</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS Applications</td>
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<tr>
<td>GIS Fundamentals</td>
</tr>
<tr>
<td>GIS Principles</td>
</tr>
<tr>
<td>Human Geography</td>
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<tr>
<td>Multimedia Cartography</td>
</tr>
<tr>
<td>Physical Geography</td>
</tr>
<tr>
<td>Remote Sensing</td>
</tr>
<tr>
<td>Research Methods</td>
</tr>
<tr>
<td>Resource Management 1</td>
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<tr>
<td>Resource Management 2</td>
</tr>
<tr>
<td>Satellite Positioning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissertation</td>
</tr>
<tr>
<td>Dissertation Part A (Preparation)</td>
</tr>
<tr>
<td>Dissertation Part B (Implementation)</td>
</tr>
</tbody>
</table>

### Industry Connections

The School of Mathematical and Geospatial Sciences has extensive links with industry across all streams of this program, including cartography, spatial sciences and surveying.

### Career

Graduates are professionally qualified to actively capture, store, manipulate, analyse and present geospatial information.

Graduates are suitable for roles including:

- agricultural and environmental scientists
- cartographers
- computer scientists
- engineers
- foresters
- geographers and planners (all levels of land data management)
- geologists
- surveyors

### Entry Requirements

An Australian bachelor degree majoring in applied sciences, engineering, land information, environmental science, surveying, geography, geospatial science, geomatics or equivalent.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).
I chose RMIT because it is well known for its practical approach to learning. I have really appreciated the broad nature of my program and, more specifically, I’ve developed an in-depth understanding of geospatial management and technology.

A major highlight of my studies was completing two units in the United States as part of an RMIT student exchange. This amazing opportunity enabled me to make many new friends and experience life in the Big Apple. I’ve worked for BHP Billiton as a geologist and have also completed a vacation role with Shell Australia in Perth.

Ideally, I would like to join a major oil and gas company as a geologist and use my skills to benefit the developing world.

Daniel Shek
Master of Applied Science (Geospatial Information)
Master of Laboratory Medicine

Program Code  Campus
MC158        Bundoora campus
Some courses may be held on City campus

Duration
2 years full-time or 4 years part-time.

2016 Tuition Fee
Full-Fee Places $28,800 per year full-time.
Please refer to Fees Explained on page 22.

How to Apply
Apply directly to RMIT University at www.rmit.edu.au/programs/apply/direct.
Please refer to How to Apply on page 23.

Further Information
Dr Cindy O’Malley
School of Medical Sciences
Tel. +61 3 9925 7075
Email: cindy.omalley@rmit.edu.au
Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260

URL
www.rmit.edu.au/programs/mc158

This program suits graduates from general science or biomedical science degrees with a biological science focus. It will allow you to specialise in two clinical pathology discipline streams from the following options:

- Clinical Biochemistry
- Cytopathology
- Haematology
- Histopathology
- Medical Microbiology
- Transfusion and Transplantation Science

On completion, you'll have high-level skills in analysis and knowledge integration relevant to your area of specialisation.

Learning and Teaching
RMIT offers a variety of learning and teaching approaches including lectures. Ongoing assessment throughout the semester includes examinations, essays, laboratory reports, oral classes, presentations, group projects, research projects, laboratory projects and practical assignments.

Program Structure
The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points).

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Clinical Biochemistry</td>
<td>24</td>
</tr>
<tr>
<td>Advanced Cytopathology</td>
<td>24</td>
</tr>
<tr>
<td>Advanced Haematology</td>
<td>24</td>
</tr>
<tr>
<td>Advanced Histopathology</td>
<td>24</td>
</tr>
<tr>
<td>Advanced Medical Informatics and Laboratory Medicine</td>
<td>12</td>
</tr>
<tr>
<td>Advanced Transfusion and Transplantation Science</td>
<td>24</td>
</tr>
<tr>
<td>Applied Biomechanical Methods</td>
<td>12</td>
</tr>
<tr>
<td>Biomolecules and Cellular Regulation</td>
<td>12</td>
</tr>
<tr>
<td>Biostatistics</td>
<td>12</td>
</tr>
<tr>
<td>Clinical Biochemistry 1</td>
<td>12</td>
</tr>
<tr>
<td>Gene Technologies 1</td>
<td>12</td>
</tr>
<tr>
<td>Haematology and Transfusion Science 1</td>
<td>12</td>
</tr>
<tr>
<td>Histopathology and Cytopathology 1</td>
<td>12</td>
</tr>
<tr>
<td>Laboratory Medicine Project</td>
<td>36</td>
</tr>
<tr>
<td>Medical Laboratory Quality Systems and Accreditation</td>
<td>12</td>
</tr>
<tr>
<td>Medical Microbiology and Immunology</td>
<td>12</td>
</tr>
<tr>
<td>Medical Microbiology 1</td>
<td>12</td>
</tr>
<tr>
<td>Medical Microbiology 2</td>
<td>12</td>
</tr>
<tr>
<td>Molecular Genetics and Diagnostics</td>
<td>12</td>
</tr>
<tr>
<td>Parasites</td>
<td>12</td>
</tr>
<tr>
<td>Point of Care Patient Testing</td>
<td>12</td>
</tr>
<tr>
<td>Professional Practice in Laboratory Medicine</td>
<td>48</td>
</tr>
<tr>
<td>Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Systemic Pathology</td>
<td>12</td>
</tr>
<tr>
<td>Viruses and Infections</td>
<td>12</td>
</tr>
</tbody>
</table>
Industry Connections

During the final semester of study, eligible students may undertake one full semester of supervised practice in either a medical research laboratory or a diagnostic pathology laboratory, subject to placement opportunities.

Career

Graduates are employed as medical scientists in the field of diagnostic pathology, academia or in medical research.

Medical scientists work in hospital laboratories, private pathology laboratories, state health laboratories and universities. In larger hospitals and private laboratories, medical scientists usually specialise in one of the professional disciplines.

The ageing of the Australian population is expected to drive strong demand for pathology services and medical scientists. There is also a shortage of medical scientists in a number of countries worldwide.

Professional Recognition

The Master of Laboratory Medicine is accredited by the Australian Institute of Medical Scientists (AIMS) and the Institute of Biomedical Science, UK (IBMS). These professional bodies represent biomedical pathology scientists in Australia and in the UK.

The School of Medical Sciences has extensive links with industry through their program advisory committees (PACs), and through research projects and consulting. Employers and industry professionals are members of these advisory committees, and have contributed to both the initial development and ongoing improvement of this program. Their involvement ensures that the program remains relevant to your needs as a graduate and to the needs of graduate employers.

Many of the teaching staff within the program are (or have been) practising industry professionals with extensive industry experience and contact networks. This experience, when integrated into learning and teaching practice, enriches your learning environment.

Entry Requirements

— An Australian bachelor degree in a cognate discipline (laboratory medicine, biomedical or biological sciences, or medicine) with a minimum Grade Point Average of 2.0 out of 4.0; or
— An Australian bachelor degree in a cognate discipline with at least five years of relevant work experience in diagnostic pathology.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

Profile

“When I graduated from my Bachelor of Science I realised that a postgraduate qualification would improve my job prospects. I’d been interested in laboratory medicine ever since I was an undergraduate, so I knew that studying this speciality would take my career further.

“I chose RMIT because it has the best track record for producing graduates who can move fluidly from university into the workforce. I knew that placements were part of the program and felt that securing a job was not far off from that.

“A highlight of my studies so far has been learning about and understanding fields in parallel to my own – like histopathology.

“Having previously worked extensively in microbiology, I find it fascinating to learn how the body works at a microscopic level.

“Studying the masters has helped me to develop strong skills in time management, precision, accuracy, patience and a greater capacity to think logically and analytically.”

Christina Lobo
Master of Laboratory Medicine
The Master of Medical Physics is designed for physical scientists seeking specialist knowledge and skills in the field of medical physics. Medical physicists are employed clinically in the fields of radiotherapy, medical imaging, nuclear medicine, and in the associated research and regulatory activities of non-hospital institutions. You will develop the skills to evaluate the performance of medical equipment, analyse outputs and diagnose problems. With initiative and a high degree of independence, you will be instrumental in the evaluation and implementation of new technologies and in the translation of research into professional practice.

You will become an important advisor to a team of professionals including oncologists, radiologists, therapists, technologists and biomedical engineers. Through the completion of a research project in collaboration with an external institution, you will apply your specialised expertise to design and conduct research that addresses practical challenges facing scientists in this field.

Learning and Teaching
Your learning experiences will contain a broad mix of study modes including lectures, seminars, workshops and weekly classes using face-to-face, online and other flexible delivery mechanisms.

Program Structure
You will study courses that provide understanding of advanced physics, such as radiation, electromagnetics, quantum physics, optics, photonics and nuclear physics as well as radiobiology and basic human biology, structure and function. You will also study the technical aspects of medical physics in courses concerning medical imaging, radiotherapy and radiation transport modelling. You will apply your knowledge in courses related to radiation physics, radiation protection, and radiotherapy dosimetry. You will also undertake a research project relevant to an industry or clinical setting, assisted by an industry consultant as a co-supervisor.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Medical Imaging</td>
<td>12</td>
</tr>
<tr>
<td>Human Structure and Function</td>
<td>12</td>
</tr>
<tr>
<td>Introduction to the Principles and Practice of</td>
<td>12</td>
</tr>
<tr>
<td>Radiotherapy Treatment Planning</td>
<td></td>
</tr>
<tr>
<td>Medical Imaging Physics</td>
<td>12</td>
</tr>
<tr>
<td>Radiation Physics and Radiation Protection</td>
<td>12</td>
</tr>
<tr>
<td>Radiobiology for Medical Physicists</td>
<td>12</td>
</tr>
<tr>
<td>Radiotherapy Physics and Modeling</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 1</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 2</td>
<td>12</td>
</tr>
</tbody>
</table>

Industry Connections
Medical Physics programs at RMIT University are closely linked with all major hospitals in Melbourne through teaching and research collaborations. Courses taught in this program have been developed in consultation with practising professionals in the fields of radiotherapy oncology, medical imaging, nuclear medicine and radiation protection. Research projects are conducted with a wide range of collaborating institutions that are also the primary employers of graduates from these programs.

Career
People with postgraduate training in medical physics are highly sought. Australia is experiencing an expansion of radiation oncology and medical imaging facilities and service. Growth includes construction of new treatment centres, particularly in regional centres. There is currently a national workforce shortage, which has been forecast to grow significantly in the next two decades. A postgraduate qualification such as this is mandatory to become a certified practising medical physicist in Australia.

Professional Recognition
The Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM) oversees a professional accreditation program that recognises and certifies experienced medical physicists. To be certified as a professional medical physicist in Australia, you must complete the requirements stipulated by the ACPSEM. This includes:

- undergraduate BSc (physics major and strong maths subjects) or BEng (strong physics and maths subjects), or ACPSEM approved equivalents
- an ACPSEM approved postgraduate degree in medical physics (usually masters or higher), or ACPSEM approved equivalents. You must also meet the bachelor degree requirements (above)
- completion of the ACPSEM Training, Education and Accreditation Program (TEAP) while employed as a Medical Physics Registrar at an accredited clinical centre

Accreditation for this program is pending.

Pathways
Upon successful completion of this program you may be eligible to undertake further studies in related programs at RMIT University, including PhD in Physics by research, subject to each program’s entry requirements.

Entry Requirements
An Australian bachelor degree with a Grade Point Average of at least 2.0 out of 4.0 in a physical science, biomedical engineering or equivalent, having substantial physics and mathematics components.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).
Master of Nanotechnology and Smart Materials

Program Code: MC204
Campus: City campus

Duration
2 years full-time or 4 years part-time.

2016 Tuition Fee
Full-Fee Places
$28,800 per year full-time.

How to Apply
Apply directly to RMIT University at

Further Information
Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260

URL
www.rmit.edu.au/programs/mc204

This program will equip you with specialist knowledge and advanced skills in the application and research of nanotechnology and new materials. It provides the basis for roles in technology development, in interdisciplinary and trans-disciplinary projects. You will gain a strong grounding in the physics and chemistry of nanotechnology and smart materials.

You will learn about relevant research tools to independently or collaboratively design and make new materials with customised properties. The program will develop your understanding of structure and property relationships at the nanoscale.

It covers important aspects of bio-nano science and quantum physics with various fields of nanotechnology.

Breadth in the physics, chemical and biomolecular areas will provide you with a background in the relevant techniques needed to understand the diverse applications of smart materials.

RMIT has leading nanotechnology and nanoscience facilities, enabling high-precision research in areas including nanofabrication, testing and analysis, nanoscale biophotonics and disease detection, among other areas. Nanotechnology research at RMIT has vast applications ranging from medicines fighting disease at the molecular level to the next generation of optics-based IT technologies that will transform communication systems and information security.

Learning and Teaching
RMIT has state-of-the-art nanotechnology facilities including the Micro-Nano Research Facility; the RMIT Microscopy and Microanalysis Facility; the Centre for Nanoscale Biophotonics and the Ian Potter NanoBioSensing Facility.

Students will conduct research projects using some or all of these facilities.

Program Structure
Research is a key feature of the program and you will undertake a significant research component. You will specialise in either chemistry or physics related nanotechnology. This program consists of 192 credit points:

Year One
Complete the following six (6) courses:
— Introduction to Nanotechnology and Smart Materials
— Masters Science
— Biophysical and Biomolecular Chemistry
— Research Methods
— Advanced Nanotechnology
— MicroNanoFabrication Cleanroom Processes

AND
Complete and select one (1) from the following:
— Analytical Spectroscopy
— Quantum Mechanics and Radiation Physics
— Photonics and Nuclear Physics
— Quantum & Statistical Physics
— Chemistry of Materials 2
— Advanced Spectroscopic Analysis

Year Two
Complete the following five (5) courses:
— Nanotechnology Seminar Course 1
— Project Planning and Literature Review
— Nanotechnology Seminar Course 2
— Applied Science Research Project 24
— Applied Science Research Project 36

Industry Connections
As a student enrolled in this program you will:
— undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional practice
— interact with industry and community when undertaking these activities
— complete these activities in real work contexts or situations; and in addition
— these interactions and the work contexts provide distinctive sources of feedback to you to assist your learning

Any or all of these aspects of your Work Integrated Learning (WIL) experience may be simulated.

The designated WIL course within this program is Advanced Nanotechnology which will introduce you to various advanced nanotechnology instruments and methods.

You will perform a series of intensive, small-group immersion activities in a number of different nanotechnology environments, including RMIT research laboratories, modeling experiences and off-site workshops.

Immense laboratory experiences will be performed in rotation and may include quantum imaging and biophotonics, ab initio and molecular modeling, medical imaging and synchrotron science.

This course will enable you to learn state-of-the-art techniques and provide you with the necessary skills to design a specific research project in your discipline area - all within authentic work environments and with inputs and feedback from current researchers and project supervisors.

Industrial and applied researchers working in the NanoSmart field will lead seminars throughout the program.

Career
Nanotechnology is a transformative force for manufacturing and is predicted to be worth S$US3 trillion globally by 2020.

Nanotechnology graduates are in high demand for research or industry-based careers in Australia and overseas.

There are graduate shortages in the nano-enabling specialisations of chemistry - particularly polymer, colloidal, organic and bio-organic chemistry; materials science and engineering; and microelectronics fabrication.

Graduates may work in industries related to telecommunications, computing, defence, solar energy, medicine, aerospace, paints and coatings, cosmetics and environmental remediation.

Graduates will also be research-ready to undertake a PhD program at RMIT or elsewhere.

Professional Recognition
There is no formal professional accreditation for this program, although graduates may be eligible for membership of professional bodies such as the Royal Australian Chemical Institute or the Australian Institute of Physics depending on their specialisation.

Pathways
If you have completed the double degree Bachelor of Nanotechnology/Applied Science you will be eligible for 24 credit points of exemptions.

If you have a Bachelor of Science or Bachelor of Engineering or nano specialisation you may be eligible for credit. This will be assessed on a case by case basis.

Entry Requirements
An Australian bachelor degree or equivalent in applied science, science or engineering, with a strong focus on Physics or Chemistry, with a minimum Grade Point Average (GPA) of 2.5 out of 4.0.

Applicants with a GPA between 2.0 and 2.5 and with two years relevant work experience may be considered.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).
Master of Occupational Health and Safety

incorporating Graduate Diploma in Occupational Health and Safety

Program Code Campus
MC135/GD052 City campus

Occupational Health and Safety (OHS) concerns the application of scientific principles to understand the nature of risks to the safety of people in workplaces. It is a multidisciplinary profession with applications in all industries and commerce.

Both community expectation and government legislation demand an increasingly higher level of protection for employees and the community from risks that threaten their safety and health. As such, there is also an increasing demand in society for professionals with experience and qualifications in OHS.

Learning and Teaching

Graduate Diploma in Occupational Health and Safety

The program is taught in block mode during one week per semester at the RMIT City campus, with online support and weekly online tutorials. All lectures and materials are provided online. In some courses there is a need for practical utilisation of instrumentation to measure workplace hazards, and this is done on an agreed practical day during the semester. RMIT has an excellent OHS laboratory containing the latest measurement equipment.

Many of the assignments used for assessment purposes will be based in your work organisation to ensure that theory is directly applied to practical applications.

Master of Occupational Health and Safety

The Master degree is a personal research activity in the third year after completion of the Graduate Diploma. The objective is to ensure that you are able to reflect critically on the OHS theory and practice gained in the two years of the Graduate Diploma, through planning and execution of a substantial workplace-based project.

Program Structure

Graduate Diploma in Occupational Health and Safety

Students are initially enrolled in the Graduate Diploma (96 credit points) program. On completion of the appropriate modules, students may exit with the Graduate Diploma.

The program content is based on the Core Body of Knowledge of OHS Professionals with additional material included. You will learn to apply this in workplaces. Special focus is placed in workplace law, risk management, workplace hazards and their control, psychosocial work environment, ergonomics, the role of the organisation in health and safety, and critical thinking and decision-making for OHS. In addition, you will complete a workplace intervention project.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking and Decision Making</td>
<td>12</td>
</tr>
<tr>
<td>Occupational Ergonomics</td>
<td>12</td>
</tr>
<tr>
<td>Principles and Practice of Work Health and Safety</td>
<td>12</td>
</tr>
<tr>
<td>The Psychosocial Work Environment</td>
<td>12</td>
</tr>
<tr>
<td>Work Hazards and Controls</td>
<td>12</td>
</tr>
<tr>
<td>Work Health and Safety and the Organisation</td>
<td>12</td>
</tr>
<tr>
<td>Work Health and Safety Intervention Project</td>
<td>12</td>
</tr>
<tr>
<td>Work Health and Safety Legal Systems</td>
<td>12</td>
</tr>
</tbody>
</table>

Master of Occupational Health and Safety

On completion of the Graduate Diploma you may apply for entry to the Master degree (144 credit points). Entry into the Master degree is dependent on a Distinction average grade achieved in the Graduate Diploma, and a specific topic for research to be undertaken.

The Research Methods course is taught online with some requirement for weekend contact. The project activity does not require any formal time on campus, but there will be a requirement for frequent interaction with the project supervisor on a mutually agreed basis. There will be discussion groups featuring all Master students. Should you wish to utilise specific occupational hygiene or ergonomics instrumentation or equipment for your project, this would be through agreement with your project supervisor.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>Research Methods</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 1</td>
<td>12</td>
</tr>
<tr>
<td>Research Project 2</td>
<td>24</td>
</tr>
</tbody>
</table>

Further Information

Associate Professor Susanne Tepe
School of Applied Sciences
Tel. +61 3 9925 2899
Email: susanne.tepe@rmit.edu.au
Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260

URL

www.rmit.edu.au/programs/mc135
Industry Connections
RMIT is committed to providing you with an education that strongly links formal learning with professional or vocational practice. Many assignments are designed to put theory into workplace practice, providing an education that is directly applicable to your role as an OHS professional.

Career
Graduates find work within all parts of industry, government, service organisations, consulting organisations, or in workers’ compensation insurance companies where they are engaged in workplace health and safety or risk management teams to advise corporate clients. OHS professionals can be called health and safety executives, OHS managers, WHS managers, risk managers, OHS coordinators or OHS advisers. Positions with additional environmental responsibilities are known as EHS or SHE (safety, health and environment) managers or coordinators.

Professional Recognition
The Safety Institute of Australia (SIA), the body representing OHS professionals and practitioners, recognises the Graduate Diploma in Occupational Health and Safety and the Master of Occupational Health and Safety as meeting the educational requirements for professional membership. Graduates are able to become a member, and with three years of appropriate experience can become a Chartered Professional Member (CPMSIA).
The Graduate Diploma in Occupational Health and Safety and the Master of Occupational Health and Safety are accredited by the Australian OHS Education Accreditation Board. Accreditation is current to 2018.
An accredited qualification such as the RMIT Graduate Diploma is the minimum requirement for professional certification as an OHS professional as well as SIA professional membership.

Entry Requirements
Graduate Diploma in Occupational Health and Safety
An Australian bachelor degree, or equivalent; or a Diploma of Occupational Health and Safety (BSB5131307) with a Grade Point Average of at least 2.0 out of 4.0 and three years of relevant OHS experience.
International qualifications are assessed according to the Australian Qualifications Framework (AQF).
Master of Occupational Health and Safety
Applicants must have completed the Graduate Diploma in Occupational Health and Safety with a GPA of at least 3.0 out of 4.0.
If applicants have graduated from another university with a Graduate Diploma in Occupational Health and Safety or equivalent, they may be considered for entry if they have a GPA of at least 3.0 out of 4.0, or equivalent.

Profile
“Working as a physiotherapist, I was passionate about health and safety. I chose RMIT because of its reputation for academic excellence and the practical application of skills in the workplace.

“The Graduate Diploma in Occupational Health and Safety has given me the practical skills and knowledge I need to work in occupational health and safety. The preparation I received meant that I was able to start working in the industry while studying my diploma.

“The critical thinking required in the program challenged my perceptions, how I view the world and the way I make decisions. The support from lecturers was outstanding; we weren’t just a number, they were available when we needed help.

“As a result of completing the course I’ve been able to secure my dream job working as an Occupational Health and Safety Officer. My role in an industry federation is busy and diverse; I’m involved in OHS training and education, representing members in WorkCover conciliations, and reviewing policy and legislation.”

Claire Fritze
Graduate Diploma in Occupational Health and Safety
Master of Statistics and Operations Research

Program Code: MC004
Campus: City campus

Duration
2 years full-time or 4 years part-time.

2016 Tuition Fee
Full-Fee Places
$20,160 per year full-time.
Please refer to fees information on page 22.

How to Apply
Apply directly to RMIT University at www.rmit.edu.au/programs/apply/direct.
Please refer to How to Apply on page 23.

Further Information
Dr Melih Ozlen
Program Leader
Tel. +61 3 9925 3007
Email: melih.ozlen@rmit.edu.au
Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260

URL
www.rmit.edu.au/programs/mc004

This program aims to provide opportunities to further your understanding in the modelling of physical, biological and economic phenomena so that you will be able to contribute to applied research and development in industry, commerce and research. The consulting component and/or minor thesis will develop your consulting and research skills.

The program furthers your knowledge of statistical and operations research methodologies, and provides a theoretical foundation combined with practical applications of current techniques employed by practising engineers, scientists and other professionals in industry, research, consulting, teaching and business.

Learning and Teaching
The program is offered through a flexible combination of lectures, tutorials and computer laboratory classes. There are also opportunities for students to work as part of a team on projects and in consulting activities.

Program Structure
The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points). The following is an example of courses offered:

- Advanced Programming
- Algorithms and Analysis
- Analysis of Categorical Data
- Analysis of Large Data Sets
- Applied Bayesian Statistics
- Big Data Infrastructures
- Big Data Processing
- Data Mining
- Data Visualisation
- Database Concepts
- Database Systems
- Forecasting
- Game Theory and Its Applications
- GIS Fundamentals
- Industrial Research Methods
- Industrial Research Project
- Information Systems Security Communications
- Information Theory for Secure
- Introduction to Statistical Computing
- Introduction to Statistics
- Mathematical Modelling and Decision Analysis
- Methods and Models of Operations Research
- Minor Thesis
- Multivariate Analysis Techniques
- Programming Fundamentals
- Programming Techniques
- Regression Analysis
- Scripting Language Programming
- Sports Analytics
- Statistical Inference
- Statistics of Quality Control and Performance Analysis
- Systems Simulation
- Time Series Analysis

Industry Connections
You will apply your knowledge and skills via consulting and work-integrated learning, and your involvement with industry projects and data will give you the chance to build your theoretical capabilities in the context of practical problems.

Career
Demand for statistical and operations research skills is growing in this data-driven world. Graduates of this program are employed by a variety of scientific, commercial and government enterprises, most commonly as statisticians, business analysts, consultants, modellers and researchers.

Profile
“My dream job is to become an actuary, analysing risk for insurance companies. To do this I need a strong background in statistics, so I chose to study the Master of Statistics and Operations Research at RMIT.

“I chose RMIT because I believe it is the best university in Melbourne to study statistics as it combines experienced and knowledgeable teaching staff with practical learning experiences. A highlight of my program is an internship as a donations analyst with The Smith Family. I love that I can help people as part of my studies and am very proud to be part of this organisation.”

Harmeet Kaur
Master of Statistics and Operations Research

Professional Recognition
Graduates are eligible to become members of the following organisations:
- Statistical Society of Australia Inc. (SSAI)
- Australian Society for Operations Research (ASOR)
- American Statistical Association (ASA)
- Institute for Operations Research and the Management Sciences (INFORMS)

Entry Requirements
- A bachelor degree in any discipline with a Grade Point Average of 2.00 out of 4.00; or
- At least 10 years work experience in analytics, statistics, operations research or a relevant discipline.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).
The table below shows a student’s annual tuition fee for a full-time study load in 2016, for students in a full-fee place. For information about full-fee places and other fees and expenses, refer to Fees Explained on page 22.

<table>
<thead>
<tr>
<th>Program Code</th>
<th>Award Title</th>
<th>Full Time Duration</th>
<th>2016 Annual Program Fee</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC242</td>
<td>Master of Analytics</td>
<td>2 years full-time</td>
<td>$20,160</td>
<td>6</td>
</tr>
<tr>
<td>MC111</td>
<td>Master of Biotechnology</td>
<td>2 years full-time</td>
<td>$28,800</td>
<td>8</td>
</tr>
<tr>
<td>MC191</td>
<td>Master of Environmental Science and Technology</td>
<td>2 years full-time</td>
<td>$28,800</td>
<td>10</td>
</tr>
<tr>
<td>MC068</td>
<td>Master of Applied Science (Geospatial Information)</td>
<td>1.5 years full-time</td>
<td>$20,160</td>
<td>12</td>
</tr>
<tr>
<td>MC158</td>
<td>Master of Laboratory Medicine</td>
<td>2 years full-time</td>
<td>$28,800</td>
<td>14</td>
</tr>
<tr>
<td>MC215</td>
<td>Master of Medical Physics</td>
<td>2 years full-time</td>
<td>$28,800</td>
<td>16</td>
</tr>
<tr>
<td>MC204</td>
<td>Master of Nanotechnology and Smart Materials</td>
<td>2 years full-time</td>
<td>$28,800</td>
<td>17</td>
</tr>
<tr>
<td>MC135</td>
<td>Master of Occupational Health and Safety</td>
<td>3 years part-time*</td>
<td>$28,800*</td>
<td>18</td>
</tr>
<tr>
<td>MC004</td>
<td>Master of Statistics and Operations Research</td>
<td>2 years full-time</td>
<td>$20,160</td>
<td>20</td>
</tr>
</tbody>
</table>

Fee listed is based on a full-time study load. For details refer to Fees Explained on page 22.

* Full-time study unavailable for this program.

The tuition fees vary according to each program and are adjusted on an annual basis. Fees for 2016 are listed in this brochure or visit www.rmit.edu.au/programs/fees from October 2015.

RMIT reserves the right to adjust fees for full-fee places on an annual basis by an amount that will not exceed 7.5% each year (subject to rounding). For higher education fees, tuition fees are rounded up to the nearest $10 per credit point increment. The absolute fee increase may exceed 7.5%.

Profile

“I completed my bachelor degree studies at RMIT and graduated with a Bachelor of Environmental Science and Social Science (Environments). This experience was really enjoyable, so for me it was a ‘no-brainer’ that I would go on to complete postgraduate studies at RMIT. My studies focus on the effect of predicted climate change conditions – such as ocean acidification and ocean warming – on the endemic purple sea urchin. The issue of climate change and its effect on the ocean and its inhabitants concerns me. I want to do what I can to help prevent the disastrous effects of ocean acidification and warming. Through scientific investigation, I hope to help inform management strategies for future scenarios.”

Natalie Manahan
Master of Science (Applied Biology and Biotechnology)

Profile

“In consultation with my supervisors, we have identified a need for improved processes used by scientists in the field of environmental toxicology. My thesis topic will work on low cost devices that produce high-quality, large sample-size data sets from a simple, easy to use apparatus. This will allow scientists to test new substances for toxicity faster than is currently possible and without the need for an army of laboratory technicians assisting. In the future, I hope to continue my research work via a postdoctorate degree and to one day become a lecturer in environmental toxicology.”

Rhys Cartlidge
PhD in Science (Applied Biology and Biotechnology) (page 8)
Fees Explained

Postgraduate Studies by Coursework
What you pay will depend on whether you are offered a Commonwealth supported place (CSP) or a full-fee place. Financial assistance is available to eligible students regardless of the type of place you enrol in.

Commonwealth Supported Places (CSP)
A Commonwealth supported place is a place at university where the tuition fee is jointly paid by you and the Australian Government. Your share of the fee (student contribution) is set by the government and is determined by the discipline areas (bands) of your individual enrolled courses, not the overall program. For more information about what fees you will pay in 2016 visit www.rmit.edu.au/programs/fees.

The Australian Government has announced changes to the funding of CSPs. These may affect the proportion of the fee paid by student contribution from 2016. For more information visit www.rmit.edu.au/programs/fees and www.studyassist.gov.au.

Full-Fee Places
Students in full-fee places are required to pay a tuition fee that covers the full tuition costs of their program. The tuition fees vary according to each program and are adjusted on an annual basis.

Financial assistance may be available through the FEE-HELP scheme (see right for details).

Only students who are Australian citizens, New Zealand citizens or hold an Australian Permanent Resident Visa are eligible for a domestic full-fee place. Students who do not meet these citizenship and residency requirements may be offered a place as an onshore international student.

Fees for 2016 are listed under each program in this booklet or visit www.rmit.edu.au/programs/fees from October 2015.

Postgraduate Degrees by Research
If you are an Australian citizen, Australian permanent resident or New Zealand citizen you may be eligible for a Research Training Scheme (RTS) place where your tuition costs are funded by the Commonwealth Government and you therefore have full exemption from tuition fees.

Acceptance in an RTS place is very competitive and places are granted on the condition that you meet progress requirements and complete within the allotted time for your program and your status as a part-time or full-time candidate.

www.rmit.edu.au/graduateresearch

Other Fees and Expenses
In addition to tuition fees, you will be charged a student services and amenities fee (SSAF), which is indexed annually. Eligible students can defer payment of the fee through SA-HELP. For more information visit www.rmit.edu.au/programs/fees/ssaf.

You may also be required to purchase items related to your program, including field trips, specified textbooks and equipment. These expenses vary from program to program. For more information visit www.rmit.edu.au/programs/fees.

Financial Assistance

Scholarships
Before you let financial constraints or living arrangements get in the way of your decision to study, find out about the range of RMIT scholarships available.

Coursework Scholarships Office
Tel. +61 3 9925 2811
Email: scholarships@rmit.edu.au
www.rmit.edu.au/scholarships

HECS-HELP
HECS-HELP assists eligible students in a Commonwealth supported place to pay their student contribution. To learn more about HECS-HELP visit www.rmit.edu.au/programs/fees/helploans/hecs-help.

FEE-HELP
FEE-HELP is an optional loan scheme that assists eligible students to pay all or part of their tuition fees. To learn more about FEE-HELP visit www.rmit.edu.au/programs/fees/helploans/fee-help.

Income Support
The Commonwealth Government has approved a number of RMIT University postgraduate programs for student income support payments. The list of approved programs is available at www.rmit.edu.au/programs/fees/highered/masters.

To check your eligibility for student income support or rent assistance, please contact Centrelink or visit www.humanservices.gov.au.

Income Tax Deductions
Students may be eligible to apply for income tax deductions relating to the education expenses that are linked to their employment. The Australian Taxation Office (ATO) website at www.ato.gov.au provides guidance on the taxation treatment of your fees.
How to Apply

Postgraduate Studies by Coursework and Honours Degrees

Entry Requirements
To be considered for admission you must meet the RMIT University entry requirements as well as any program entry requirements. Entry requirements for each program can be accessed via www.rmit.edu.au/study-with-us

Direct Application
Apply online at www.rmit.edu.au/programs/apply/direct.
Semester 1 timely applications for coursework programs open on Open Day (9 August) and are due by 10 November.*
Semester 2 (Midyear) applications open 1 May and are due by 31 May.*
*Applications will continue to be accepted until all places have been filled. You are encouraged to lodge your application early.

Postgraduate Degrees by Research

Entry Requirements
To be considered for admission you must meet RMIT University entry requirements as well as any program entry requirements. Refer to the program URL on page 5 for entry requirements before applying. For more information visit www.rmit.edu.au/programs/research.

Finding a Supervisor
Before you apply, you need to find qualified supervisors with similar research interests to you and discuss a research proposal with them. It is recommended that you start by contacting the Higher Degrees by Research Coordinator in the academic school to which you are applying, as they can direct you to appropriate potential supervisors. The supervisors will read and comment on your proposal and indicate if they are willing to supervise you. Your research proposal must be included in your application.
For more information about finding a supervisor visit www.rmit.edu.au/research/search-supervisors.

Application Process
Application for candidature involves three steps:
1. Find a program and confirm eligibility.
2. Seek academic advice and secure the support of qualified supervisor(s).
3. Complete and submit the application form and supporting documents.
For detailed information visit www.rmit.edu.au/programs/apply/research or contact the School of Graduate Research at www.rmit.edu.au/graduateresearch.

Application Timelines
Applications to higher degree programs are accepted all year round. There are two scholarship rounds.
Applications for 2016 scholarships are open from 1 July until 31 October 2015. For more information visit http://www.rmit.edu.au/research/phds-and-other-research-degrees/scholarships-and-support/.

Further Information
Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260
Why Postgrad?

A Competitive Edge

Employment opportunities increase by 85% after completing a postgraduate qualification.*

Increase Your Earnings

On average, a postgraduate qualification will up your long-term earnings by more than 15%.

Turn Career Dreams into Reality

Almost 50% of people feel like they are in the wrong career. A postgraduate qualification will empower you to follow your passion.

Why RMIT?

1. Take your career to the next level
   RMIT was ranked 79th in the world by global employers for graduate employability in the 2014 QS World University Rankings.

2. Flexibility that works for you
   40% of RMIT’s 11,700 postgraduate students study part-time with many flexible learning options.

3. Broaden your horizons
   RMIT offers exchange opportunities at over 200 institutions across 41 countries.

4. Open doors to worldwide opportunities
   RMIT has over 200 research collaborations with overseas partners and industry. RMIT graduates are employed in more than 100 countries around the world.

5. Transform the future through research
   RMIT is ranked as one of the top five Australian universities for excellence in key research disciplines, and was awarded more than $19 million in research funding in 2014.

6. Education that packs a punch for your prospects
   RMIT is ranked as one of the world’s top 35 universities for key subject areas in the 2015 QS World University Rankings.