

# RESEARCH HIGHER DEGREE PROGRAMS

UQ's offers access to world-class researchers and excellent facilities, as well as Australia's most convenient research higher degree application process.



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UQ offers two research higher degrees (RHD): Doctor of Philosophy (PhD) and Master of Philosophy (MPhil).

**The PhD takes approximately three to four years and the MPhil approximately one to two years to complete. The most important part of the degree is the research project and in most disciplines little, if any, coursework is required.**

## Why do a PhD or MPhil?

In Australia the PhD is the academic entry qualification to academic and professional research careers. To teach and research at an advanced level in an Australian university, or to provide research leadership in the industry, you need to successfully complete a PhD. A RHD may also be pursued purely to satisfy intellectual curiosity or a passion for greater knowledge in a specific area of academic enquiry. Successful completion of a RHD requires sustained intellectual endeavour at the highest level and a passionate commitment to answering a specific research question.

## Why choose UQ for RHD?

The University of Queensland is an ideal choice for your research base in Australia because:

- UQ is one of the top three research universities in Australia
- UQ has the second largest number of international PhD candidates of any university in Australia
- PhD and MPhil candidates have the opportunity to work with renowned researchers with international reputations as leaders in their fields
- UQ's seven world-class research institutes have made the University an appealing destination for the world's leading researchers.

Find out more about UQ's research strengths at [www.uq.edu.au/grad-school/uq-research](http://www.uq.edu.au/grad-school/uq-research)

## How are research higher degrees different to postgraduate coursework degrees?

Postgraduate coursework degrees offer set courses and majors, and are structured similarly to undergraduate degrees, whereas the central aim of the RHD is to produce, through research and scholarship, an original contribution to a particular field of study.

A research project that successfully describes and develops this aim is critical to admission to a PhD or MPhil program at UQ. While coursework students acquire knowledge and the skills to apply it, RHD candidates must also produce new knowledge.

To achieve this aim requires a greater commitment of time than the semester-based coursework degrees. Full-time RHD candidates are expected to commit equivalent time and energy to their degree as they would in full-time employment: approximately 36 hours per week, 48 weeks of the year.

## Who is admitted to RHD?

UQ seeks to attract the highest calibre RHD candidates to contribute to our research effort. For the mutual benefit of the University and RHD candidates, it is important to ensure the best possible match between candidates and their proposed research, with UQ's advisors, infrastructure and resources.

Candidates are selected not just on previous academic performance but also on demonstrated performance and/or potential in five key areas:

- knowledge and skills in the field of study
- effective communication
- critical judgement and research skills
- independence and creativity
- ethics and social understanding.

Previous research experience is fundamental to admission to RHD. Most commonly, undergraduate and postgraduate coursework degrees with a significant research component provide an academic basis for eligibility to RHD programs. See page 28 for pathways into RHD.

## When can I start my RHD?

Applications can be lodged any day of the year and successful applicants may start their RHD any day of the year.

## What are the costs involved in doing a RHD?

Applicants must consider three funding issues:

- 1) Tuition fees: international candidates pay tuition fees on a semester-based arrangement. Fees are scheduled in three bands according to research discipline

areas (see page 102). We also provide a suite of highly competitive, merit-based and prestigious scholarships.

- 2) Living expenses: information on living expenses is available at [www.uq.edu.au/study/future-students.html](http://www.uq.edu.au/study/future-students.html)
- 3) Project costs: schools and institutes must consider a third funding issue: the agreed cost of the research project.

## Scholarships

UQ provides over \$24 million in scholarship funding each year to support the tuition fee and living and expenses of RHD candidates. Applicants indicate on their application form whether they wish to be considered for financial support. Scholarships are awarded through transparent and merit-based criteria inherent to UQ's RHD selection process. There are four scholarship rounds each year.

## What is distinct about UQ's model for RHD: the UQ advantage

The UQ advantage is a term that we use to describe a vibrant research environment for RHD students, providing tailored professional development and training in research commercialisation. At UQ, you can start your research higher degree on any day of the year. When you start, we want you to start researching as soon as possible: the UQ advantage gives you the opportunity to maximise your research potential.

With few exceptions, at UQ your RHD program allows you to start your research immediately – no return to lecture theatres for coursework unless you want or need to. Our RHD programs and the financial support we provide are flexible: a single application process for both admission and scholarship. Four major international scholarship rounds per year allow you to apply when you are ready to do so. Your research proposal is crucially important and we want you to take due care in preparing it. Our selection process closely examines the strengths and needs of potential RHD candidates. It enables UQ to reward excellence, choose the highest calibre of RHD candidates, and to tailor our professional and skills



Physiotherapy PhD student Allison Mandrusiak and Master of Commerce student David Tam at UQ St Lucia

development program for maximum benefit to individuals and the cohort as a whole.

### Research commercialisation opportunities for RHD candidates

Traditionally universities do two things: teaching and research. At UQ, we do three: teaching, research, and research commercialisation. UQ has the highest concentration of Cooperative Research Centres (CRC) and industry funding of any Australian university. UQ's industry links provide significant opportunities for collaboration and commercialisation to our RHD candidates. Find out about research commercialisation opportunities, including free workshops, at: [www.uq.edu.au/grad-school/commercialisation](http://www.uq.edu.au/grad-school/commercialisation)

### RHD program descriptions

Research higher degree programs provide research training that develops independent research skills and an ability to relate a specific research topic to a broad framework of knowledge in a relevant discipline area. Candidates develop their capacity to formulate a significant problem; to articulate and critical analysis; to master appropriate conceptual and methodological skills; and to carry out an original program of research.

The PhD is greater in duration, breadth of enquiry and its contribution to the discipline area than the MPhil. The MPhil shares the features of the PhD but allows scholars to achieve mastery of their research focus to a degree and within a timeframe that is commensurate to their career or life goal.

### PhD and MPhil at UQ

The PhD and MPhil are offered in all research fields available at The University of Queensland

The academic basis for eligibility to apply includes prior research training at least equivalent to that provided by UQ bachelor degree with honours class IIA for PhD and honours class IIB for MPhil. Other qualifications and research experience may be considered.

The expected duration of the PhD is three to four years full-time or one to two years full-time for the MPhil. The actual duration of both may vary.

### Formal and additional requirements

UQ has 48 teaching and research sites across Queensland including campuses at St Lucia, Gatton, Herston and Ipswich. Enrolment is generally internal (on campus), however, RHD programs may also occur remotely, though some time must be spent on campus as agreed with your advisory team.

Refer to General Award Rules Part 4 – Postgraduate Research Awards (Master of

Philosophy and Doctor of Philosophy) for formal entry requirements ([www.uq.edu.au/student/GeneralRules2009/2009GARs.htm](http://www.uq.edu.au/student/GeneralRules2009/2009GARs.htm))

Some disciplines may have additional requirements for admission: for more information see [www.uq.edu.au/grad-school/school-admission-requirements](http://www.uq.edu.au/grad-school/school-admission-requirements).

#### Graduate School

[www.uq.edu.au/grad-school](http://www.uq.edu.au/grad-school)

Email: [enquiries@gradschool.uq.edu.au](mailto:enquiries@gradschool.uq.edu.au)

### How to apply for RHD

[www.uq.edu.au/grad-school/admission](http://www.uq.edu.au/grad-school/admission)



#### 1. Find your research advisor

You can find potential advisors through a variety of sources, such as:

- the school/institute you would like to do your RHD with ([www.uq.edu.au/grad-school/schoolcontact-details](http://www.uq.edu.au/grad-school/schoolcontact-details))
- the UQ reSEARCHers online database ([www.uq.edu.au/uqresearchers](http://www.uq.edu.au/uqresearchers))
- the UQ Experts online database ([www.uq.edu.au/uqexperts](http://www.uq.edu.au/uqexperts))

You may be expected to complete an Expression of Interest Form ([www.uq.edu.au/grad-school/candidature-forms](http://www.uq.edu.au/grad-school/candidature-forms)) and submit it to the school/institute that best matches your research interests. This form helps the school/institute to link your research interests and experience to advisors and resources.

\*Applicants to the Schools of Dentistry, Health and Rehabilitation Sciences, Human Movement Studies, Medicine, Nursing and Midwifery, Pharmacy, or Population Health do NOT complete this form. Instead, contact the school postgraduate administrator in the first instance ([www.uq.edu.au/grad-school/schoolcontact-details](http://www.uq.edu.au/grad-school/schoolcontact-details)).

#### 2. Develop your research proposal

If your Expression of Interest is successful, you will be invited by the school or institute to further develop your research proposal.

Your research proposal describes the components necessary for a successful research candidature, including:

- the right academic experts, the right facilities, enough funding to meet research expenses
- a research project in which the:
  - significance of the research question is appropriate to the degree
  - research methodology is academically strong and the expected outcomes are described
  - research work can be completed within two years for MPhil or four years for PhD.

#### 3. Complete the application for enrolment

If your research proposal is approved, you will be invited to formally apply for admission to UQ.

For more information visit [www.uq.edu.au/grad-school/domestic-or-international-applicant](http://www.uq.edu.au/grad-school/domestic-or-international-applicant)

# STUDENT RESEARCH

UQ's annual Three Minute Thesis competition encourages research students to think about how to communicate their research to an intelligent but non-specialist audience.

## THREE MINUTE THESIS

**The ability to clearly communicate research is essential for a successful career as a researcher.**

PhD and MPhil candidates have three minutes to give an engaging and dynamic response to the question "So, how's your thesis going?" or "What are you researching?" A single PowerPoint slide is permitted but no additional electronic media.

In 2008, UQ organised the inaugural competition with 160 competitors.

In 2009, 230 PhD and MPhil candidates, representing UQ's seven faculties and the combined research institutes competed in the Three Minute Thesis competition.

Competitors ranged in age from 22 to 65, with an even gender balance and strong participation from our international candidates (a third of all competitors).

In 2010, as part of UQ's centenary National and Trans-Tasman Three Minute Thesis competition.

### 2009 finalists

**Faculty of Engineering, Architecture and Information Technology**

**School of Mining and Mechanical Engineering**

**Michael Champion**

"Jumbo drill rigs are used for development drilling in underground mining applications. These rigs typically have two or three booms commanded by a human operator. The operator's role is to sequentially drill a pre-defined blast pattern by positioning these drills and complete the set of tasks in the minimum time. My thesis investigates the potential step improvement in time in using a three-boom machine over a two-boom machine and how the system responds to unexpected downtime (for example, breakdown)."

**Combined research institutes**

**Diamantina Institute for Cancer, Immunology and Metabolic Medicine**

**Stuart Davidson**

"I am working on the disease ankylosing spondylitis, which is a debilitating form of arthritis that causes fusion of the spine and pelvis. I am looking at the genetic basis of the disease, particularly the role of the gene IL23R, and how these genetic changes are able to cause disease."

**Faculty of Science**

**School of Mathematics and Physics**

**Chao Feng**

"At a few billionth of a degree above absolute zero the strange wave-like nature of all matter dominates and perplexes. In particular, in the strange fluid that forms at such temperatures how is it that no friction exists below a certain point? And when and why does it come into existence? These are the questions I am looking for answers to."

**Faculty of Natural Resources, Animals and Environmental Science**

**School of Animal Studies**

**Emma Gagen, People's Choice Award**

"I am investigating a group of bacteria known as acetogens, in the rumen of cows and sheep and the gut of the Tammur wallaby. Acetogens grow on hydrogen and carbon dioxide and produce acetate. They may have a role in reducing greenhouse gas emissions from livestock, by competing with methane-producing organisms."

**Faculty of Business, Economics and Law**

**School of Economics**

**Andrew Hodge**

"Most people think economics is about money and maths. My thesis explores a rapidly growing literature that says that this is simply not so. Economics is the science of choice. Most of us choose to try to be happy but we don't always get there. So, my thesis looks at the economics of happiness."

**Faculty of Health Sciences**

**School of Health and Rehabilitation Sciences**

**David McDonald, Runner-up**

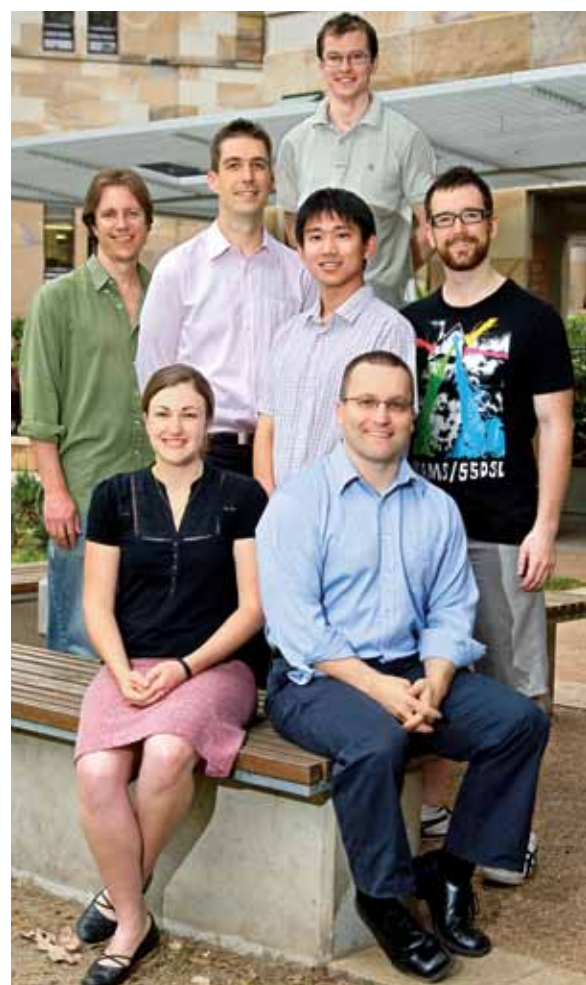
"Why do some people keep hurting their back? By recording back muscle activity, we found that back muscle function does not return to normal despite recovery from pain. We argue that these changes in activity could leave the spine with less back muscle support than is needed to prevent re-injury."

**Faculty of Social and Behavioural Sciences**

**School of Psychology**

**Richard Ronay, Winner**

"My research to date has been concerned with dynamic biosocial models of decision-making and behaviours. I have studied how individual differences in testosterone and short-term fluctuations in testosterone influence decision-making. I have also explored how the neurology that facilitates the expression of self-control influences decision-making under risk."



Clockwise from left: Richard Ronay, Emma Gagen, Michael Champion, Chao Feng, Andrew Hodge, Stuart Davidson, David MacDonald (Avan Stallard not pictured)

**Faculty of Arts**

**School of History, Philosophy, Religion and Classics**

**Avan Stallard**

"It's the study of the idea that a southern continent would be found to exist in the southern hemisphere – in Antiquity referred to as Antipodes, in the early modern period as Terra Australis. I explore why so many people were besotted with this idea, believing a Great South Land would be found even after Australia had been discovered, and pronounced a disappointment."