The University of Queensland
School of Mathematics and Physics

Master of Science (Physics)

Postgraduate Coursework Student Handbook (2018 - v3)

Download latest .pdf from
`https://smp.uq.edu.au/study/postgraduate-coursework`

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Chapter 1

Summary of MSc Physics at UQ

Welcome to the UQ Master of Science (Physics) handbook! This documents the processes from Application through to Graduation for our 3-semester-long MSc programme:

`https://smp.uq.edu.au/study`

The School of Mathematics and Physics comprises the disciplines of Mathematics (including Statistics) and Physics, and we offer postgraduate MSc coursework programmes that include a significant research component. Our courses are only taught in internal mode (not external by correspondence), so you will take courses & research on our beautiful campus at St Lucia (suburb), Brisbane (city), Queensland (state), on the eastern coast of Australia.

To ensure that all international students receive a quality education in Australia, the Australian Government has developed a set of standards known as the Education Services for Overseas Students (ESOS) Framework. UQ is on the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS), which guarantees that UQ and the programs you are undertaking in Australia meet the high quality standards set out by the Australian Government.

Disclaimer: This document is a summary of information found throughout the UQ webpages and on-line systems, and these should be referred to for definitive information.

1.1 Welcome to Brisbane, Queensland!

Brisbane prides itself on being a *new-world city*. With a population of 2,400,000 we are the third biggest city in Australia, about half the size of Sydney and Melbourne:
`https://www.wikipedia.org/wiki/Brisbane`
We have a sub-tropical climate dominated by year-round mostly temperate weather. The city and St Lucia campus are situated on the Brisbane River near the coast, surrounded by a low-lying mountain-range consisting of national parks and ancient rainforests. It is 1 hour travel to the world-famous surf beaches of the Sunshine Coast and the Gold Coast, and 1.5 hours to Byron Bay. We never have pollution or smog, just the occasional storm to watch out for!

Brisbane has a modern cafe and restaurant culture, several nightlife precincts, hosts popular entertainment and major sporting events, and has excellent museums and art galleries.

We acknowledge the Australian aboriginal traditional owners of the land that UQ & Brisbane is built upon — the Turrbal and Jagara — who have lived on this ancient land for tens of thousands of years. We pay our respects to elders - past, present, and future.

Photo of Southbank riverside beach facing Brisbane's central business district (2018)

1.2 Why study at UQ?

UQ, founded in 1909, is currently ranked around the **top-50 of universities** in the world, `http://www.uq.edu.au/about/university-profile`
is one of only three Australian members of the global *Universitas 21* group, and is a founding member of the prestigious *Group of Eight* (Go8) universities in Australia. We have graduated over 250,000 students, and have an annual income of around $1.7 billion Australian Dollars (1 AUD $\approx$ 0.8 USD).

We have a modernised expansive campus with environmentally friendly transportation options via an extensive train/bus/ferry network. This includes over the Brisbane River via a "Green Bridge" (pedestrian, bike, and bus traffic only). Brisbane city also has a CityCycle rideshare programme, and transport companies such as Uber and Lyft are popular.

1.3 Why study a UQ MSc Physics?

At UQ we aim for teaching, learning, and research excellence in the discipline of Physics:

- `https://smp.uq.edu.au/career-prospects`
- A MSc involves advanced courses generally focused on the latest physics topics and personalised project work which involves understanding state-of-the-art research and then extending it.
- We a high-quality 3-semester long programme where our Masters courses are co-taught in parallel with our undergraduate courses, with an advanced component required.
- Small classes — in your first semester of coursework there will be 30-50 students per class with tutor support, whilst the more advanced and specialised classes have 10-20 students.
- Our Physics lecturers have won awards for our innovative teaching methods, with an increasing emphasis on flipped and interactive-classroom techniques in our advanced undergraduate and Masters courses.

- We specialise in five main research areas of physics `https://smp.uq.edu.au/physics` :
  - Quantum Science,
  - Condensed Matter Physics,
  - Astrophysics,
  - Biophotonics and Laser Science,
  - Physics Education.

- A massive choice of individual research projects that are undertaken generally with one dedicated supervisor, eg. see a dynamic list via:
  `https://smp.uq.edu.au/research/projects`

- Our world-class researchers have won many research fellowships and awards:
  `https://smp.uq.edu.au/about`

- We are involved in 3 Australian Research Council Centre of Excellence (funded 2017-2023):
  - ARC Centre of Excellence for Engineered Quantum Systems (UQ leads),
  `https://equs.org/`
  - ARC Centre of Excellence for Future Low-Energy Electronics Technologies,
  `https://www.fleet.org.au`
  - ARC Centre of Excellence for Quantum Computation and Communication Technology,
  `https://www.cqc2t.org/`

- We are involved in various other UQ-based Research Centres:
  - Centre for Hypersonics `http://hypersonics.mechmining.uq.edu.au/` ,
  - Centre for Organic Photonics & Electronics `https://cope.centre.uq.edu.au/` ,
  - Precision Sensing Initiative `https://smp.uq.edu.au/precision-sensing-initiative` .

- We have been recognised for our efforts to implement and promote an equitable teaching and research workplace `https://smp.uq.edu.au/equitable-workplace` .

- Having completed an MSc Physics at UQ qualifies you for entrance into PhD programmes in Australia. Note that in Australia these have no coursework nor qualifying exam component, requiring approximately 3 years of research. Australian universities do not require the GRE or similar PhD entrance exams. MPhil and PhD Scholarships are, however, heavily judged by your overall GPA (see Chapter 7.1).

Photo of UQ Physics faculty, staff, and students (2016)

1.3.1 3-semester Masters or 2-semester Honours?

The MSc gives a qualification comparable to an Australian honours degree. In Australia, students interested in postgraduate research degrees (MPhil or PhD) usually take a three-year undergraduate degree (eg. BSc) followed by a separate one-year BSc(Hons) degree for their 4th-year called a BSc Honours program. Students with a good background in their field at an advanced undergraduate level who are thinking of proceeding to a research degree in Australia should consider enrolling in the BSc(Hons). One advantage of honours for domestic students is that these are Commonwealth Supported Places, and come under the HECS-HELP scheme. A disadvantage of an honours degree is that it may not be familiar to overseas universities and employers.

The postgraduate coursework degrees are more flexible and also allow students to build up their background in undergraduate topics. For this reason, postgraduate coursework degrees often appeal to people who want to change direction after their first undergraduate degree. For example:

- engineering graduates who have done only first and second year mathematics and/or physics courses as part of an engineering degree and who would like to do more advanced study in these areas, such as courses on differential equations, mathematical modelling, quantum mechanics or computational science.

- future teachers who would like to take more mathematics or physics courses so they can become mathematics or physics teachers through the GDipEd.

Please discuss this question further with the Physics Postgraduate Coursework Convenor.

1.4 Fees and Cost estimates for 2018

The cost for the 3-semester Master of Science (Program 5244, #24 units) depends on your category:

(A) For Domestic Students (Australian Citizens and Permanent Residents) the **indicative cost** of full tuition fees for 2017 was $36,930 AUD (ie. $24,620 AUD per year) according to:
`https://future-students.uq.edu.au/study/program/Master-of-Science-5244#fees`
This is $3K per course (8 courses), along with $12K for the research course/s. There are no Commonwealth Supported Places available for the UQ MSc programme. However, FEE-HELP is an Australian Government loan scheme to assist eligible domestic postgraduate students with the cost of their tuition fees — for more information see
`https://future-students.uq.edu.au/apply/postgraduate/fees` .

(B) For International Students the **indicative cost** for 2018 for the 3-semester MSc Physics is about $61,200 AUD (ie. $40K per year) according to:
`https://future-students.uq.edu.au/apply/postgraduate/international/fees`
This is $5K per course (8 courses), along with $20K for the research course/s. The payment procedures are discussed in Chapter 3.3.

For each student we aim to provide a tailored and excellent value-for-money programme. You will be provided with a desk in shared office space (subject to availability — with preference given to those undertaking research projects that semester), with a desktop computer (if required) to help you concentrate on your study along with your peers. We may also be trialling a mentorship programme in your first semester at UQ (for 2018 commencing students).

1.4.1 Other fees and a guide to living-in-Brisbane costs

During your time at UQ there will be other costs to factor into your budget such as:

- Student Services and Amenities Fee (SSAF) — a compulsory annual fee of $298 AUD for 2018 includes funding eg. for the UQ Union and SHOC `http://www.uqu.com.au/student-support`
- (International Students) Australian Visa costs (see Section 3.1)
- (International Students) Healthcare Insurance (see Section 3.2)
- Any Required Textbooks (although some of our courses only have Recommended Textbooks)

The cost of living in Brisbane is generally less than that of Sydney and Melbourne. See: `https://future-students.uq.edu.au/daily-living` to get an idea of Accommodation, Day-to-day Transport, Phone and Internet.

To get an idea of what foods are sold in the main Australian supermarkets see: `https://www.coles.com.au/` , `https://www.woolworths.com.au/` , `https://www.aldi.com.au/` There are also fantastic markets dotted around Brisbane during the weekend.

1.4.2 Scholarships

A range of scholarships are available for MSc Physics students, both domestic students and international. However, they are very competitive as you are competing between students from other disciplines.

A list is available at: `https://scholarships.uq.edu.au/` (search by Study area of "Agribusiness, Agriculture, Environment and Science" etc). In particular we recommend considering:

- (UQ) International Study Abroad Scholarship for High Achievers from specific countries: France, Germany, Mexico, India, Indonesia.
- (UQ) Science International Scholarships (all countries): `https://scholarships.uq.edu.au/scholarship/science-international-scholarships`
- (External) USA to Australia Fellowship Program: `https://scholarships.uq.edu.au/scholarship/us-australia-fellowship-program`
- (External) Endeavour Scholarships and Fellowships: `https://scholarships.uq.edu.au/scholarship/endeavour-scholarships-and-fellowships`
- (External) Australia Awards Scholarships open for students from a range of countries: Bangladesh, Bhutan, Botswana, Cambodia, Micronesia, Fiji, New Caledonia, French Polynesia (and Wallis and Futuna), Ghana, India, Indonesia, Kenya, Kiribati, Laos, Madagascar, Malawi, Maldives, Marshall Islands, Mauritius, Mongolia, Mozambique, Myanmar, Nauru, Nepal, Nigeria, Pakistan, Palestinian Territories, Papua New Guinea, Philippines, Republic of Palau, Samoa, Solomon Islands, South Africa, Sri Lanka, Tanzania, Timor-Leste, Tonga, Tuvalu, Vanuatu, Vietnam and Zambia (as at January 2017): `https://scholarships.uq.edu.au/scholarship/australia-awards-scholarships`

1.4.3 Tutoring

The School of Mathematics and Physics teaches large first and second year courses in mathematics, physics and statistics. Tutorials and/or practicals are an important part of each of these courses. They are mostly conducted by casual part-time tutors who are usually advanced undergraduate or postgraduate students. In general — *we do not recommend that postgraduate coursework students tutor during your first semester at UQ.* Postgraduate coursework students who do well in their first semester of coursework will be strong applicants for some of our tutor roles.

Applications for tutoring positions with our School must be made each semester. Details on the application process can be found on our School website at:

https://teaching.smp.uq.edu.au/tutors/tutor-info.php
Applications must be made by the deadline (usually a few weeks before the start of each semester).

For general information on tutoring at UQ, go to: http://www.uq.edu.au/tutors .

For information about work and employment conditions for student visa holders, visit the Department of Immigration and Border Protection website: http://www.border.gov.au .

1.5 Other Key UQ Websites

- For information about the overall Master of Science (5244) Programme
  https://future-students.uq.edu.au/study/program/Master-of-Science-5244
  Note that this is the website that is replacing the older format
  https://www.uq.edu.au/study/program.html?acad_prog=5244
  https://my.uq.edu.au/programs-courses/program.html?acad_prog=5244#australian
  https://my.uq.edu.au/programs-courses/program.html?acad_prog=5244#international
- For a list of (Part A) Research and (Part B) Courses Required for the MSc (Physics) go to
  https://my.uq.edu.au/programs-courses/plan_display.html?acad_plan=PHYSCX5244&year=2018
- For an alternate list of PHYS7*** courses search via (see Chapter 4 for further information)
  https://my.uq.edu.au/programs-courses/search.html?keywords=PHYS7&searchType=all
- These will take you to the Course Information pages, eg.
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7042
  which you then connect through to the Official Course Profile pages, eg.
  http://www.courses.uq.edu.au/student_section_loader.php?section=1&profileId=85576
  which has specific information about each course (which is subject to change each semester).
- For general information about UQ and bureaucracy https://my.uq.edu.au/
- Student mySI-net system https://www.sinet.uq.edu.au
- Blackboard website system for courses: https://learn.uq.edu.au/
- Policies and Procedures are documented in the PPL http://ppl.app.uq.edu.au
- UQ Union, SHOC (Student Help On Campus) http://www.uqu.com.au/student-support
- Campus Maps via web are https://maps.uq.edu.au/st-lucia or downloadable:
  https://www.pf.uq.edu.au/maps/StLucia.pdf
- For public transport options/costs use the TransLink Journey Planner:
  https://jp.translink.com.au/plan-your-journey/journey-planner
- Government weather radar http://www.bom.gov.au/products/IDR662.loop.shtml
- Brisbane City (free) Early Warning Alerts https://ewa.brisbane.qld.gov.au/

1.6 Key People in 2018

For a list of SMP Academic Advisers see:
https://smp.uq.edu.au/current-students/academic-advisers

• The Physics Postgraduate Coursework Convenor is a Physics-based academic who assesses and advises postgraduate coursework students in the field of Physics. For 2018 this is:
Dr. Michael Bromley
Physics 4th year/Hons/GCertSc/GDipSc/MSc/MSc(study abroad) Convener
Room 329, Building 6 (Physics Annexe)
Phone: (+61) 07 3365 1869
Email: brom@physics.uq.edu.au

• The student administrative officer for all Physics postgraduate coursework students is:
Ms. Marie Grove
Student Administration Officer
Room 348, Building 67 (Priestley Building)
Phone: (+61) 07 3365 2673
Email: m.grove@smp.uq.edu.au

• Once enrolled, students should make enquiries with regard to office availability, setting up computer accounts, photocopying and printing facilities, directly with
Ms. Tara Massingham
Administration Officer-Physics
Room 324, Building 6 (Physics Annexe)
Phone: (+61) 07 3365 3424
Email: admin.physics@uq.edu.au

• The School of Mathematics and Physics Workplace Health and Safety Officer is:
Mr. John Cohen
Room 347, Building 67 (Priestley Building)
Phone: (+61) 07 3365 3807
Email: john.cohen@uq.edu.au

• The main ITS `https://its.uq.edu.au/` local technical/computer support is
Mr. Sam Zammit and co.
Room 306, Building 6 (Physics Annexe) → consultation times Tue/Thu between 2pm-3pm,
Phone: (+61) 07 3365 6000 → this is the ITS helpdesk phone number to log an urgent job,
ITS support: Login to `https://its.uq.edu.au/` → to log a job with ITS helpdesk,
or email help@its.uq.edu.au with "Attention Sam @ Physics" in the body of the email.

1.7 Key Dates in 2018

Due dates for International Student **applications** are (see Chapter 2 for links and details):

- To commence Sem 1 2018 - International applications *usually* due — **November 30 2017**
- To commence Sem 2 2018 - International applications *usually* due — **May 31 2018**
- To commence Sem 1 2019 - International applications *usually* due — **November 30 2018**

Due dates for Domestic Student **applications** are (see Chapter 2 for links and details):

- To commence Sem 1 2018 - Domestic applications *usually* due — **January 31 2018**
- To commence Sem 2 2018 - Domestic applications *usually* due — **June 30 2018**
- To commence Sem 1 2019 - Domestic applications *usually* due — **January 31 2019**

The official list of UQ dates for students at is the 'Student Matters Calendar'
`http://www.uq.edu.au/events/calendar_view.php?category_id=3`
(ignore the "Research Quarter" dates as these only apply to MPhil/PhD students).

They Key First Semester dates for MSc students are:

- Fri 26-01-2018 — Due date to enrol* for domestic students in Sem 1 (see Chapter 3.5)
- Mon 12-02-2018 - Fri 16-02-2018 — Orientation Week (O-Week - see Chapter 3.6)
  Tue 13-02-2018 — School of Mathematics & Physics O-Week Welcome (see Chapter 3.6)
  Wed 14-02-2018 — Market Day (10am-2pm — see Chapter 6.1)
- Fri 16-02-2018 — Due date to enrol* for international students in Sem 1 (see Chapter 3.5)
- Mon 19-02-2018 — Sem 1 Classes Commence (one week earlier than normal due to Commonwealth Games)
- Fri 02-03-2018 — Final date for addition of courses or alternation of enrolment (end of week 2)
- Fri 02-03-2018 — Due date for payment of Sem 1 tuition fees (end of week 2)
- Fri 30-03-2018 - Sun 15-04-2018 — Mid-semester break (two weeks due to Commonwealth Games)
- Sat 31-03-2018 — Sem 1 census date/last date to drop courses or cancel enrolment without financial liability
- Mon 30-04-2018 — Sem 1 last date to drop courses or cancel enrolment without academic penalty
- Fri 01-06-2018 — Sem 1 Classes End
- Mon 04-06-2018 - Fri 08-06-2018 — Revision period (one week)
- Fri 08-06-2018 — Sem 1 last date to withdraw from a course in mySI-net incurring financial liability and academic penalty
- Sat 09-06-2018 - Sat 23-06-2018 — Examination period (Final exams can be on the Saturdays)
- Wed 04-07-2018 — Sem 1 finalisation of grades (Course Grades Released)
- Mon 16-07-2018 - Fri 20-07-2018 — Graduations Period (for students completing Sem 1)

The Key Second Semester dates are:

- Fri 13-07-2018 — Due date to enrol* for domestic students in Sem 2 (see Chapter 3.5)
- Mon 16-07-2018 - Fri 20-07-2018 — Mid-year Orientation Week (O-Week - see Chapter 3.6)
  Tue 17-07-2018 — School of Mathematics & Physics O-Week Welcome (see Chapter 3.6)
  Wed 18-07-2018 — Market Day (10am-2pm — see Chapter 6.1)
- Fri 20-07-2018 — Due date to enrol* for international students in Sem 2 (see Chapter 3.5)
- Mon 23-07-2018 — Sem 2 Classes Commence
- Fri 03-08-2018 — Final date for addition of courses or alternation of enrolment (end of week 2)
- Fri 03-08-2018 — Due date for payment of Sem 2 tuition fees (end of week 2)

- Fri 31-08-2018 — Sem 2 census date/last date to drop courses or cancel enrolment without financial liability
- Sat 22-09-2018 - Mon 01-10-2018 — Mid-semester break (one week)
- Sun 30-09-2018 — Sem 2 last date to drop courses or cancel enrolment without academic penalty
- Fri 26-10-2018 — Sem 2 Classes End
- Mon 29-10-2018 - Fri 02-11-2018 — Revision period (one week)
- Fri 02-11-2018 — Sem 2 last date to withdraw from a course in mySI-net incurring financial liability and academic penalty
- Sat 03-11-2018 - Sat 17-11-2018 — Examination period (Final exams can be on the Saturdays)
- Wed 28-11-2018 — Sem 2 finalisation of grades (Course Grades Released)
- Mon 03-12-2018 - Fri 07-12-2018 — Graduations Period (for students completing Sem 2)

Note that no classes are scheduled on Saturdays, but mid-semester and final-exams may be scheduled on Saturdays — even on the final exam day, so **do not book flights home** before the official release of exam times (which occurs about a month before exams) If there are extenuating circumstances, it may be possible to undertake the exam remotely:
`https://my.uq.edu.au/information-and-services/manage-my-program/exams-and-assessment/off-campus-examinations`

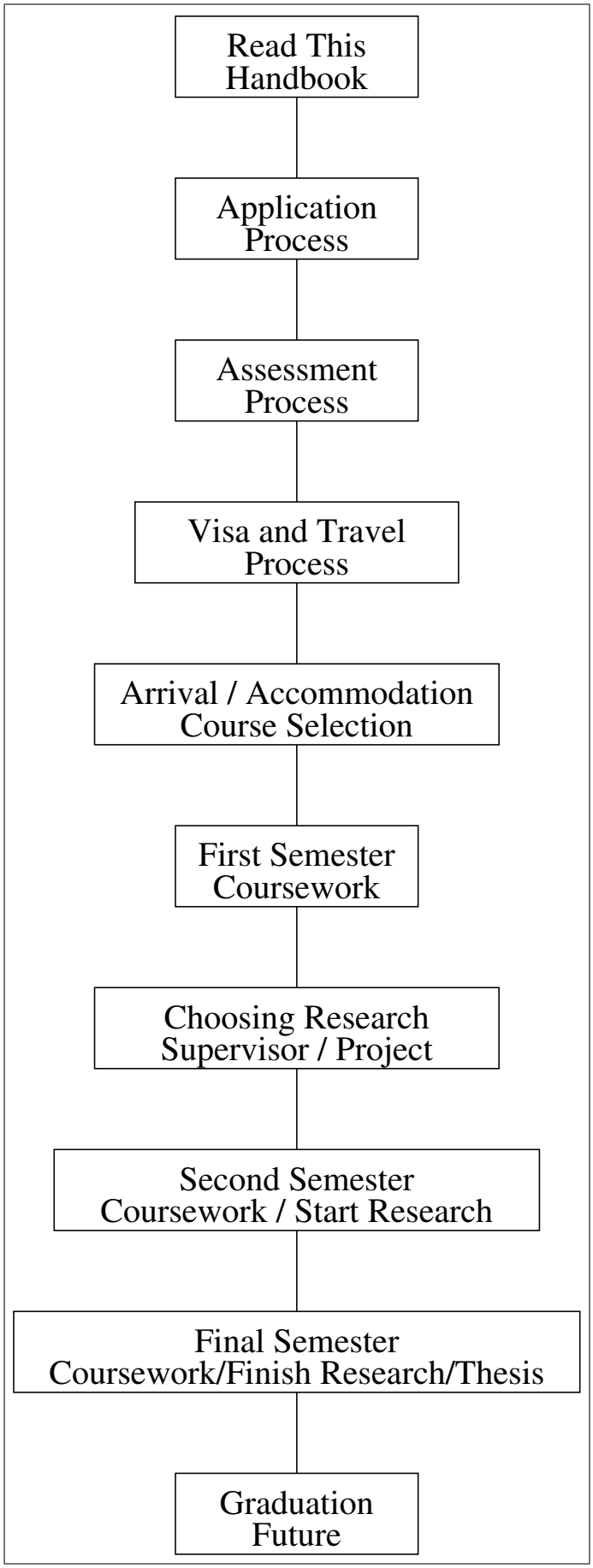
Public Holidays in QLD are listed `https://www.qld.gov.au/recreation/travel/holidays/public`

- Mon 01-01-2018 — New Year's Day public holiday
- Fri 26-01-2018 — Australia Day public holiday
- Fri 30-03-2018 — Good Friday public holiday
- Sat 31-03-2018 — Easter Saturday public holiday
- Sun 01-04-2018 — Easter Sunday public holiday
- Mon 02-04-2018 — Easter Monday public holiday
- Wed 25-04-2018 — ANZAC Day public holiday
- Mon 07-05-2018 — Labour Day public holiday
- Wed 15-08-2018 — Royal Queensland Show public holiday (Brisbane Area only)
- Mon 01-10-2018 — Queen's Birthday public holiday
- Tue 25-12-2018 — Christmas Day public holiday
- Wed 26-12-2018 — Boxing Day public holiday

and the university will be closed on those days. If the holiday itself falls on a weekend then generally the Monday after is considered the day-off. Note also that the University **shuts down** over Christmas - New Year period.

1.8 Application → Graduation Process Outline

The rest of this handbook describes the following stages in your programme:



Chapter 2

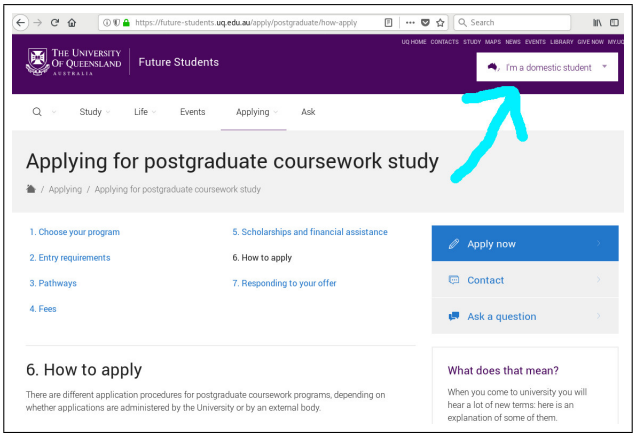
Application and Our Evaluation Process

In this Chapter we give a brief overview of the application process, and give some insight into the evaluation process. This will also help you decide whether you are prepared for entry into our challenging UQ Master of Science (Physics) Programme.

2.1 Application Process

UQ operates with 2 semesters every year (with a smaller Summer Semester - that generally is an extended holiday period for Masters students). You are able to apply to commence for either Semester, and the closing dates for applications are listed in Section 1.7.

To see application instructions go directly to either:
`https://future-students.uq.edu.au/apply/postgraduate/how-apply`
`https://future-students.uq.edu.au/apply/postgraduate/international/how-apply`
these can be switched between by clicking on the drop-down menu "I'm a ... student" as below:



The application information and conditions for the Master of Science (5244) Programme is at
`https://future-students.uq.edu.au/study/program/Master-of-Science-5244`
(again, the Domestic or International student information can be switched between by clicking on the drop-down menu "I'm a ... student" near the top of the webpage.)

Note that the Future Students website `https://future-students.uq.edu.au/study` also uses the drop-down menu near the top of the webpage for students to select whether they are domestic or international in your search for information.

The 'Student Matters Calendar' also lists official dates for the current year:
`http://www.uq.edu.au/events/calendar_view.php?category_id=3`

2.1.1 Closing Dates for International Students

The closing date for the Master of Science (international students) applications:
• To commence in semester 1 - are *usually* due **November 30 of the previous year**.
• To commence in semester 2 - are *usually* due **May 31 of the year of commencement**.
Those dates are listed for postgraduate coursework applications (international students) at
`https://future-students.uq.edu.au/apply/postgraduate/international/how-apply`

By *usually* we mean that late applications might be considered, but this can not be guaranteed. You must leave enough time for the University to process your application, to issue an offer, and for you to organise visa/travel, etc. Remember also that in Australia our main (summer) holidays are over the Christmas through New Year when the university shuts-down and most people take extended holidays between mid-December through mid-January.

International students can choose to apply through an international education agent
`https://future-students.uq.edu.au/find-approved-uq-agent-your-country`
Note that international students *do not need* to apply through an agent:
`https://docs.education.gov.au/system/files/doc/other/esosstudentfactsheetv3.pdf`
ie. you can apply directly via `https://apply.uq.edu.au/` .

2.1.2 Closing Dates for Domestic Students

The closing dates are on the web for the Master of Science
`https://future-students.uq.edu.au/study/program/Master-of-Science-5244`
(Again under the 'How to apply' heading and with the drop-down menu at the top of the page set to "I'm a Domestic student" is as follows):
• To commence study in semester 1 - January 31 of the year of commencement.
• To commence study in semester 2 - June 30 of the year of commencement.

Note that late applications might be considered, but this can not be guaranteed. You must leave enough time for the University to process your application and to issue an offer.

You can apply directly via `https://apply.uq.edu.au/` .

2.1.3 Evaluation Process

The application for domestic students then goes via UQ's Faculty of Science, whilst for international students, this is handled by UQ International. Here are some of the entry requirement/criteria that are advertised:

- Entry requirements/prerequisites: Bachelor Degree with Physics major.
- Recommended UQ (or equivalent) GPA of 5.5 or above on a 7 point scale.

These are discussed separately below.

Entry requirements — Bachelor Degree with Physics major

What if you do not have that specific degree? — Other degrees will be assessed on a case-by-case basis. Generally we require demonstration that an applicant meets our Physics 'discipline requirements'. This means that we need to see evidence of that you have done well in core first, second, and enough third year physics courses, such as Mechanics, Thermal Physics, Quantum Physics, Fields (Electromagnetics and Optics).
Your first semester doing only coursework will be a good opportunity to fill in any gaps.

What if you have not completed your last semester / graduated yet? — You can still apply, and will be assessed as per your current academic transcript. If your current GPA and courses meet the discipline requirements then you may be offered entry subject to successful completion of your degree, whilst maintaining your GPA.

GPA requirements — recommended GPA of 5.5 or above on a 7 point scale

How do we calculate this? — by converting your grades from your home institution's scheme. The convention we use for this is our usual UQ system: 7 = (> 85%), 6 = (> 75%), 5 = (> 65%), 4 = (> 50%), whilst the failing grades are 3 = (> 45%), 2 = (> 20%), 1 = (> 0%).

Note that we look closely at your grades for second and third year physics-specific courses.

If your GPA is around the 5.5 mark we may choose to give you a 'conditional offer'. This requires you to first complete the 1-semester Graduate Certificate in Science (GCSc Physics), and upon the successful completion of 4 courses (#8 units) with a GPA of 5.5 (or above) you will be transferred to the MSc (Physics).

2.1.4 English Language Proficency

All of our courses are in (technical) English, and require English Proficiency:
`https://future-students.uq.edu.au/study/program/Master-of-Science-5244`
(click on the drop-down menu to "I'm an international student" near the top of the webpage)
We require IELTS overall 6.5; reading 6; writing 6; speaking 6; listening 6.
For other English Language Proficiency Tests and Scores approved for UQ, view the policy:
`https://future-students.uq.edu.au/applying/english-language-proficiency-requirements`

If you meet the academic entry requirements for our MSc (Physics) program, but need further English-language training, you can apply for a package offer that includes:
(a) English language studies at Institute of Continuing and TESOL Education (ICTE-UQ)
`https://icte.uq.edu.au/`
(b) and a conditional offer of admission to the MSc (Physics).
For all ICTE-UQ courses, including the Bridging English Program (BEP), the deadline to apply, accept your offer and pay tuition fees, is four weeks before the course start date.

2.2 Research Area

You do not need to have a research supervisor organised before you arrive at UQ! (unlike our commencing Honours, MPhil, or PhD Students). We do not recommend that you contact potential supervisors until after you have completed your first semester of courses and received your grades.

Before applying to our programme, however, we do recommend that you carefully look at the list of individual research projects via: `https://smp.uq.edu.au/research/projects`
which will give you an overall impression of the various types of experimental, theoretical, and computational projects that UQ Physics offers. You should have a potential supervisors/projects in mind before you apply to UQ.

Chapter 3

Before you arrive / When you arrive

See the website https://my.uq.edu.au/ . Here we add some discussion and specific links.

3.1 International Students — Visa Process

You will be sent information on this process, but you can also find some information at:
https://my.uq.edu.au/information-and-services/manage-my-details/student-visas
Once you are at UQ can find on-campus help at the UQ Union SHOC (Student Help On Campus):
http://www.uqu.com.au/migration

An International Student Advisor (ISA) can help you to understand and manage the requirements and conditions of your student visa, however, they cannot provide specific migration or visa advice or assistance with a visa application: http://www.uq.edu.au/student-services/visa .
Only the Department of Immigration and Border Protection or a registered migration agent can provide advice and specific guidance on visa and migration matters. There is a registered migration agent available at UQ Union's Student Help On Campus (SHOC) who provides free migration and visa advice to UQ students. You normally need to book a couple of weeks in advance as appointments are in high demand. Please note that the SHOC migration agent cannot provide assistance with applications for permanent residency.

The Migration Agents Registry Authority maintains a list of registered migration agents in Australia. Be aware these agents generally charge a fee for service. If you do not have the capacity to pay for a migration agent, the Refugee and Immigration Legal Service (RAILS) http://www.rails.org.au/ may be able to assist. RAILS run evening advice sessions where immigration law advice is provided by volunteer migration agents.

3.2 International Students — Healthcare and Insurance

Overseas Student Health Cover (OSHC) at UQ (for Australian Students) is discussed at:
https://future-students.uq.edu.au/international/health-insurance
and is preferrably provided through Allianz: https://allianzassistancehealth.com.au/en/ .

OSHC Worldcare card holders can get medical advice by phoning the 24-hour student assistance line Phone (free-call in Australia) 1800 814 781.

3.3 UQ Fees and Payments

The deadline for payment of fees is listed in the calendar
http://www.uq.edu.au/events/calendar_view.php?category_id=3
as the end of week 2 of each semester.

For official information about the UQ requirements for you (or your sponsor) see:
https://my.uq.edu.au/starting-at-uq/student-finances and also
https://my.uq.edu.au/information-and-services/manage-my-program/fees-payments-and-refunds

3.4 Travel, Accommodation & Lodging

Aim to arrive in Brisbane at least a week before Orientation Week so that you can settle in and concentrate on your studies once the teaching commences. See:
https://future-students.uq.edu.au/daily-living

Flights are generally more expensive during primary/secondary school holiday periods,
http://education.qld.gov.au/public_media/calendar/holidays.html
Note that other Australian states holiday periods may be different to Queensland.

3.4.1 St Lucia Campus

Campus Maps via web are https://maps.uq.edu.au/st-lucia or downloadable:
https://www.pf.uq.edu.au/maps/StLucia.pdf
• Physics Staff and Students are generally in Building 6 (Physics Annexe) or Building 7 (Parnell).
• The offices for MSc Physics students are located on Building 6 (Physics Annexe) - Level 3.
• Lectures and tutorials are held in various locations around campus.

For public transport options/costs use the TransLink Journey Planner:
https://jp.translink.com.au/plan-your-journey/journey-planner
Note that the 3 main on-campus transport hubs are:
• The "UQ Ferry Terminal" (to catch the CityCat Ferry up the river)
• The "UQ Lakes Station" Bus Terminal for buses heading to the southside of the river:
this connects over the Eleanor Schonell Bridge (a "Green Bridge" → buses, bicycles, people) through the busway "Boggo Road Station", which is alongside the "Park Road" Train Station (with connection to Airport/City/Gold Coast trains). The busway also connects onto Southbank/City and more.
• The "UQ Chancellors Place" Bus Terminal (for buses through St Lucia to Indooroopilly/Toowong with connections at their respective train stations)

3.5 Enrolment (the US-spelling is 'enrollment')

What is enrolling? — Enrolling is the process of registering the courses you intend to study for a single semester: https://my.uq.edu.au/information-and-services/manage-my-program/classes-timetables-and-coursework/enrolment-and-class-sign

Before you can enrol in courses at UQ, you must have already:
• Applied for admission to the University.
• If you are successful, you will be made an offer.
• Accept your offer.
After you have accepted your offer, you are eligible to enrol in courses.

It is your responsibility to choose suitable courses and to enrol each semester. You should enrol in at least one course by the due date (see Chapter 1.7). However, before you can enrol, you must discuss your selections with the Physics Postgraduate Coursework Convenor (see Chapter 4 for information on this process).

3.5.1 Last day for enrolment

There are different dates listed in the Student Matters calendar:
`http://www.uq.edu.au/events/calendar_view.php?category_id=3`
depending on whether you are a domestic or international student. It is *strongly recommended* that before these dates you have already met with the Physics Postgraduate Coursework Convenor, and have consequently sent them an email with your course requests.

Note that the relatively early due date for domestic student enrolment means that a published course profile with the graduate course code may not yet exist and perhaps not even the co-taught undergraduate course profile (depending on how many students have already enrolled). Thus, there is some flexibility with domestic student enrolment.

However, the earlier that students enrol, the better — it gives our course coordinators and lecturers more time to plan for the number of postgraduate students that they will have.

3.6 Arriving in Brisbane

It is recommended that you arrive before classes start in time to attend O-Week — Orientation Week `https://orientation.uq.edu.au/` For a checklist and info see:
`https://my.uq.edu.au/starting-at-uq/prepare-for-semester/`

Upon arrival in Australia, `http://www.uq.edu.au/student-services/living-australia`
A rough timeline to follow once you are able to get to the campus:

1. UQ runs two compulsory workshops that are designed to help you make a smooth transition to life in Brisbane and studying at UQ:

   - Getting Started (within 3 days of arrival)
   - Health and Safety workshop

2. When students are officially enrolled at UQ (even before arrival) you are able to:

   - with your student number (without the 8th numerical digit!) `s1234567` login to UQ systems (you can do this even before arriving on campus)
   - setup your official UQ student email account - e.g. `student.uniquename@uqconnect.edu.au` `https://its.uq.edu.au/services/student-email` which is used for all official email from the University. **You will need to regularly check for new email**. Make sure it is working - you are welcome to send a hello message to the Physics Postgraduate Coursework Convenor.
   - obtain a student card from Prentice Building (42), next to the Physics Annexe:
     `https://my.uq.edu.au/starting-at-uq/prepare-for-semester/student-id-cards`
     acts as card for after-hours entrance, and can borrow books at all University libraries.

3. When you first visit campus see that Physics Administrative Officer (best to make an appointment via your UQ student email). They will:

   - Welcome you to UQ!
   - Show you to your desk/computer in a shared office (if space permits).
   - Perform the Local Site Induction:
     Shown the location of emergency equipment, exits & evacuation meeting points,
     and introduced to local WHSC, HSR, Floor Wardens, First-Aid Officer.

- Show you the mail/photocopy/printer/stationary room and how to use them.

4. Once you can log into the UQ computer system on your desk (or from home!) you are required to perform Online Safety Training: `http://www.uq.edu.au/ohs/online-ohs-training-modules`

- "General Workplace Safety Training" module
- "Annual Fire Safety Training" module.

(The list for students are: `http://www.uq.edu.au/ohs/?page=168925`)

5. Attend various events during O-week, in particular the SMP Postgraduate Student Welcome Session.

6. Students should arrange to meet the Physics Postgraduate Coursework Convenor during the first few days on campus (email to arrange an appointment). In addition to answering any questions, this meeting will help design your overall program and decide on the courses you will enrol in for your first semester, whilst making a tentative plan for the second and third semesters.

Following the meeting, email your list of courses to the Physics Postgraduate Coursework Convenor who then forwards with their approval to SMP Student Administration Office. You will then receive an email from the School Student Administration Office stating that your course selection has been officially approved (this process may take a day or two). Once you have approval by email, you can then enrol in your courses via mySI-net system `https://www.sinet.uq.edu.au` .

Note enrolment in postgraduate level (PHYS7****) courses is not possible without the approvals, but confusingly, mySI-net will allow postgraduate students to enrol themselves in undergraduate courses. Unless undergraduate courses were requested/approved by Physics Postgraduate Coursework Convenor, such enrolments will be detected and cancelled at a later stage.

3.7 (Physical) Mail

The Physics Mailroom is in 6-320. Mail, including personal packages, can be sent to students and it will be put into the A-Z mailboxes:

MSc Physics Student - Student Name
C/- Physics Administration Officer
School of Mathematics and Physics
The University of Queensland
Brisbane, QLD, 4072, Australia.

Chapter 4

Coursework

The Master of Science (MSc) (#24 units of study) is 3 semesters of full-time study (or the equivalent part-time). This combines the #16 units of coursework required for the GDipSc, together with #8 units of project work discussed in the next Chapter 5. Students need to be familiar with the rules governing their degree, as it is their responsibility to fulfill requirements, meet deadlines etc.

People taking postgraduate coursework degrees have many different backgrounds and have a range of strengths and interests. You must discuss your study plans (either in person or via email prior to arrival) with your Physics Postgraduate Coursework Convenor, as they are required to approve every course you plan to study, before you attempt to enrol.

4.1 Part B — List of Advanced Postgraduate Courses in Physics

The courses that can be taken are listed as Part B:
`https://my.uq.edu.au/programs-courses/plan_display.html?acad_plan=PHYSCX5244`
(Part A — Research units are discussed further in next Chapter 5).

The postgraduate courses in Physics are also taken by students studying both for BSc and BSc(Hons) degrees, and for other postgraduate coursework degrees (GradCertSc, GradDipSc). The courses have different course codes for honours and postgraduate coursework students: Level PHYS3xxx for 3rd-year level, PHYS4xxx or PHYS6xxx for honours level, and PHYS7xxx for postgraduate coursework. Usually students attend the same lectures. The assessment in the postgraduate version of the course is more involved and/or rigorous.

Semester 1 Courses (Co-taught with third-year courses):

- PHYS7042 Quantum Physics (PHYS3040)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7042`
- PHYS7073 Computational Physics (PHYS3071)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7073`
- PHYS7250 Fields in Physics (PHYS3051)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7250`

Semester 2 Courses (Co-taught with third-year courses):

- PHYS7021 Statistical Mechanics (PHYS3020)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7021`

- PHYS7080 Astrophysics (PHYS3080 Extragalactic Astrophysics & Cosmology)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7080
- PHYS7825 Experimental Design (PHYS3825 Advanced Experimental Skills)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7825
- PHYS7900 Perspectives in Physics Research (PHYS3900)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7900
- MATH7133 Algebraic Methods of Mathematical Physics (MATH3103)
  https://my.uq.edu.au/programs-courses/course.html?course_code=MATH7133

Semester 1 Courses (Co-taught with fourth-year courses):

- PHYS7033 Condensed Matter Physics: Electronic properties of crystals (PHYS4030)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7033
- PHYS7241 Advanced Quantum Theory (PHYS4040)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7241
- MATH7105 General Relativity (MATH7105)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7105

Semester 2 Courses (Co-taught with fourth-year courses):

- PHYS7055 Laser Physics & Quantum Optics (PHYS4055)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7055
- PHYS7270 Advanced Computational Physics (PHYS4070)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7270
- MATH7144 Advanced Hamiltonian Dynamics & Chaos (MATH4104 — odd years only)
  https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7144

4.1.1 Typical Course Selections

Some typical course plans are outlined below:

- Student Commencing Semester 1 — A student with a physics major who needs some background before tackling advanced courses in final semester:

  First Semester — Semester 1
  → PHYS7042 Quantum Physics (PHYS3040)
  → PHYS7073 Computational Physics (PHYS3071)
  → PHYS7250 Fields in Physics (PHYS3051)
  → MATH7000 Calculus & Linear Algebra II (MATH2000)

  Second Semester — Semester 2
  → PHYS7021 Statistical Mechanics (PHYS3020)
  → PHYS7900 Perspectives in Physics Research (PHYS3900)
  → PHYS7722 Research Project A (#4 in one semester)

  Third Semester — Semester 1
  → PHYS7241 Advanced Quantum Theory (PHYS4040)
  → MATH7105 General Relativity (MATH7105)
  → PHYS7723 Research Project B (#4 in one semester)

- Student Commencing Semester 2 — A student with a physics major who needs some background before tackling advanced courses in final semester:

  First Semester — Semester 2
  → PHYS7021 Statistical Mechanics (PHYS3020)
  → PHYS7080 Astrophysics (PHYS3080 Extragalactic Astrophysics & Cosmology)
  → PHYS7825 Experimental Design (PHYS3825 Advanced Experimental Skills)
  → PHYS7900 Perspectives in Physics Research (PHYS3900)

  Second Semester — Semester 1
  → PHYS7042 Quantum Physics (PHYS3040)
  → PHYS7073 Computational Physics (PHYS3071)
  → PHYS7722 Research Project A (#4 in one semester)

  Third Semester — Semester 2
  → PHYS7055 Laser Physics & Quantum Optics (PHYS4055)
  → PHYS7270 Advanced Computational Physics (PHYS4070)
  → PHYS7723 Research Project B (#4 in one semester)

- Student Commencing Semester 1 — A student with a strong background in physics who wishes to continue to higher-level (MPhil or PhD) studies could undertake a MSc in Physics by tackling our most advanced set of courses that our BSc (Hons) fourth-year students take:

  First Semester — Semester 1
  → PHYS7042 Quantum Physics (PHYS3040)
  → PHYS7073 Computational Physics (PHYS3071)
  → PHYS7250 Fields in Physics (PHYS3051)
  → MATH7105 General Relativity (MATH7105)

  Second Semester — Semester 2
  → PHYS7055 Laser Physics & Quantum Optics (PHYS4055)
  → PHYS7270 Advanced Computational Physics (PHYS4070)
  → PHYS7744 Extended Research Project (#8 over two semesters)

  Third Semester — Semester 1
  → PHYS7033 Condensed Matter Physics: Electronic properties of crystals (PHYS4030)
  → PHYS7241 Advanced Quantum Theory (PHYS4040)
  → PHYS7744 Extended Research Project (#8 over two semesters)

- Student Commencing Semester 2 — A student with a strong background in physics who wishes to continue to higher-level (MPhil or PhD) studies could undertake a MSc in Physics by tackling our most advanced set of courses that our BSc (Hons) fourth-year students take:

  First Semester — Semester 2
  → PHYS7021 Statistical Mechanics (PHYS3020)
  → PHYS7080 Astrophysics (PHYS3080 Extragalactic Astrophysics & Cosmology)
  → PHYS7825 Experimental Design (PHYS3825 Advanced Experimental Skills)
  → PHYS7900 Perspectives in Physics Research (PHYS3900)

  Second Semester — Semester 1
  → PHYS7241 Advanced Quantum Theory (PHYS4040)

→ MATH7105 General Relativity (MATH7105)
→ PHYS7743 Extended Research Project (#8 over two semesters)

Third Semester — Semester 2
→ PHYS7055 Laser Physics & Quantum Optics (PHYS4055)
→ PHYS7270 Advanced Computational Physics (PHYS4070)
→ PHYS7743 Extended Research Project (#8 over two semesters)

4.1.2 Coursework Time-Commitments and Time-Management

Four courses (#8 units) per semester is the usual coursework load, ie. each course is worth #2 units. For each course there is a convention of around 3-5 hours of weekly contact time (including lectures, tutorials, labs). Note that UQ also considers (#6 units) per semester to be "full-time".

Each UQ #2 course requires roughly 10 hours total per week for the 13 weeks during the semester (including contact hours). You then have a one week Revision Period where no coursework assessment is due, before the last two weeks scheduled for final exams.

The usual amount of Class contact is listed on each course page eg. some common ones are: "4C" means 4 hours of weekly class contact time, eg. that could be lectures and/or tutorials, "2L1T2P" specifically means weekly 2 hours of lectures, 1 hour of tutorial, 2 hours of practical. Thus you will generally need to do several hours of outside class reading/homework each week.

The assessment schedule for each course is given in the course profiles, which is generally available by O-week. It is worth reviewing the schedules before your classes commence - if there are serious clashes between your different course deadlines raise this with the Physics Postgraduate Coursework Convenor, who can then discuss it with the Course Coordinators.

Note that some postgraduate courses also have mid-semester exams, that are either held in class-time, or for large classes on a Saturday
`https://my.uq.edu.au/information-and-services/manage-my-program/exams-and-assessment/exam-timetables-and-venues`

To improve your time-management skills you can attend UQ learning workshops:
`http://www.uq.edu.au/student-services/learning/workshops`
and speak to a Learning Advisor, who can provide practical study advice:
`http://www.uq.edu.au/student-services/learning/appointments`

4.1.3 Coursework Prerequisites

At UQ Prerequisites are the courses that must have been previously passed to be able to enrol in a particular course. Mastery of this prerequisite knowledge will be assumed by the lecturer/s and tutor/s. A prerequisite course provides the appropriate foundation knowledge in order to progress to the next course. Students are required to be aware of any specified prerequisites as **UQ enrolment systems do not check to see if you have completed any of the prerequisite courses**.

If you are unsure about whether you have the prerequisite knowledge for a course, especially for students who did similar courses at other universities/countries, you should raise this with the Physics Postgraduate Coursework Convenor when first planning your course enrolments. One way of seeing what was specifically taught in previous years (prerequisite) courses is to login to Blackboard (see Section 4.4.1). Another way of seeing what was expected at the end of each (prerequisite) course is to download the exams of the prerequisite UQ course/s (see Chapter 4.4.3).

You are able to request to enrol in courses that you may not have the specific prerequisite knowledge for - while the Physics Postgraduate Coursework Convenor and Course Coordinators may strongly advise against doing so, they will allow you to enrol in the courses that you request.

How much time to spend preparing before classes start? If you have already (recently) done the course prerequisites then you should already be well-prepared.

4.2 List of Additional Courses

Note that you are also allowed **up to #4 units from late-year courses**, ie. 2 courses, approved by the Faculty of Science Executive Dean. The request must be made via email to the Physics Postgraduate Coursework Convenor including:
(a) (if applicable) a list of all UQ courses that you have taken so far, and their grades
(b) list of courses that you plan to study to finish your MSc
(c) a brief justification for your choice/s,
who will then forward your request (along with a recommendation) to the Student Administration Officer, who then forwards it to the Executive Dean for consideration.

Some suggestions that MSc Physics / BSc (Hons) students have taken are:

Summer Semester Courses (Co-taught with second-year courses):

- MATH7000 Calculus & Linear Algebra II (MATH2000)

Semester 1 Courses (Co-taught with second-year courses):

- COSC7500 Numerical Methods in Computational Science (COSC2500)
- MATH7000 Calculus & Linear Algebra II (MATH2000)

Semester 2 Courses (Co-taught with second-year courses):

- MATH7000 Calculus & Linear Algebra II (MATH2000)

Semester 1 Courses (third-year courses - no Masters additional component):

- COSC3000 Visualization, Computer Graphics & Data Analysis (COSC3000)
- MATH3101 Bifurcation and Chaos (MATH3101)
- MATH3201 Scientific Computing: Advanced Techniques and Applications (MATH3201)
- MATH3401 Complex Analysis (MATH3401)

Semester 2 Courses (third-year courses - no Masters additional component):

- MATH3102 Methods & Models of Applied Mathematics (MATH3102)
- MATH3404 Optimisation Theory (MATH3404)

Semester 1 Courses (Co-taught with third-year courses):

- None suggested

Semester 2 Courses (Co-taught with third-year courses):

- COSC7502 High-Performance Computing (COSC3500)

Semester 1 Courses (Co-taught with fourth-year courses):

- None suggested

Semester 2 Courses (Co-taught with fourth-year courses):

- MATH7106 Advanced Mathematical Methods & Models A (MATH4106 — even years only)
- MATH7107 Advanced Mathematical Methods & Models B (MATH4107 — odd years only)
- MATH7201 Applications of Scientific Computing (MATH4201 — odd years only)
- MATH7301 Advanced Algebra (MATH4301 — odd years only)

4.3 Special Topics Courses in Physics

The aim of our MSc program is to give students from a diverse range of backgrounds access to the most recent advances in physics. This may include enrolling in a Masters-level Special Topics Course, and doing coursework-based activities tailored for the student. Physics has two course codes reserved for two different courses (that can run in either semester):

- PHYS7002 or PHYS7004 — Special Topics in Physics

Such arrangements need special considerations and approvals before enrolment. The process that needs to be completed before the semester commences is:

(a) student approaches a lecturer who might be willing to teach a Masters-level course,
(b) student discusses idea with the Physics Postgraduate Coursework Convenor,
(c) the lecturer discusses the workload consequences with the Head of Physics,
(d) the lecturer then develops a 1-2 page summary for the course, including a plan for assessment,
(e) the Physics Postgraduate Coursework Convenor reviews plan and approves the student enrolment by emailing the Student Administration Officer.

The best semester to do this is generally in your last semester as you have had time to interact with several of our lecturers and researchers. The typical students who take a Special Topics Course are the ones who as part of their undergraduate degree already took advanced courses that they can't repeat at UQ, and are looking for a more specialised learning experience.

Note that the recommended way to achieve an additional specialised *research* experience is to undertake a #2 unit research course (PHYS7712 or PHYS7713). This can potentially be in addition to the mandated #8 units. This is discussed in Chapter 5.6.

4.4 Course Systems at UQ

The assessment for postgraduate courses and projects is outlined in the "Course Profiles" which are available via the course links such as
`https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7073`
or via `https://future-students.uq.edu.au/study/` .
Note that these change from year-to-year so make sure you read these at the start of semester so that you are aware of what assessment is due and when (this is also true for research projects).

4.4.1 Blackboard for course materials

UQ uses the proprietary Blackboard website system for courses: `https://learn.uq.edu.au/` . Once you are assigned a UQ student login, **you have access to some of the previous course materials**! As preparation before starting a course (or even for help choosing) go to the "Course Search" and enter the course code eg. PHYS3071 (PHYS7073 might not come up since it is linked together to the undergraduate version PHYS3071). Then click on "Learning Resources" to see lecture notes.

4.4.2 Grades

Your grades as you proceed through a course will be incrementally posted to Blackboard's Grade Centre.

At UQ your final grade is calculated as a percentage that is converted and only published as a final grade between 1-7 (as integers only):
`https://my.uq.edu.au/information-and-services/manage-my-program/exams-and-assessment/final-grades`
For information about other grade codes see:
`http://ppl.app.uq.edu.au/content/3.10.07-grading-system`

The convention at UQ is that 7 = (> 85%), 6 = (> 75%), 5 = (> 65%), 4 = (> 50%), whilst the failing grades are 3 = (> 45%), 2 = (> 20%), 1 = (> 0%). This, however, may be different for each course. The details are specified in each individual Course Profile - See Section 5. Assessment - and scroll-down to Section 5.2 Course Grading.

Note that there can also be various **hurdles** implemented in different courses:
`http://ppl.app.uq.edu.au/content/3.10.02-assessment#Procedures`
The goal of these is generally to ensure that students pass enough of ID verified assessment to maintain academic integrity.

4.4.3 Previous Exams

UQ has a policy that all previous exams are to be made available to UQ students. Most of these are downloadable from the library:
`https://web.library.uq.edu.au/library-services/students/past-exam-papers`
(you have access to these once you are enrolled as a UQ student). Before you request permission to enrol in a specific course it is recommended that download the exams of the prerequisite UQ course/s and make sure that you are able to do them!

If your course runs exams that are administered by the School, these may not be in the UQ Central system, then you can request access to the previous exams by contacting the Physics Postgraduate Coursework Convenor who can then liase between you and the relevant Course Coordinator.

4.4.4 Extensions for an Assessment item

If you miss a (non-exam) assessment item in a course due to illness, difficult personal circumstances, or sporting commitments at a state, national or international level you need to fill out the *Application for Extension of Progressive Assessment*:
`http://www.uq.edu.au/myadvisor/forms/exams/progressive-assessment-extension.pdf`
and attach it and supporting documentation before the assessment due date via email to the Course Coordinator. If the exceptional circumstances are such that the student cannot reasonably be expected to have complied with these conditions, a case should also be made as to why these conditions could not be met.

Medical grounds: in Australia you can attend a Doctor called a General Practitioner (GP) and request a medical certificate. You can do this on St Lucia Campus at the General Practice
`http://www.uq.edu.au/healthservice`
or at any one of the other "Medical Centres" around Brisbane, eg.
`https://www.uqhealthcare.org.au/` in Annerley,
`https://www.smartclinics.com.au/` in Toowong, West End, Annerley, etc.
The extension date that you request should be consistent with the date in the medical certificate.

(Other) Exceptional circumstances: Applications for extension on the grounds of exceptional circumstances are also considered. For information about what should be submitted as evidence/supporting documentation please contact the Physics Postgraduate Coursework Convenor.

Outcome of application: Students will be advised of the outcome of their application via their student email.

4.4.5 Deferred Exams

A deferred examination may be awarded if you miss an exam (mid-semester or final) due to illness, difficult personal circumstances, or sporting commitments at a state, national or international level. You must apply for deferred exams promptly, within 5 calendar days of the exam for deferred exams:
`https://my.uq.edu.au/information-and-services/manage-my-program/exams-and-assessment/deferring-exam`

The rules for deferred examinations are at:
`http://ppl.app.uq.edu.au/content/3.10.11-examinations`
`https://my.uq.edu.au/information-and-services/manage-my-program/exams-and-assessment`

IMPORTANT: If you are sick on the day of a final exam, do not attempt to attend the exam!

4.4.6 Supplementary Assessment

Supplementary assessment for a postgraduate course may only be awarded for a single course in which a student receives a published course grade of 3 if that course is the final course required to complete the program. See the specific caveat at:
`https://ppl.app.uq.edu.au/content/3.10.09-supplementary-assessment`
ie. in the final semester of a postgraduate program when a higher grade would complete your degree.

You must apply for supplementary assessment promptly, within 5 calendar days of the release of results. The full rules may be found at:
`https://my.uq.edu.au/information-and-services/manage-my-program/exams-and-assessment/supplementary-assessment`
Note that Passing the Supplementary Assessment will give a grade of "3S4" on your transcript.

4.4.7 Plagiarism in either Coursework or Research

Academic Integrity — It is the University's task to encourage ethical scholarship and to inform students and staff about the institutional standards of academic behaviour expected of them in learning, teaching and research. Students have a responsibility to maintain the highest standards of academic integrity in their work. Students must not cheat in examinations or other forms of assessment and must ensure they do not plagiarise.

Plagiarism — The University has adopted the following definition of plagiarism:
Plagiarism is the act of misrepresenting as one's own original work the ideas, interpretations, words or creative works of another. These include published and unpublished documents, designs, music, sounds, images, photographs, computer codes and ideas gained through working in a group. These ideas, interpretations, words or works may be found in print and/or electronic media.

Students are encouraged to read the UQ Student Integrity and Misconduct policy:
`http://ppl.app.uq.edu.au/content/3.60.04-student-integrity-and-misconduct`
which makes a comprehensive statement about the University's approach to plagiarism, including the approved use of plagiarism detection software, the consequences of plagiarism and the principles associated with preventing plagiarism.

Lecturers and tutors are **required to report** all suspected cases of plagiarism directly to the School of Mathematics and Physics' Chair of Teaching and Learning Committee who then oversees a misconduct investigation that involves meetings with the Head of School. There are various avenues of academic punishment depending on the severity of the case.

4.5 Changing Courses / Withdrawal

You must be aware of the 4 census dates (spefically see Chapter 1.7) in order of severity:

- Final date for **addition of courses** or alternation of enrolment (*end of week 2*). If in the first 2 weeks of the course you find that you are unexpectedly struggling with a specific course (or not interested), urgently meet first with the Course Coordinator then the Physics Postgraduate Coursework Convenor. This gives you a window of opportunity to gain approval to add/remove course enrolments by the deadline. More drastically, you could even change programs out of the MSc (Physics) without penalty.

- Census date/last date to **drop courses** or cancel enrolment without financial liability (*end of week 6*, before mid-semester break). You can Financial liability means that if you are enrolled after the census date you have to pay for that course.

- Last date to **drop courses** or cancel enrolment without academic penalty (*around week 9*) Academic penalty means that if you are enrolled after this date, this course will be marked onto your official UQ academic transcript.

- Last date to withdraw from a course in mySI-net incurring financial liability and academic penalty (*before exam period starts*). If you withdraw before this date you will be given a 'W' on your official UQ academic transcript, ie. any grade that you have received so far in the course won't be considered.

If you are contemplating any of these options talk with the Physics Postgraduate Coursework Convenor first.

4.6 Overloading or Underloading (Over-enrolment or Under-enrolment)

Over-enrolment (overloading) means taking more than #8 units in a semester. In Semester 1 or Semester 2 you can take #10 units if your GPA was 4.5 or above in your most recent semester of full-time study - according to the rules:
`https://my.uq.edu.au/node/200/3#3` However, **we strongly recommend that MSc (Physics) students never overload**. The reason is that our advanced courses and research projects are already demanding enough time-wise. You are also still limited to #24 units total over your degree.

Under-enrolment (underloading) is also possible. **#6 units is also considered full-time by UQ**, whilst it is also possible to switch to part-time and do #4 or #2 (which many of our Domestic students do due to other work commitments).

4.7 If you fail a course

If you fail a course, there are several consequences:
`https://my.uq.edu.au/information-and-services/manage-my-program/academic-progress-and-fina`
`failing-course`
Schedule a meeting with Physics Postgraduate Coursework Convenor as soon as possible after grades are released. Some things to note:

- In your last semester, one failing course grade of "3" can be upgraded through supplementary assessment (see Chapter 4.4.6).

- One impact is that this may extend your studies into another semester, and you may want to consider some balancing of your course selections in future semesters such that you eg. do only #6 the next semester (still full-time), and then #4 in the additional semester (part-time).
- The disclaimer to this is that it is possible to undertake studies in the summer semester, eg. MATH7000 - see Chapter 4.9. It is also possible to take a #2 unit, or more, research course - see Chapter 5.6.
- You do not need to take the same course again, but often we recommend that you do as it should be easier the second time around.

Depending on the level of your GPA you may be requested to "Show Cause" as to why you should be allowed to continue your studies:
`https://my.uq.edu.au/information-and-services/manage-my-program/academic-progress-and-fina`
`academic-warnings-and-showing-cause`
For your next semester you are effectively on probation.

4.8 Early exit points

Depending on your choice of courses, it might be possible to withdraw from the Master of Science (Physics) at an early exit point and graduate with one of the following degrees:

• GCertSc — Graduate Certificate in Science (Physics) — #8 units — one-semester
`https://future-students.uq.edu.au/study/program/Graduate-Certificate-in-Science-5138`

• GDipSc — Graduate Diploma in Science (Physics) — #16 units — two-semesters)
`https://future-students.uq.edu.au/study/program/Graduate-Diploma-in-Science-5240`

4.9 Summer Courses

At UQ you are allowed to take up to #6 units (considered full-time) during the summer semester:
`https://my.uq.edu.au/information-and-services/manage-my-program/summer-semester`

However, the School of Mathematics and Physics only offers one course over summer, MATH7000 Calculus & Linear Algebra II, which is co-taught with a second year course MATH2000.

Another option via a Special Topics Course is to undertake an AMSI summmer course:
`http://ss.amsi.org.au/` which then has additional enrolment/assessment to be conducted by a UQ lecturer in the Semester 1 following the course. Depending on the specific course material this may be administrated as a Physics or Maths Special Topics Course. For further information discuss this with the Physics Postgraduate Coursework Convenor.

(There is also a possibility of doing research courses over summer, as discussed in Chapter 5.6).

Chapter 5

Research Project/Thesis

Research projects totalling #8 units are undertaken in research courses of #2, #4, #6, or #8 units, some of which can extend over one or two semesters. It's your choice! Albeit you need to find a supervisor for your project/s who can work with your configuration).

The research courses are listed at (for 2018 commencement):
`https://my.uq.edu.au/programs-courses/plan_display.html?acad_plan=PHYSCX5244`
ie. you are required to take a total #8 units of research courses (part A), selected from:

- PHYS7712 - Project A (#2 in one semester)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7712`
- PHYS7713 - Project B (#2 in one semester)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7713`
- PHYS7722 - Research Project A (#4 in one semester)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7722`
- PHYS7723 - Research Project B (#4 in one semester)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7723`
- PHYS7730 - Advanced Research Project (Sem 1 start, #6 = #2+#4 over two semesters)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7730`
- PHYS7731 - Advanced Research Project (Sem 2 start, #6 = #2+#4 over two semesters)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7731`
- PHYS7732 - Advanced Research Project (#6 in one semester)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7732`
- PHYS7743 - Extended Research Project (Sem 1 start, #8 = #4+#4 over two semesters)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7743`
- PHYS7744 - Extended Research Project (Sem 2 start, #8 = #4+#4 over two semesters)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7744`
- PHYS7745 - Extended Research Project (#8 in one semester)
  `https://my.uq.edu.au/programs-courses/course.html?course_code=PHYS7745`

5.1 Configurations

We generally do not recommend doing research in your first semester at UQ. The usual choices are:

(a) doing two different (one-semester) projects, which may be with the same or different supervisors:

- Second Semester at UQ - PHYS7722 - Research Project A (#4 in one semester)
- Third Semester at UQ - PHYS7723 - Research Project B (#4 in one semester)

This is the recommended sequence if you have not had research experience as an undergraduate, or have not taken PHYS7900 (Perspectives in Physics Research, which includes a small 8-week research project). These require a project report due in the study week period, followed by an oral exam (ie. a "defence"). In addition, Research Project B requires a 15 minute talk presented in public to all Physics staff/students. By doing two different projects is a potential opportunity to gain research experience in two different areas of physics, with two different supervisors.

(b) for those who have already had research experience, and have a good idea of your research interests and/or want to go onto a MPhil or PhD, do one project with a single-supervisor, eg.

- Second Semester at UQ - PHYS7743/PHYS7744 - Extended Research Project (#8 over two semesters)
- Third Semester at UQ - PHYS7743/PHYS7744 - Extended Research Project (#8 over two semesters)

this effectively is the same as undertaking a BSc (Hons) "thesis" programme (PHYS6487 or PHYS6488) which requires various stages including:
In First Semester of Project:
→ submit a project plan at the beginning,
→ 15-minute progress talk on the project presented to your research group,
In Second Semester of Project:
→ Submitted at start - a progress report including a literature review and a timetable for completion,
→ Towards the end - A 20-minute seminar on the project presented in public to all Physics staff/students,
→ The project report, due in the study week,
→ sit an oral exam (a "thesis defence").
Full details of the PHYS7743 or PHYS7744 project requirements are in the Course Profiles.

5.2 Choosing Project/Supervisor

This can be a daunting problem for students as we specialise in five main research areas of physics:
• Quantum Science,
• Biophotonics and Laser Science,
• Condensed Matter Physics,
• Astrophysics,
• Physics Education.
and there are a massive choice of individual research projects generally with one dedicated supervisor, eg. see the list via: `https://smp.uq.edu.au/research/projects`
Note that some projects are not listed as 'Masters'-level, however, you may still discuss it with a supervisor as to whether a Masters project would still be possible if it's an area of your interest.

It is recommended that you attend two events to chat to supervisors / other students:
• Attend Supervisor Project Poster Day! (Semester 1)
• Attend PhD Student Poster Day! (Semester 2)
which is part of our `https://smp.uq.edu.au/prospective-phd-open-days`

UQ Physics host seminars and colloquia throughout the year. These include seminars by distinguished visitors, members of our own staff, and students. In particular Honours and Masters students

give seminars towards the end of their project. It is a good idea to attend as many of these seminars as possible; at the very least, those near your own area/s of interest. You will receive notices via your University student email account and by posters in the physics and maths buildings. You can see an archive of colloquia via: `http://www.physics.uq.edu.au/colloquium/`

5.2.1 Contacting Potential Supervisor

To assist in identifying a suitable supervisor for your project, it is recommend that you include the following information (no more than one page email) when you make initial contact with a potential supervisor:

- A summary of relevant courses completed in your undergraduate studies;
- Details of previously completed research projects (attach report/thesis);
- Courses studied so far in your current program (attach UQ transcript);
- Which of the listed research projects are you interested in.
- Courses you are interested in taking for the remainder of your program.

5.3 Research Time-Management

Roughly 10 hours per week for 13 weeks during the semester total spent on each #2 course, thus you are expected to do similar for research. ie. for the #8 unit 2-semester-long research courses you are expected to spend about 20 hours per week dedicated to research. Note that keeping the balance between the demands of coursework assessment whilst keeping to a weekly schedule of research time is one of the most challenging aspects of the Masters programme.

Are you expected to research during the mid-semester breaks? Yes — this is generally a good opportunity to do some literature reading, get some writing done, and focus on getting some dedicated undistracted time on the lab. You are expected, however, to have a recreational break as well!

How much time to spend on research during the mid-year and end-of-year breaks? This is a question for the #8 unit 2-semester-long research project (PHYS7743 or PHYS7744) — During these breaks we do expect you to take recreational time off. During this time you are half-way through your project. That means it is time to write a combined literature review and progress report over the break, due on the first day of classes of second semester. As a guide for PHYS7744, the amount of time that you work should be comparable to what the PHYS7743 students do during their 4 week mid-semester break in which they also are expected to take a break.

5.4 Research Training Sessions

To assist with the development of your research and presentation skills, we offer once a week (1 hour long) research training sessions, including peer review and feedback sessions of your writing and presentations. These are all optional, however, **strongly recommended** despite the other other demands coming from the coursework and project work. These weekly sessions are an opportunity for questions and answers about the requirements and expectation of various assessment pieces.

5.5 Interdisciplinary Research

Interdisciplinary Research is encouraged! Discuss with your prospective supervisor first, and then talk with the Physics Postgraduate Coursework Convenor. Such projects should be organised a couple of weeks before enrolment to ensure that both the student and supervisors are aware of the physics research course requirements (via the assessment guidelines available on the course profile), in particular the expectations in the rubric.

5.6 Additional #2 unit Research Experience

Some Masters students, who have already completed the coursework that they want, have chosen to do additional research, eg. a #2 unit research course in their last semester. Since this is in addition to their other #8 units of research special approval must be obtained from the Faculty of Science by first discussing it with the Physics Postgraduate Coursework Convenor. This has involved a discrete research project that is separate from their other #8 units, but could still be done with the same supervisor if preferred. It is also an opportunity to get a little taste of a different research field.

Note that it is possible to do up to #6 research units over the summer semester, however, this is not encouraged as during this period the supervisors are often away travelling or on holidays.

5.7 Example Thesis Rubric

An example rubric is available (this is from PHYS7744 #8 unit in 2017)

UQ Physics – Masters #8 unit Thesis Assessment Guidelines

Percentage	Hons Class	UQ Grade	Comments
96-100	I	7	This is truly an **outstanding thesis** - The candidate is one of the best that UQ has seen and should be nominated for a medal within the University or/and with the relevant professional learned society (AIP; ASA). The results and writing are of a standard appropriate for publication in a peer review journal.
91-95	I	7	An **outstanding thesis** - It shows consistent evidence of substantial originality and critical insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critically evaluates problems, their solutions and implications; integrates findings in the big picture of the research area with relevant theories and previous research. With some minor extra work, the results would be of a standard appropriate for publication in a peer review journal.
85-90	I	7	An **excellent thesis** - It shows evidence of substantial originality and critical insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critically evaluates problems, their solutions and implications; integrates findings in the big picture of the research area with relevant theories and previous research. The thesis contains only minor weakness, offset by excellence in almost all other areas. Some potential for publication, and is recommended as a good introduction for future students working in the same area.
80-84	I/IIA	6	A **very good thesis** - The candidate shows frequent evidence of originality in defining and analysing issues or problems and in creating solutions; uses a level, style and means of communication appropriate to the discipline and the audience. The thesis will make a good introduction for future students working in the same area, with perhaps some minor caveats. Level I (GPA 6.2) would typically receive an APA or similar for entry to a Ph.D.
75-79	IIA	6	A **good thesis** - The candidate shows evidence of originality in defining and analysing issues or problems and in creating solutions; uses a level, style and means of communication appropriate to the discipline and the audience. The thesis has some weaknesses and a number of areas of excellence.
70-74	IIA / IIB	5	A **sound thesis** - The candidate demonstrates substantial understanding of fundamental concepts of the field of study and ability to apply these concepts in a variety of contexts; develops or adapts convincing arguments and provides coherent justification; communicates information and ideas clearly and fluently in terms of the conventions of the discipline. The thesis will have a few areas of excellence and may exhibit weaknesses or a couple of minor flaws. Level IIA (GPA 5.650) is the normal minimum entry grade into a Ph.D. program.
65-69	IIB	5	The candidate demonstrates substantial understanding of fundamental concepts of the field of study and ability to apply these concepts in a variety of contexts; develops or adapts convincing arguments and provides coherent justification; communicates information and ideas clearly and fluently in terms of the conventions of the discipline. The thesis will have few areas of excellence and will exhibit several weaknesses and minor flaws. Some sections of the thesis may be relevant for future students working in the same area, however the thesis as a whole is not a good introduction to the field.
60-64	IIIA	4	An **adequate thesis** - It demonstrates adequate understanding and application of the fundamental concepts of the field of study; develops routine arguments or decisions and provides acceptable justification; communicates information and ideas adequately in terms of the conventions of the discipline. The thesis will exhibit a number of minor flaws and weaknesses that are not offset by excellence in other areas. The thesis is not useful as an introduction to students new to the field.
50-59	IIIA	4	A thesis that achieves the minimum pass required for a UQ Masters thesis. It demonstrates adequate understanding and application of the fundamental concepts of the field of study; develops routine arguments or decisions and provides acceptable justification; communicates information and ideas adequately in terms of the conventions of the discipline. There are several flaws (e.g. misconceptions and inconsistencies) throughout the thesis.
45-49	IIIB	3	A **poor thesis** - Demonstrates superficial or partial or faulty understanding of the fundamental concepts of the field of study and limited ability to apply these concepts; presents undeveloped or inappropriate or unsupported arguments; communicates information or ideas with lack of clarity and inconsistent adherence to the conventions of the discipline.
20-44	IIIB	2	Demonstrates clear deficiencies in understanding and applying fundamental concepts; communicates information or ideas in ways that are frequently incomplete or confusing and give little attention to the conventions of the discipline.
0-19	IIIB	1	Fails to demonstrate most or all of the basic requirements of the course.

Chapter 6

Student and Other Support Services

UQ Union, SHOC (Student Help On Campus) http://www.uqu.com.au/student-support
is a free, independent, short-term support service for all UQ students. They can provide you with assistance on matters relating to the following services:
Education & Equity, Employment, Gender & Sexuality, Legal, Migration, and Welfare. Your US Student Services and Amenities Fee (SSAF) includes funding eg. for the UQ Union and SHOC, so use their services if needed!

6.1 Campus Life

The St Lucia campus hosts more than 15,000 new students every year so new students are not alone! http://www.pbi.uq.edu.au/ClientServices/UQStatistics/index.aspx

For an introduction to Campus Life see the various information events during O-Week: https://orientation.uq.edu.au/ (including events before and during the year!)

6.1.1 PAIN (The UQ Physics Students Society)

PAIN aims to foster a sense of physics student community. Their members are drawn from all levels within the discipline: undergraduate and postgraduate. Students are urged to join this society and become fully involved in their activities. It is an excellent way to meet other students. Information on PAIN and their mailing list can be found at http://www.physics.uq.edu.au/pain
They run a stall at the O-Week Market Day https://orientation.uq.edu.au/event/market-day so go and say hello to them and sign up!

6.1.2 UQU ASA (Association of Postgraduate Students

UQ has a dynamic Postgraduate Students' Association representing 14,000 postgraduate students: http://www.uqu.com.au/uqu-aps with representatives on the committee from many different countries! from both Masters-by-coursework and PhD programmes.

APS host several activities during the year such as:
• Social events: BBQ's, pub crawls, hiking trips, movie nights, family picnics, trivia nights, semi-formal balls, formal balls and much more!
• Professional events: technical workshops, training sessions, industry networking nights, Alumni networking nights and much more!
• Support systems: bursaries are awarded throughout the year to postgraduate students.
• Continuous representation: the executive team represent the interests of all postgraduate students and regularly engage with several committees at the University (so let them know your problems!)

Sign up to the UQU ASA newsletter via http://tinyurl.com/UQAPS

6.1.3 UQU International Student Associations

Sign up for UQ student Union (UQU) notices via http://www.uqu.com.au/international-faq

For international students it is strongly recommended that you join an ISA. See the big list at: http://www.uqu.com.au/clubs-category/international-3

6.1.4 Sport and Fitness

Sport and Fitness are an important part of maintaining your physical and emotional health during your studies. At UQ we have a range of options https://uqsport.com.au/ . On campus we have a Gym, Swimming Pool, Tennis Courts, and more.

Bicycling is a year-round great method for transportation (no snow days in Brisbane). For bicycle paths both on and to/from campus there are printable maps at :
https://www.pf.uq.edu.au/maps/parking/01Bicycle.pdf
https://www.pf.uq.edu.au/maps/parking/01BicycleSurrounds.pdf
or see Google Maps → click Menu → Bicycling at
https://www.google.com.au/maps/place/The+University+of+Queensland/
There are end-of-ride (End of Trip) facilities on campus including lockers/showers and bicycle parking available for (lockers have a rental cost, showers are free): https://www.pf.uq.edu.au/cycling/
You cannot store bicycles in offices or corridors due to fire hazard.

Brisbane CityCycle runs a bicycle programme where you rent bicycles:
http://www.citycycle.com.au/ and there are a few 'Stations' on campus to leave them at:
http://www.citycycle.com.au/content/download/29136/160525/version/4/file/CityCycle_Map_2017.pdf . The price for students is cheaper, and it's a great way to start off your exploration of Brisbane when you first arrive!

6.2 Food

See http://www.uq.edu.au/student-services/upcoming-workshops for workshops such as "Living on a Student Budget" and "Eating Well on a Budget" which provide advice on everything from establishing a budget to cooking healthy meals while saving money.

There are many options for food on campus http://www.uq.edu.au/about/places-to-eat , and the coffee choices are good-excellent https://www.beanhunter.com/ . There are also several Halal certified food options on campus.

The nearest supermarket to St Lucia campus is the IGA http://igastlucia.com.au .
The main Australian supermarkets are https://www.coles.com.au/ ,
https://www.woolworths.com.au/ , https://www.aldi.com.au/ .
There are also fantastic markets dotted around Brisbane during the weekend.

6.3 International Student Advisors (ISAs)

UQ has International Student Support to help overcoming the unique challenges of studying in a foreign country through International Student Advisors (ISA)
http://www.uq.edu.au/student-services/international-students

Our ISAs can provide general information, support and referral for:
- Understanding university processes
- International and domestic students with families
- Transition to living in Brisbane and Australia
- Accommodation issues and homelessness for international and domestic students

• Financial, welfare and health issues
• English language, OSHC, and understanding student visas
You can contact them with any questions or to make an appointment with a Student Adviser.

Whilst the ISAs can help you to understand and manage the requirements and conditions of your student visa, however, they cannot provide specific migration or visa advice or assistance with a visa application `http://www.uq.edu.au/student-services/visa`

6.4 Health and Medical Services

`https://my.uq.edu.au/information-and-services/student-support/health-and-welfare`

The UQ Health Service: `http://www.uq.edu.au/healthservice` situated on Level 1, Gordon Greenwood Building (Blg 32) is available to current students of UQ (and their dependents). It offers:
• General medicine (e.g. medicals, check-ups, injury treatment)
• Mental health (e.g. anxiety and depression)
• Sexual health (e.g. sexual health checks and contraception)
• Women's health (e.g. pap smears, pregnancy testing/advice)
• Men's health (e.g. testicular checks)
• Drug and alcohol related issues
• Referrals (e.g. specialists and pathology)
• Skin checks (e.g. skin cancer screening)
• Travel medicine (e.g. immunisations/vaccinations and medications)
• Wellness support (e.g. quitting smoking, losing weight, stress)
with Bulk-billing available for domestic students.

On-campus free influenza vaccinations are offered to all UQ staff including casual and continuing/fixed-term staff. Unfortunately this offer does not extend to UQ students.

See more information about where to go in case of illness at:
`http://www.uq.edu.au/healthservice/stlucia-clinicinfo`

6.4.1 Physical and Mental Health Support and Counselling

For students with physical and/or mental disabilities, UQ has systems in place to ensure you have equitable access to our courses
`https://my.uq.edu.au/information-and-services/student-support/disability-services`
The disability may even be temporary, as in the case of a fractured wrist. Contact a *Disability Advisor* for further advice, and to develop Disability Access Plan for your courses.

If a condition is unexpectedly impacting your studies, see the Physics Postgraduate Coursework Convenor as soon as possible for advice about your academic options. It is your responsibility to apply for extensions (see Chapter 4.4.4), adhere to deadlines, etc.

UQ offers free one-on-one counselling for all currently enrolled UQ students. You are eligible for six free counselling sessions each year. They also offer crisis appointments if needed. For bookings:
`http://www.uq.edu.au/student-services/counselling-services`

If you are suffering from anxiety and depression, you can also see the UQ Health Service Doctors for advice. They have a collection of useful websites at:
`http://www.uq.edu.au/healthservice/self-help/stress-and-mental-health`

6.5 Occupational Health and Safety

Students are required to observe the University's Occupational Health and Safety Policy:
`http://www.uq.edu.au/ohs/policies-procedures-guidelines`

Students are responsible for adopting study and work practices in a safe manner that does not impact adversely on the environment. Students should check with their advisors about special safety issues that may apply to their research work. Students should familiarise themselves with relevant procedures to minimise the risk of injury.

6.5.1 Safety and Emergencies on campus

Australia's emergency phone number is Triple-Zero (000) for police, fire, ambulance. This can be dialled from any fixed, mobile phone, or pay phone.

On Campus UQ Security is available 24 hours a day, 7 days a week, 365 days a year.
`https://www.pf.uq.edu.au/security/`
Store the following NOW in your phone/contacts:
UQ Security-Emergency (+61) 07 3365 3333
UQ Security-General (+61) 07 3365 1234 (or free-call 1800 800 123) (The General number is for non-urgent enquiries, eg. if you lock yourself out of your office.)

Personal Safety

UQ provides several free options for safe movement around the campus and the nearby community
`https://www.pf.uq.edu.au/unisafe`
There is a free app called UQ SafeZone: `https://www.pf.uq.edu.au/unisafe/uqsafezone/` .

Fire Safety

All staff and students should familiarise themselves with escape routes and locations of fire-fighting appliances. A list of fire wardens will be visible in your building - familiarise yourself with these. Following your Local Site Induction in O-week (see Chapter 3.6), you need to undertake the UQ "Annual Fire Safety Training" module every year.

In the event of fire, you must obey the instructions of staff or other authorised officers of the University. If you notice the fire, (if safe to do so) **phone UQ Security-Emergency** (listed above) immediately who will then call the Fire Brigade.

Accidents on campus

In the event of a **major injury or accident** on campus, once the person is removed from danger (if safe to do so), phone **UQ Security-Emergency** (listed above) immediately. They are equipped with emergency equipment and will make an assessment of the situation on arrival. The patient may then be taken either to the University Health Service for treatment, or in the case of a particularly serious injury, to hospital.

For **minor injuries or accidents** a list of First-Aid Officers is visible in your building (shown to you during your Local Site Induction). A First-Aid kit is located in the School office (2nd floor Physics Annexe), and in the Physics Mailroom (3rd floor Physics Annexe).

You may also phone the UQ Health Service (+61) 07 3365 6210 for immediate advice.

Occupational Health and Safety

If you sustain an injury while participating in a class, in particular while tutoring, you should inform the lecturer in charge immediately and attend the University Health Service for treatment. An incident report available from the Occupational Health & Safety Division website
`http://www.uq.edu.au/ohs`
and should be completed and submitted to the SMP OHS (see Chapter 1.6).

For workers compensation claims, the Work Injury Management section:
`http://www.uq.edu.au/ohs/work-injury-management`
should be contacted.

All injuries must be reported to your research supervisor or directly to the School's Workplace Health and Safety Officer (see Chapter 1.6).

6.6 Loss and Theft

Unfortunately, theft does occur occasionally from University premises. In the event of loss or theft, the full circumstances should be reported to your Physics Administration Officer as soon as possible. The University and the School attempt to provide security for property but cannot accept responsibility for any losses. Please take responsibility for ensuring that your valuables are secure.

6.7 Smoking on campus

Smoking is forbidden in all University buildings, including lifts and fire escapes.

6.8 Severe Weather — Take it seriously

Brisbane can get severe weather, especially spectacular storms in the spring-summer months. Sign up for the Brisbane City (free) Early Warning Alerts `https://ewa.brisbane.qld.gov.au/` for email or SMS notifications on your mobile phone. Also watch the official Government weather radar
`http://www.bom.gov.au/products/IDR662.loop.shtml`
If there are severe storms they most often roll into the city fast in the afternoon, containing lightning, strong winds, and large hail - so make sure that you get safely under cover.

Brisbane experienced significant flooding events in 1974 and 2011. To see the areas that have historically experienced flooding see the Brisbane City Council website:
`https://www.brisbane.qld.gov.au/community-safety/community-safety/disasters-emergencies/be-prepared/flooding-brisbane/flood-awareness-map`
If a road is flooded - do not cross it: `http://floodwatersafety.initiatives.qld.gov.au/`

Chapter 7

Graduation and Future

See https://my.uq.edu.au/information-and-services/graduation-and-leaving-uq

The graduation process checklist at:
http://www.uq.edu.au/graduations/

There are two graduation ceremonies per year — July and December. For information about the ceremonies see:
https://my.uq.edu.au/information-and-services/graduation-and-leaving-uq/graduation-ceremon
family welcome.

The School of Mathematics and Physics gives a special function on the day.

Graduation Calendar http://www.uq.edu.au/events/calendar_view.php?category_id=10

7.1 PhD at UQ?

For the School of Mathematics and Physics information see:
https://smp.uq.edu.au/study/higher-degree-research

For application dates and process see:
https://graduate-school.uq.edu.au/future-students/applying-research-higher-degree

Having an UQ MSc Degree currently means that International Students do not compete for the same set of PhD scholarships as other International Applicants. Note, however, that these are still very competitive. As a GPA guideline we award "First-Class" Honours to students with 4th-year GPA of 6.2 or higher. To be competitive your overall MSc GPA should be above 6.2, and if you have a research paper from your project your chances will be increased.

It is recommended that you attend two events to chat to supervisors / other students:
• Attend Supervisor Project Poster Day! (Semester 1)
• Attend PhD Student Poster Day! (Semester 2)
which is part of our https://smp.uq.edu.au/prospective-phd-open-days

7.2 Alumni

The University's outstanding 250,000-plus alumni include a Nobel laureate, two Fortune 500 company CEOs, an Academy Award winner, and leaders in government, law, science, public service, the arts:
https://alumni.uq.edu.au/notable-alumni

The University celebrates its alumni as its greatest assets. Their achievements make the University great and, in return, the University will work hard to strengthen its reputation.

To keep in contact after leaving UQ make sure you keep your contact details updated at
`https://alumni.uq.edu.au/`

Subscribe yourself to the Facebook Group for the School of Mathematics and Physics alumni:
`https://www.facebook.com/groups/910573209077052/`
for regular notices for UQ Physics specific News and Events.

Chapter 8

Masters - Study Abroad at UQ!

We welcome Masters-level Study Abroad and Incoming Exchange students!
http://www.uq.edu.au/studyabroad/
We have hosted students for one and two semesters from all over the world.

For information about Physics course options/suggestions see Chapter 4.

You are welcome to contact the Physics Postgraduate Coursework Convener (before applying, and when you have arrived). In particular we recommend doing a small #2 unit research project whilst here at UQ.

Note that Study Abroad students are required to meet a program's overall language score requirement (e.g. 6.5 IELTS or 87 TOEFL or 64 PTE):
https://future-students.uq.edu.au/applying/english-language-proficiency-requirements

We aim to give our Masters Study Abroad students access to the same office space and facilities as our UQ Masters students, and we welcome you to our events such as colloquia.