

## Orientation and Welcome

**Semester 1, 2024** 

Postgraduate Studies in Magnetic Resonance Technology (MRT) & Molecular Imaging Technology (MIT)

## Acknowledgement of **Country**

The University of Queensland (UQ) acknowledges the Traditional Owners and their custodianship of the lands on which we meet.

We pay our respects to their Ancestors and their descendants, who continue cultural and spiritual connections to Country.

We recognise their valuable contributions to Australian and global society.



## Housekeeping



Recording in progress



Your video is off



Your microphone is off



Ask questions via Q&A function at the end of the presentation





## Centre for Advanced Imaging (CAI)

A University Centre which undertakes:

#### Research

- Diverse range of disciplines:
  - Biomedical, Computer Science, Engineering, Biology, Physics and Chemistry.
- over 50 HDR students.

#### Research service and engagement

- Open facility access and provision of expertise to the UQ and wider research community.

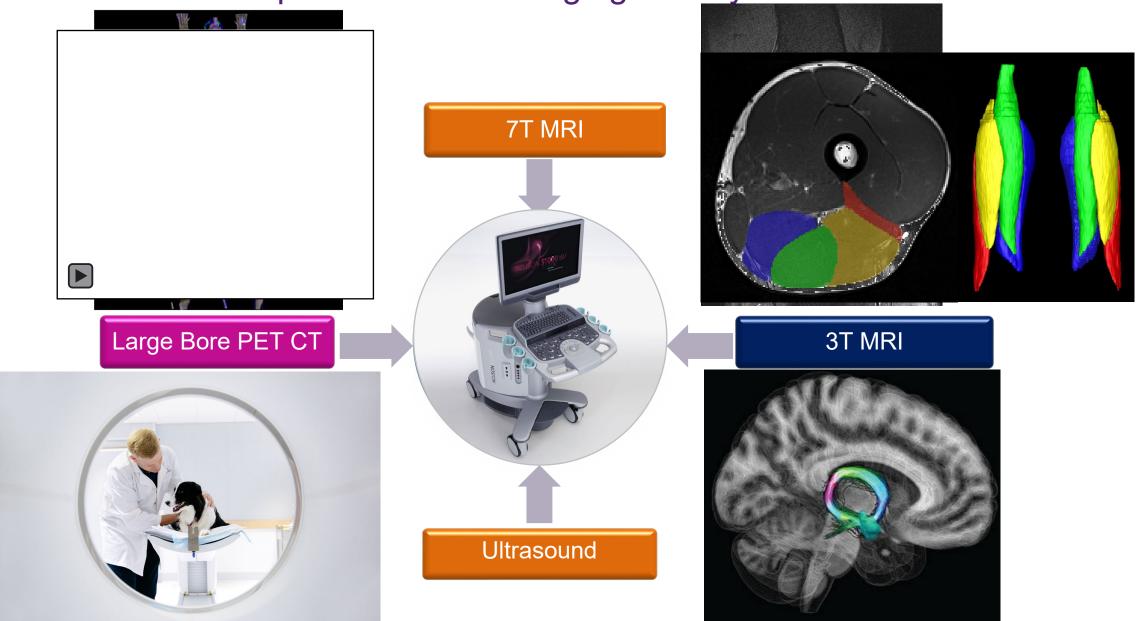
#### Teaching and Learning

- Postgraduate coursework in
  - Magnetic Resonance Technology,
  - Molecular Imaging Technology
- summer/winter research internships.



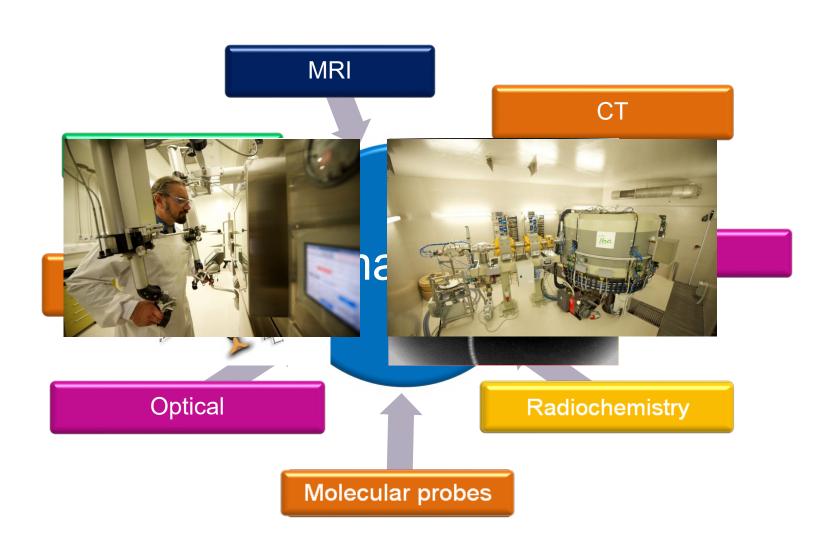


Human and Companion Animal Imaging Facility





## Pre-clinical Imaging Facilities



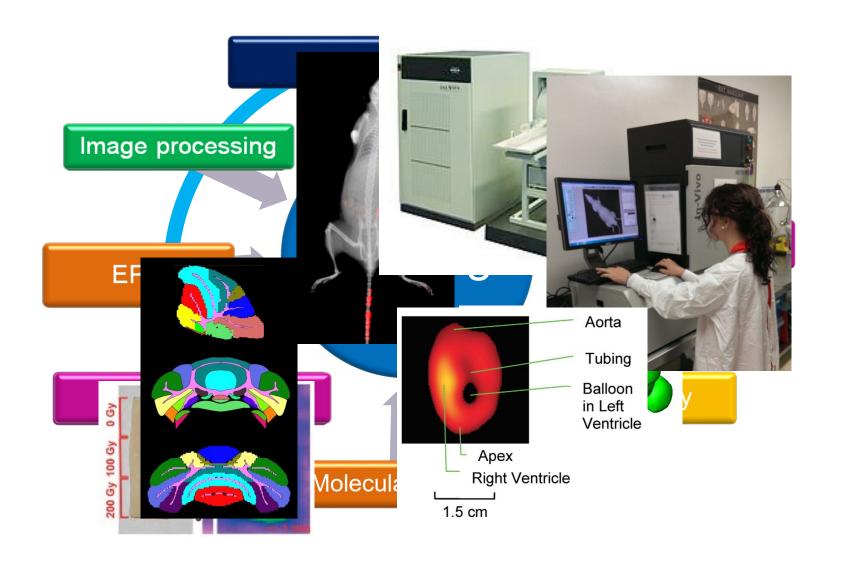


## Pre-clinical Imaging Facilities





## Pre-clinical Imaging Facilities





## **Spectroscopy Facilities**

Nuclear Magnetic Resonance Spectroscopy (NMR)

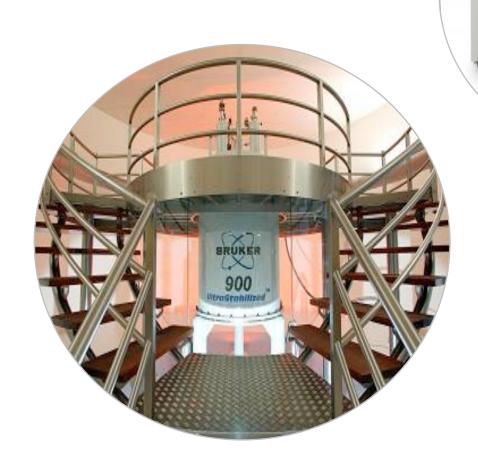
High-resolution facilities

- 900MHz Biomolecular applications
- 700MHz Metabolomic applications

Other facilities

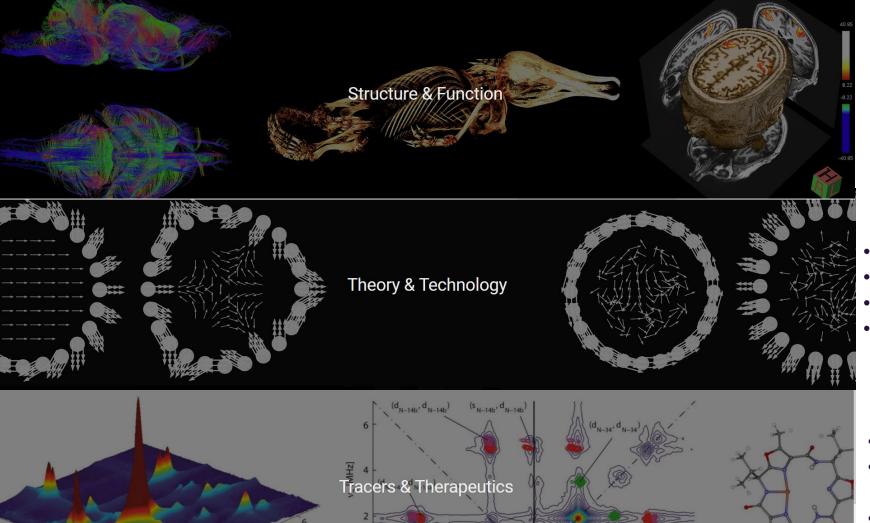
- 500MHz
- 300MHz Solid State Materials science applications

Electron Paramagnetic Resonance (EPR) is used to study materials with unpaired electrons with applications in nanomaterials, materials science, structural biology and chemistry, food science, radiation dosimetry and medicine.



#### CAI Research Themes

centre.uq.edu.au/research



- Comparative Oncology
- Epilepsy
- Simultaneous PET-MRI
- Ultra-high field human MR
- Cancer Metabolism and Emerging Biomarkers

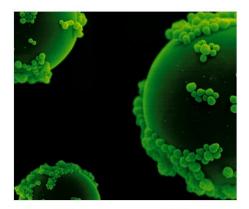
- MR Methods
- Systems Biology
- EPR imaging of free radicals in biology
- Ultra-low field MR

- Protein Structural Biology
- Natural product chemistry and biodiscovery
- Nanomedicine: development of multimodal molecular imaging probes for theranostics



## THE UNIVERSITY OF QUEENSLAND

#### AIBN's Three Pillars of Research



Precision nanomedicine



Nano-engineered materials



Australian National Fabrication Facility (ANFF)



Centre for Microscopy and Microanalysis (CMM)



National Biologics Facility -Queensland Node (NBF)

(nucleic-acids biomanufacture

Facilities

BASE

facility)



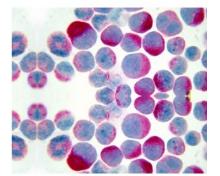
TQ-MAP

Protein Expression Facility

**Oueensland Metabolomics** 

and Proteomics

(Q-MAP)



Advanced biomanufacturing



StemCore



Integrated Design Environment for Advanced biomanufacturing (IDEA Bio)



A F

Australian Organoid Facilty (AOF)



In vitro Genome Engineering and Disease Modelling Service



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# CAI Seminar Series typically held Tuesday Mornings

Please sign up to receive email notifications.

enquiries@cai.uq.edu.au

## AIBN Seminar Series is typically held 11 am Thursday

https://aibn.uq.edu.au/event/1450/aibnseminar-series

CRICOS code 00025B

## CAI Education Leadership



Academic Head of Teaching & Learning MMIT Program Coordinator

A/Prof Idriss Blakey <a href="mailto:i.blakey@uq.edu.au">i.blakey@uq.edu.au</a>



Clinical Head of Teaching & Learning MMRT Program Coordinator

Chrystal Douflias c.douflias@uq.edu.au





## Semester 1-2024 Teaching Team

## Teaching Team for Semester 1, 2024



Dr. Nick Fletcher Postdoctoral Research Fellow n.fletcher1@uq.edu.au MOLI7101



**Dr Monique Tourell** MRES7002 m.tourell@uq.edu.au



Dr Javier Urriola MRES7005 j.urriolayaksic@uq.edu.au



Associate Professor Martijn Cloos MRFS7100 m.cloos@uq.edu.au





Dr. Craig Bell MRES7009 c.bell1@uq.edu.au



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Sarah Daniel MOLI7108 sarah.daniel@cai.uq.edu.au



Dr Karine Mardon MOLI7102, k.mardon@uq.edu.au



**Chrystal Douflias** MRES7003 MRES7014 MRES7010 MRES7025 MRES research courses c.douflias@uq.edu.au



Associate Professor Viktor Vegh MOLI7109 viktor.vegh@cai.uq.edu.au



Dr Nyoman Kurniwan MRES7107 nyoman.kurniawan@cai.uq.edu.au

## Course Tutors and research project supervisors



Chia-Yin wu PhD Candidate MRES7100 chiayin.wu@ug.edu.au



Zeinab Eftekhari PhD Candidate MRES7015 z.eftekhari@uq.edu.au



Azin Shokraei Fard
PhD Candidate
MRES7015
a.shokraeifard@uq.net.au



## **Enquiries and Support**



Administration is provided through team at School of Mathematics and Physics (SMP)

SMPstudentadmin@uq.edu.au

#### Reception for Centre for Advanced Imaging Building



Alani Winter
Reception
reception@cai.uq.edu.au



Rohan Osborne Marketing and Engagement Officer



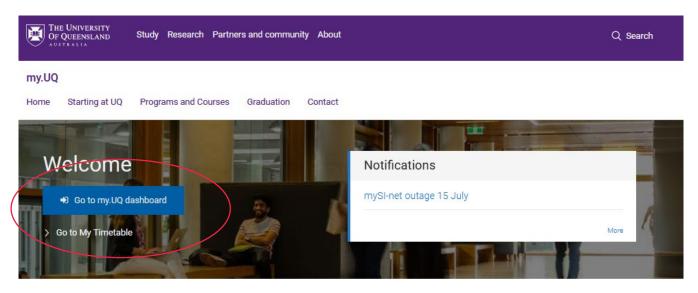
## Orientation week

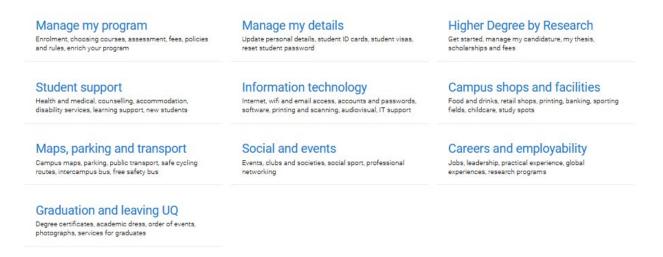
- "Getting Started" Orientation workshops are **compulsory** for International Students, and recommended for domestic students new to UQ: Click here
- Complete all the steps on the "Starting at UQ" page. Click here
- Organise a student ID card. Even if you are an external student, you can be required to have an ID card for examinations: Click here
- Begin your course (subject) enrolment on my.<u>SI-Net</u>. **You must add at least one course in SI-Net prior to semester starting.**
- The University recommends **10 hours study time per week per #2 unit course.** This is the estimated amount of study required to be successful. Four #2 unit courses equates to a full time study load (40 hrs per week).
- **For domestic students** to pay for your studies using **FEE-HELP** (domestic student loans) please read more information <a href="here">here</a> and then follow the instructions <a href="here">here</a> to apply online.

CENTRE FOR ADVANCED IMAGING



## my.UQ.edu.au Dashboard



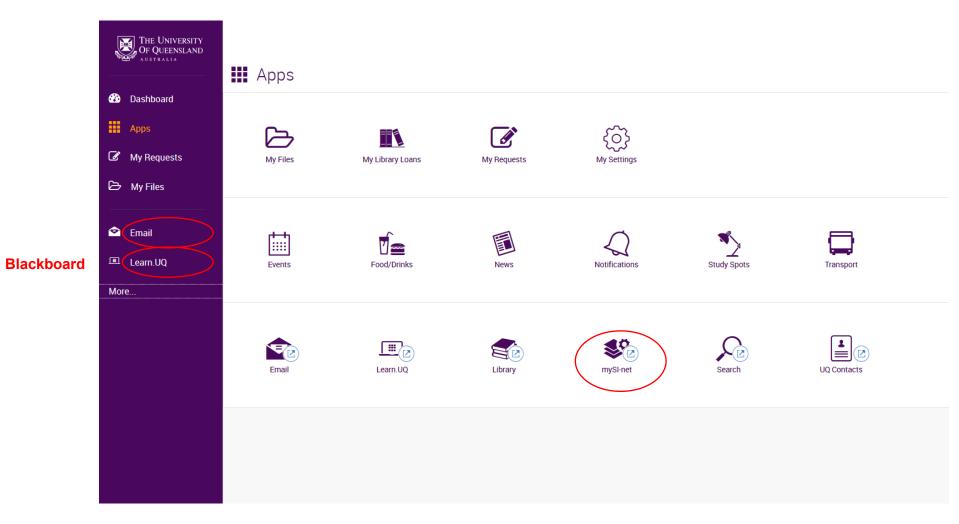


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## my.UQ Homepage

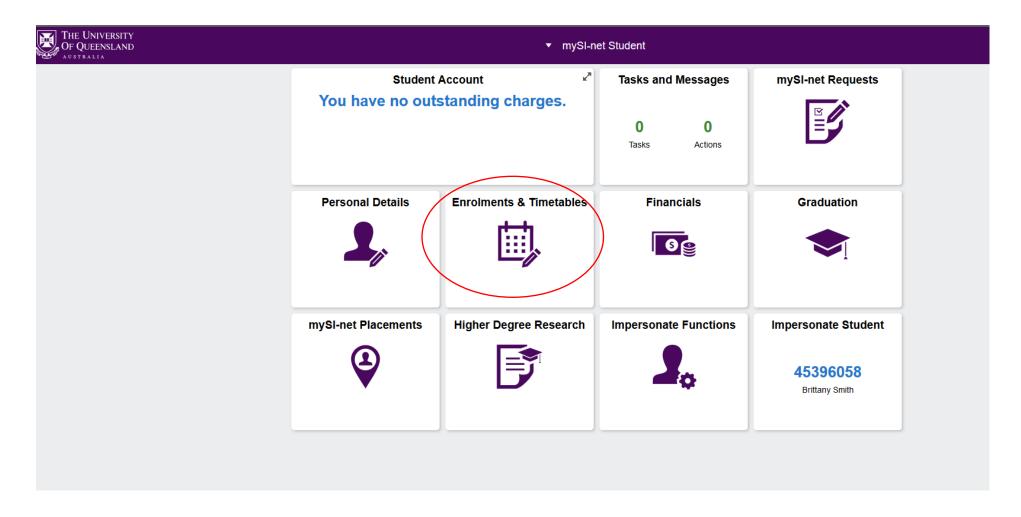


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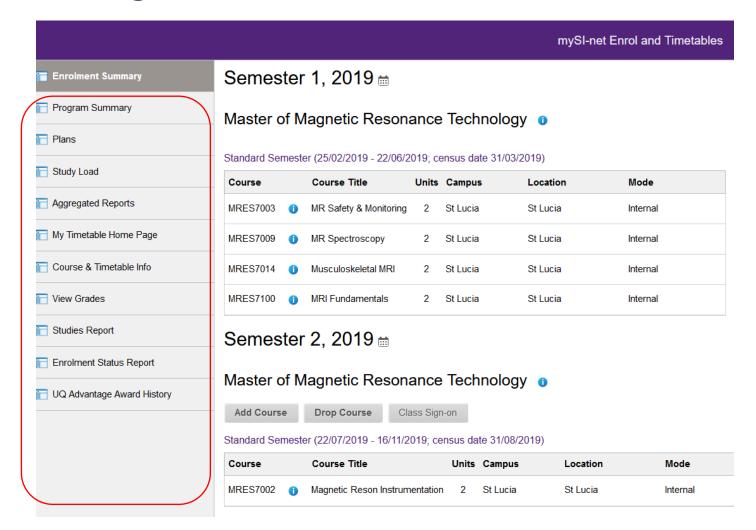
## mySI-net Homepage



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## Enrolling in courses in SI-Net

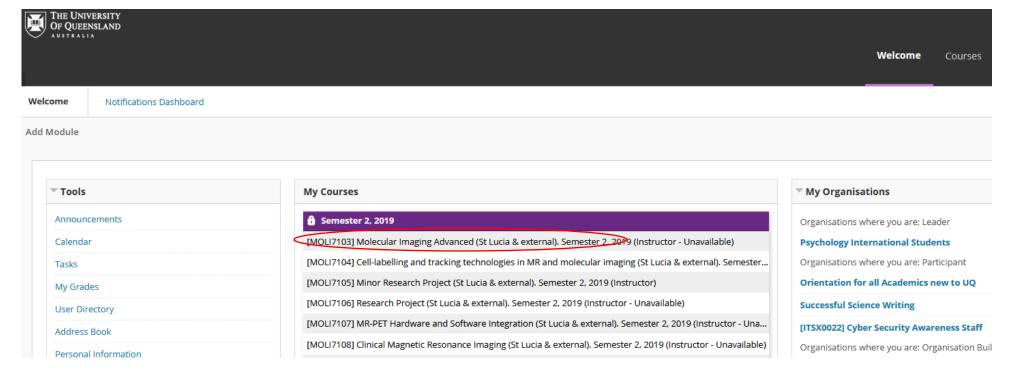


#### **IMPORTANT!!!**

Please enrol in the correct study mode because this can impact on the exam arrangements.



## Learn.UQ - Blackboard Homepage





## Permission or Error messages when enrolling?

Typically, these are courses that require a prerequisite or for research project courses which require an appropriate research project and supervisor

Email <a href="mailto:smp.studentadmin@uq.edu.au">smp.studentadmin@uq.edu.au</a> to remove the restrictions and request permissions

ERROR your attempt to enrol in MRES7100 has failed. Please see the error message below and if necessary contact the school / faculty.

#### **Error Details:**

This course has restrictions that you have not satisfied or you have completed an equivalent course in a previous semester. Please check the course information on Courses and Programs for information on restrictions, prerequisites and incompatibles. (14640,18)

#### Error Details:

Consent is needed to enroll in the class. The add transaction was not processed. (14640,38)

ERROR your attempt to enrol in MRES7100 has failed. Please see the error message below and if necessary contact the school / faculty.

#### Error Details:

The class falls outside of the career of study. (14640,133)



## During the Semester

Semester 1 2024 starts on Monday 19th February

- Compulsory to complete online <u>Academic Integrity Tutorial</u>.
  - Login to blackboard (Learn.UQ via "My.UQ".)
- Due dates
  - Part A by 31 March 2024
  - Part B by 24 May 2024 (end of week 13).

Blackboard (Learn.UQ) courses websites may not be accessible until start of semester.

#### Check your UQ Email regularly.

- All official communication will be sent to this account. -
- -e.g. deadlines for payment of fees, course enrolment dates, extension requests, graduation paperwork and so on.
  - -You can stop unwanted Blackboard email notifications:

Any admin questions?

Email <a href="mailto:smp.studentadmin@uq.edu.au">smp.studentadmin@uq.edu.au</a>

- Include your student number and course code in your email.





## Program Lectures/Tutorials

- Lectures/tutorials will be face-to-face and/or via zoom
  - Face to Face sessions held in Building 57 room 207 unless otherwise noted.
  - Sessions will be recorded and posted on blackboard

- The timetable will be posted on the course Blackboard sites (Learning Resources tab)
  - only courses with face-to-face sessions will be listed.

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## **Important Dates**

http://www.uq.edu.au/startingatuq/important-dates

#### **Monday 19th February – Semester Starts:**

-You must add at least one course on SI-Net prior to semester starting in order to avoid late fees.

#### Friday 1<sup>st</sup> of March – Self service enrolment ends:

-Final date for addition of courses or alteration of enrolment. Late fees will apply to add courses after this date.

#### Sunday 31st of March – Semester 1 Census Date (Financial implications locked in):

- After this date, you can no longer add any course (unless exceptional circumstances apply).
- After this date, you can drop courses without academic penalty, but you will still be liable for fees.

#### Tuesday 30<sup>th</sup> April – Semester 1 (Academic implications locked in):

- last date to drop courses or cancel enrolment without academic penalty



## Most Importantly...

## Final Exams

Most courses have online non-invigilated exams

- Read the instructions
- Tips
  - Ensure you are using a stable link to the internet
  - take screenshots to show evidence of any technical issues faced
- email the technical support email listed on the exam instructions and keep copies of your email and response.



#### Applying for an assessment extension

How to apply

/ Information and services / Manage my program / Exams and assessment

## Extensions

#### **Assessment Extensions**

You must complete the online extension request form,

- an email request is not sufficient.

You must provide <u>supporting documentation</u> for your extension request.

#### **Deferred Examinations**

Students can apply for a <u>deferred examination</u> under two criteria:

- (i) Exceptional and Unavoidable Circumstances, or (ii) Discretionary Deferral.
- i. You are eligible to apply for a deferred examination if you can provide evidence of a medical condition, or other exceptional and unavoidable circumstances.
- ii. You are eligible to apply for a one-off discretionary deferred exam if your situation is personally inconvenient. Note that each student can apply for <u>only one</u> discretionary exam during the lifetime of their enrolment.

#### 3. How to apply

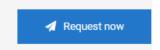
2. Acceptable reasons for an extension

Overview

Read sections 5 and 6 of your course profile before applying for an extension.

#### Request an extension

Your tutor or the relevant person will notify you of the outcome of your request.





# Enquiry Where should I go?



**Orientation** 

Science Student Experience Team

studentexperience@science.uq.edu.au /



**Study Plan** 

**Refer to Study Planner** 

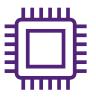
https://planner.science.uq.edu.au/



Course

**School of Maths and Physics** 

Timetable, permission to enrol etc smp.studentadmin@uq.edu.au



**Program** 

**Faculty of Science** 

Progress check, credit etc

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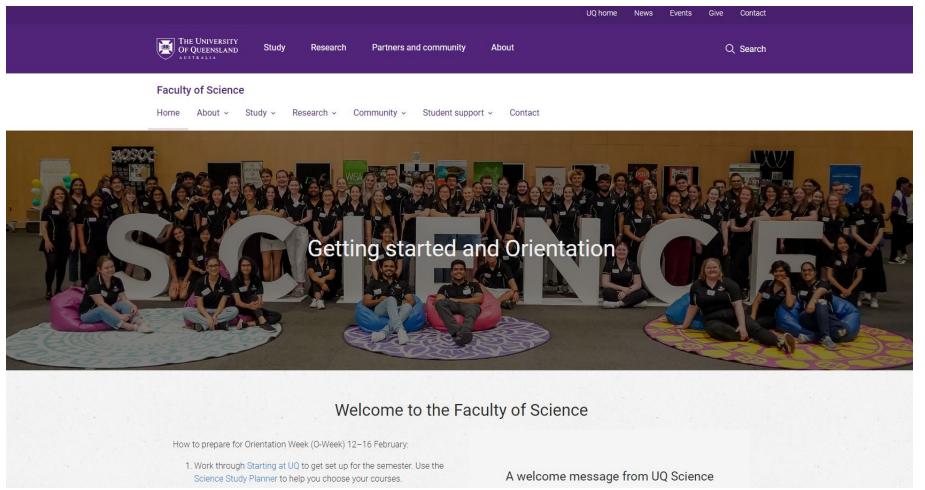
#### **Faculty of Science Orientation**

https://science.uq.edu.au/student-support/orientation



#### **UQ** Orientation

https://my.uq.edu.au/information-and-services/student-support/orientation





## **Student Support Information**

? Faculty of Science Student Team	https://science.uq.edu.au/student-support
UQ Student Health and Wellbeing	https://science.uq.edu.au/student-support
Study Skills	https://my.uq.edu.au/information-and- services/student-support/study-skills
** Contact Student Life	https://my.uq.edu.au/contact/student-life
Careers and Employability	https://employability.uq.edu.au/

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## Centre for Advanced Imaging Postgraduate Coursework Programs

### Magnetic Resonance Technology (MRT) Programs

Study planner link for MRT programs

- Graduate Certificate MRT
- Graduate Diploma MRT
- Master MRT

# Master of Molecular Imaging Technology (MMIT)

Study planner link for MMIT programs



## **Recommended Study Plans**

#### **Study planner for:**

- Graduate Certificate MRT

Step 1 Complete the following study plan					
Year 1					
) 2	MRES7002	MRES7003	MRES7100	MRES7400	
1st Semester (July – Nov) Semester 2	Magnetic Resonance Instrumentation	MR Safety & Monitoring	Magnetic Resonance Imaging: Fundamentals	MRI Pulse Sequence Construction & Image Contrast	
	2 units – Core Course	2 units – Core Course	2 units – Core Course	2 units – Core Course	

#### **Study planner for:**

#### - Graduate Diploma MRT

Semester 1 commencement

Step 1 Start with the base study plan outlining Core Courses

	L - F	MRES7003	MRES7100	MRES7400	Option
	1st Semester (Feb – Jun) Semester 1	MR Safety & Monitoring	Magnetic Resonance Imaging: Fundamentals	MRI Pulse Sequence Construction & Image Contrast	
	<del>+</del> ⊕ °	2 units – Core Course	2 units – Core Course	2 units – Core Course	2 units – Program Elective Course
	2 S.e.	MRES7002	Opt	tion	Option
	mest - No ster	Magnetic Resonance 4 units –			
2 <sup>nd</sup> Semester (July – Nov) Semester 2		Instrumentation	Research Project Course OR Program Elective Courses		2 units – Program Elective Course
	• •	2 units - Core Course	i rogram Elec	ctive couroco	

#### **Research option**

4 Units MRES7015

#### **Core Courses**

MRES7002 can also be take in the 1st semester



## **Recommended Study Plans**

#### **Magnetic Resonance Technology Programs**

#### **Study planners for:**

#### - Master of Magnetic Resonance Technology

Semester 1 commencement

p 1 Start with the base study plan outlining Core Courses and Research Project Courses

Year 1					
1st Semester (Feb – Jun) Semester 1	MRES7003 MR Safety & Monitoring 2 units – Core Course	MRES7100  Magnetic Resonance Imaging: Fundamentals  2 units – Core Course	MRI Pulse Sequence Construction & Image Contrast 2 units – Core Course	Option  2 units – Program Elective Course	
2 <sup>nd</sup> Semester (July – Nov) Semester 2	MRES7002 Magnetic Resonance Instrumentation  2 units – Core Course	Option  2 units – Program Elective Course	Option  2 units – Program Elective Course	Option  2 units – Program Elective Course	
3 <sup>rd</sup> Semester (Feb – Jun) Semester 1	Option  2 units – Research Project Courses*	Option  2 units – Research Project Courses*	Option  2 units – Research Project Courses* OR Program Elective Course	Option  2 units – Program Elective Course	

#### **Research options**

4 Units MRES7015

Or

6 unit MRES70xx Advanced Research Project\*

\*Note that external mode requires a 2 week residential component at St Lucia campus and approval from the Director of T and L.





## Master of Molecular Imaging Technology (5692) Recommended Full-time Study Plan

#### Semester 1 commencement

Step 1 Start with the base study plan outlining Core Courses and Research Project Courses

Year 1					
<u> </u>	MOLI7101	MOLI7102	MOLI7109	MRES7100	
1st Semester (Feb – Jun) Semester 1	Molecular Targets & Imaging Probes	Clinical Molecular Imaging	Radiotracer Based Imaging	Magnetic Resonance Imaging: Fundamentals	
	2 units – Core Course	2 units – Core Course	2 units – Core Course	2 units – Core Course	
2nd Semester (July – Nov) Semester 2	Option	Option	Option	Option	
2 <sup>nd</sup> (Ju	2 units – Program Elective Course	2 units – Program Elective Course	2 units – Program Elective Course	2 units – Program Elective Course	
	Option	Option	Option	Option	
3 <sup>rd</sup> Semester (Feb – Jun) Semester 1	2 units – Research Project Course	2 units – Research Project Course	2 units – Research Project Course* OR Program Elective Course	2 units – Program Elective Course	

#### 2 unit options

MOLI7103 Molecular Imaging Advanced
MOLI7104 Cell-labelling and tracking technologies
MOLI7105 Minor Research Project
MOLI7107 MR-PET Hardware and Software Integration
MOLI7108 Clinical Magnetic Resonance Imaging
MRES7009 MRI Spectroscopy & Applications
STAT7120 Analysis of Scientific Data

https://my.uq.edu.au/programscourses/program list.html?acad prog=5692

#### **Research options**

4 Units MRES7015

Or

6 unit MRES70xx Advanced Research Project\*

\*Note that external mode requires a 2 week residential component at St Lucia campus and approval from the Director of T and L.



# Pre-requisites to consider when planning your course enrolment

#### MRT program courses

MRES Courses	Pre-requisites	Semester		
miteo courses	110-1044131103	ocinicator .		
MRES7100 MRI Fundmtls	NONE	1,	2	Core
MRES7002 MR Instrmtn	NONE	1,	2	Core
MRES7003 MRI Safety	NONE	1,	2	Core
MRES7400 Pulse Seq	MRES7100	1,	2	Core
MRES7005 Fast Imaging	(MRES7100)	1,	2	Elective
MRES7007 Dif Perf	(MRES7100)	1	1	Elective
MRES7009 Spectro	NONE	1	ı	Elective
MRES7010 Minor Rsrch	4x core courses from Part A and Permis	sion 1,	2	Research
MRES7013 Brain Spine	NONE	2	2	Elective
MRES7014 MSK	NONE	1	1	Elective
MRES7015 Clinical Project	4x core courses from Part A and Permis	ssion 1,	2	Research
MRES7016 Cardiac and vascular	MRES7100, MRES7004, MRES7005.	2	2	Elective
MRES7017 Breast	NONE	2	2	Elective
MRES7018/19/20/21/22	(MRES7100 or MOLI7101) and Permiss	sion 1,	2	Research
MRES7025 Clinical Prac	4x core courses from Part A and Permis	ssion 1,	2	elective

#### MMIT courses

MOLI Courses	Pre-requisites	Semester
MOLI7101 Targets Probes	NONE	1
MOLI7102 Clinical MI	NONE	1
MOLI7103 MI Adv	MOLI7109 + MOLI7101	2
MOLI7104 Label Track	MOLI7109 + MOLI7101	2
MRES7015 Clinical Project	4x core courses from Part A and Permission	1, 2
MOLI7107 Hardwr Softwr	Restricted MMIT students	1, 2
MOLI7108 Clinical MRI	Restricted MMIT students	1, 2
MOLI7109	NONE	1
MRES7018/19/20/21/22	(MRES7100 or MOLI7101) and Permission	1, 2

# albn students association What to expect

- Monthly mixers
- Inter-institute sports events
- Board games and trivia nights
- OHS meetings
- R U okay day hot brekky
- ASAmazing race





## Questions





## Thank you

Centre for Advanced Imaging cai@enquire.uq.edu.au +61 7 336 58263



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https://www.instagram.com/explore/locations/59816406/centre-for-advanced-imaging/



https://twitter.com/UQ CAI



https://www.linkedin.com/school/the-centre-for-advanced-imaging/about/

