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

- 3T MRI
- 7T MRI
- Large Bore PET CT
- Ultrasound
- 3T MRI
Pre-clinical Imaging Facilities

- MRI
- CT
- Optical
- Radiochemistry
- Molecular probes
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
AIBN's Three Pillars of Research

- Precision nanomedicine
- Nano-engineered materials
- Advanced biomanufacturing

Facilities

- Australian National Fabrication Facility (ANFF)
- Centre for Microscopy and Microanalysis (CMM)
- StemCore
- Integrated Design Environment for Advanced biomanufacturing (IDEA Bio)
- BASE (nucleic acids biomanufacture facility)
- National Biologics Facility - Queensland Node (NBF)
- Australian Organoid Facility (AOF)
- Queensland Metabolomics and Proteomics (Q-MAP)
- Protein Expression Facility (PEF)
- In vitro Genome Engineering and Disease Modelling Service
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

CAI Education Leadership

**Academic Head of Teaching & Learning**  
MMIT Program Coordinator

A/Prof Idriss Blakey  
i.blakey@uq.edu.au

**Clinical Head of Teaching & Learning**  
MMRT Program Coordinator

Chrystal Douflias  
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MRES7025
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Course Tutors and research project supervisors

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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.SI-Net. 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 here and then follow the instructions here to apply online.
my.UQ Homepage
mySI-net Homepage
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 smp.studentadmin@uq.edu.au to remove the restrictions and request permissions.

**Error Details:**

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

**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:**

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 Academic Integrity Tutorial.
  - 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 **smp.studentadmin@uq.edu.au**

- 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.
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 1st 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 30th April – Semester 1 (Academic implications locked in):
- Last date to drop courses or cancel enrolment without academic penalty
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.
Extensions

Assessment Extensions
You must complete the online extension request form, - an email request is not sufficient.
You must provide supporting documentation for your extension request.

Deferred Examinations
Students can apply for a deferred examination 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 only one discretionary exam during the lifetime of their enrolment.
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
Faculty of Science Orientation
https://science.uq.edu.au/student-support/orientation

UQ Orientation

Getting started and Orientation

Welcome to the Faculty of Science

How to prepare for Orientation Week (O-Week) 12–16 February:

1. Work through Starting at UQ to get set up for the semester. Use the Science Study Planner to help you choose your courses.

A welcome message from UQ Science
## Student Support Information

<table>
<thead>
<tr>
<th>Icon</th>
<th>Service</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>Faculty of Science Student Team</td>
<td><a href="https://science.uq.edu.au/student-support">https://science.uq.edu.au/student-support</a></td>
</tr>
<tr>
<td>🍎</td>
<td>UQ Student Health and Wellbeing</td>
<td><a href="https://science.uq.edu.au/student-support">https://science.uq.edu.au/student-support</a></td>
</tr>
<tr>
<td>📚</td>
<td>Study Skills</td>
<td><a href="https://my.uq.edu.au/information-and-services/student-support/study-skills">https://my.uq.edu.au/information-and-services/student-support/study-skills</a></td>
</tr>
<tr>
<td>🏫</td>
<td>Contact Student Life</td>
<td><a href="https://my.uq.edu.au/contact/student-life">https://my.uq.edu.au/contact/student-life</a></td>
</tr>
<tr>
<td>📐</td>
<td>Careers and Employability</td>
<td><a href="https://employability.uq.edu.au/">https://employability.uq.edu.au/</a></td>
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</table>
Centre for Advanced Imaging Postgraduate Coursework Programs

**Magnetic Resonance Technology (MRT) Programs**

- Graduate Certificate MRT
- Graduate Diploma MRT
- Master MRT

**Master of Molecular Imaging Technology (MMIT)**

- Study planner link for MRT programs
- Study planner link for MMIT programs
Recommended Study Plans

Study planner for:
- Graduate Certificate MRT

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Complete the following study plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Semester (July – Nov) 2</td>
<td>MRES7002 Magnetic Resonance Instrumentation 2 units – Core Course</td>
</tr>
<tr>
<td>2nd Semester (July – Nov) 3</td>
<td>MRES7003 MR Safety &amp; Monitoring 2 units – Core Course</td>
</tr>
<tr>
<td>2nd Semester (Jan – Jun)  4</td>
<td>MRES7100 Magnetic Resonance Imaging: Fundamentals 2 units – Core Course</td>
</tr>
<tr>
<td>2nd Semester (Jan – Jun)  5</td>
<td>MRES7400 MRI Pulse Sequence Construction &amp; Image Contrast 2 units – Core Course</td>
</tr>
</tbody>
</table>

Study planner for:
- Graduate Diploma MRT

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Start with the base study plan outlining Core Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>1st Semester (Feb – Jun) 2</td>
<td>MRES7003 MR Safety &amp; Monitoring 2 units – Core Course</td>
</tr>
<tr>
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<td>MRES7400 MRI Pulse Sequence Construction &amp; Image Contrast 2 units – Core Course</td>
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Research option
4 Units MRES7015

Core Courses
MRES7002 can also be take in the 1st semester
# Magnetic Resonance Technology Programs

## Study planners for:
- **Master of Magnetic Resonance Technology**

### Semester 1 commencement

<table>
<thead>
<tr>
<th>Year 1</th>
<th>1st Semester (Feb–Jun)</th>
<th>2nd Semester (Jul–Nov)</th>
<th>3rd Semester (Feb–Jun)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRES7003</td>
<td>MR Safety &amp; Monitoring</td>
<td>MRES7002</td>
<td>Magnetic Resonance Instrumentation</td>
</tr>
<tr>
<td>2 units – Core Course</td>
<td>2 units – Program Elective Course</td>
<td>2 units – Core Course</td>
<td>2 units – Research Project Courses*</td>
</tr>
<tr>
<td>MRES7100</td>
<td>Magnetic Resonance Imaging: Fundamentals</td>
<td>Option</td>
<td>Option</td>
</tr>
<tr>
<td>2 units – Core Course</td>
<td>2 units – Program Elective Course</td>
<td>2 units – Program Elective Course</td>
<td>2 units – Program Elective Course</td>
</tr>
<tr>
<td>MRES7400</td>
<td>MRI Pulse Sequence Construction &amp; Image Contrast</td>
<td>Option</td>
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<td><strong>Option</strong></td>
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### 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

### 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/programs-courses/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.*
# MRT program courses

<table>
<thead>
<tr>
<th>MRES Courses</th>
<th>Pre-requisites</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRES7100 MRI Fundmtls</td>
<td>NONE</td>
<td>1, 2</td>
</tr>
<tr>
<td>MRES7002 MR Instrmnt</td>
<td>NONE</td>
<td>1, 2</td>
</tr>
<tr>
<td>MRES7003 MRI Safety</td>
<td>NONE</td>
<td>1, 2</td>
</tr>
<tr>
<td>MRES7400 Pulse Seq</td>
<td>MRES7100</td>
<td>1, 2</td>
</tr>
<tr>
<td>MRES7005 Fast Imaging</td>
<td>(MRES7100)</td>
<td>1, 2</td>
</tr>
<tr>
<td>MRES7007 Dif Perf</td>
<td>(MRES7100)</td>
<td>1</td>
</tr>
<tr>
<td>MRES7009 Spectro</td>
<td>NONE</td>
<td>1</td>
</tr>
<tr>
<td>MRES7010 Minor Ranch</td>
<td>4x core courses from Part A and Permission</td>
<td>1, 2</td>
</tr>
<tr>
<td>MRES7013 Brain Spine</td>
<td>NONE</td>
<td>2</td>
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<tr>
<td>MRES7014 MSK</td>
<td>NONE</td>
<td>1</td>
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<tr>
<td>MRES7015 Clinical Project</td>
<td>4x core courses from Part A and Permission</td>
<td>1, 2</td>
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<tr>
<td>MRES7016 Cardiac and vascular</td>
<td>MRES7100, MRES7004, MRES7005.</td>
<td>2</td>
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<tr>
<td>MRES7017 Breast</td>
<td>NONE</td>
<td>2</td>
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<tr>
<td>MRES7018/19/20/21/22</td>
<td>(MRES7100 or MOLI7101) and Permission</td>
<td>1, 2</td>
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<tr>
<td>MRES7025 Clinical Prac</td>
<td>4x core courses from Part A and Permission</td>
<td>1, 2</td>
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<tr>
<td>MRES7015 Clinical Project</td>
<td>4x core courses from Part A and Permission</td>
<td>1, 2</td>
</tr>
<tr>
<td>MOLI7107 Hardwr Softwr</td>
<td>Restricted MMIT students</td>
<td>1, 2</td>
</tr>
<tr>
<td>MOLI7108 Clinical MRI</td>
<td>Restricted MMIT students</td>
<td>1, 2</td>
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<tr>
<td>MOLI7109</td>
<td>NONE</td>
<td>1</td>
</tr>
<tr>
<td>MRES7018/19/20/21/22</td>
<td>(MRES7100 or MOLI7101) and Permission</td>
<td>1, 2</td>
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</table>

# MMIT courses

<table>
<thead>
<tr>
<th>MOLI Courses</th>
<th>Pre-requisites</th>
<th>Semester</th>
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</thead>
<tbody>
<tr>
<td>MOLI7101 Targets Probes</td>
<td>NONE</td>
<td>1</td>
</tr>
<tr>
<td>MOLI7102 Clinical MI</td>
<td>NONE</td>
<td>1</td>
</tr>
<tr>
<td>MOLI7103 MI Adv</td>
<td>MOLI7109 + MOLI7101</td>
<td>2</td>
</tr>
<tr>
<td>MOLI7104 Label Track</td>
<td>MOLI7109 + MOLI7101</td>
<td>2</td>
</tr>
<tr>
<td>MRES7015 Clinical Project</td>
<td>4x core courses from Part A and Permission</td>
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<td>1, 2</td>
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asa
AIBN Students Association (ASA)

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

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+61 7 336 58263

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