



# MTRN4093

## Mechatronic Engineering Research Thesis B

Session 1, Weekday attendance, North Ryde 2020

*School of Engineering*

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## General Information

Unit convenor and teaching staff

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Wednesday 11am-12pm

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Credit points

10

Prerequisites

20cp at 4000 level

Corequisites

MTRN4092 or MECH420

Co-badged status

Unit description

In this unit students will conduct the second half of their individual research thesis on a topic in Mechatronic Engineering major under the direction of an academic supervisor. Students will implement the previously developed project plan conducting the experimental and theoretical work to obtain results and analysis presented in the form of a final research thesis.

## Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

## Learning Outcomes

On successful completion of this unit, you will be able to:

**ULO1:** Undertake a complex engineering-specific research project.

**ULO2:** Develop new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results.

**ULO3:** Communicate research results through an effective written dissertation and oral presentation to a variety of audiences in research fora.

**ULO4:** Produce technical writing and presentations at a standard that would be acceptable in a professional engineering workplace.

**ULO5:** Identify, formulate and solve complex open-ended Mechatronic Engineering problems in an ethical manner.

**ULO6:** Apply research principles, research methods, and technical standards to identify and provide solutions to complex problems in Mechatronic Engineering.

## Assessment Tasks

### Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult [iLearn](#) for revised unit information.

[Find out more about the Coronavirus \(COVID-19\) and potential impacts on staff and students](#)

## General Assessment Information

### Grading and passing requirement for unit

In order to pass this unit a student must obtain a mark of 50 or more for the unit (i.e. obtain a passing grade P/ CR/ D/ HD).

For further details about grading, please refer below in the policies and procedures section.

### Hurdle Requirements

The thesis is a hurdle requirement. A grade of 50% or more on the thesis is a condition of passing this unit. If you are given a second opportunity to submit your thesis as a result of failing to meet the minimum mark required, your submission will be due during the supplementary examination period and will be notified of the exact day and time by the unit convenor. The second attempt at a hurdle assessment is graded as pass fail. The maximum grade for a second attempt is the hurdle threshold grade.

Regular meetings with thesis supervisor is a hurdle requirement. See details in assessment task description.

### Late submissions and Re-submissions

Late submissions will attract a penalty of 10% marks per day. Extenuating circumstances will be considered upon lodgement of a special consideration application.

Resubmissions of work are not allowed after due date.

## Delivery and Resources

### Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: [https://ask.mq.edu.au/account/pub/display/unit\\_status](https://ask.mq.edu.au/account/pub/display/unit_status)

### Unit Delivery

This is a project-based unit and has no scheduled lectures or tutorial sessions. Special lectures may be organised and related announcements will be made via iLearn.

### Logbook

This unit requires a logbook. The students should maintain an individual logbook which should contain a dated log of day-to-day activities undertaken in relation to the project.

### Technology Used and Required

The students are required to discuss with their supervisor about the software/hardware resources required for analysis, simulation, testing and experiments related to their project. In addition, word processing software (MS Word, Latex etc.) will be required to produce the preliminary thesis and MS PowerPoint or equivalent software will be required for presentation slides.

Unit Webpage: Access from the online iLearn System at <http://ilearn.mq.edu.au>

### Required and Recommended Texts/Materials

There is not set textbook for this unit. The students are required to discuss with their supervisor regarding required/recommended reading materials, as suited to individual project needs.

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)

- [Special Consideration Policy](#) (**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)

Students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/student-conduct>

## Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

## Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](https://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.