COMP7900

Research Frontiers in Computing 1

Session 1, In person-scheduled-weekday, North Ryde 2022

School of Computing

Contents

General Information

Unit convenor and teaching staff
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Credit points
10

Prerequisites
Admission to MRes

Corequisites

Co-badged status

Unit description
This unit is designed to engage students with current research in computing. It will introduce students to a number of the current open research questions across the range of the broad discipline. It is the first of a pair of such units, with the second appearing in the second year of the MRes program. This unit addresses research across the breadth of the discipline, while the second unit will focus on more particular issues related to the student's project area.

Activities may include such things as seminar attendance, directed reading of research papers, the discussion and critiquing of research topics and introduction to new practical techniques with preparatory reading, hands-on experience and a final report. Presentation of a seminar and a written report based on the topics examined are required for completion of this unit.

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: Demonstrate an understanding of research being done in the Department of Computing

ULO2: Summarize the state of art in selected disciplines of Computing

ULO3: Interpret and apply the principles of ethical conduct in selected disciplines of Computing

ULO4: Write a critical overview of a research topic

ULO5: Present a research topic orally

General Assessment Information

Late submissions **will not be accepted** without an approved Special Consideration request. Assessments submitted after the due date will receive a mark of **zero**.

Assessment Tasks

Name	Weighting	Hurdle	Due
Discussion sessions	30%	No	Weeks 4, 6, 10
Presentation 1	10%	No	Week 8
Final Report 1	25%	No	Week 8
Presentation 2	10%	No	Week 13
Final report 2	25%	No	Week 13

Discussion sessions

Assessment Type [1]: Summary
Indicative Time on Task [2]: 30 hours
Due: **Weeks 4, 6, 10**
Weighting: **30%**

After each staff seminar and in the following week there is going to be a discussion session in the class. The discussion will be based on summary reports, written by the students, of very recent papers on a topic relevant to each seminar. So, the students will submit three summary reports in total. Each summary report will be 1-2 pages long, and will be worth 5% with the remaining 5% coming from active participation in each discussion session.

On successful completion you will be able to:

• Demonstrate an understanding of research being done in the Department of Computing

• Summarize the state of art in selected disciplines of Computing

• Interpret and apply the principles of ethical conduct in selected disciplines of Computing

Presentation 1

Assessment Type [1]: Presentation
Indicative Time on Task [2]: 10 hours
Due: **Week 8**
Weighting: **10%**

The presentation of the first report in the class. The presentation should be around 10 minutes long plus 5 minutes for question time.

On successful completion you will be able to:
- Demonstrate an understanding of research being done in the Department of Computing
- Summarize the state of art in selected disciplines of Computing
- Interpret and apply the principles of ethical conduct in selected disciplines of Computing
- Present a research topic orally

Final Report 1

Assessment Type [1]: Report
Indicative Time on Task [2]: 25 hours
Due: **Week 8**
Weighting: **25%**

For a chosen topic, a student is required to submit a report of approximately 1500-2000 words

On successful completion you will be able to:
- Demonstrate an understanding of research being done in the Department of Computing
- Summarize the state of art in selected disciplines of Computing
- Interpret and apply the principles of ethical conduct in selected disciplines of Computing
- Write a critical overview of a research topic

Presentation 2

Assessment Type [1]: Presentation
Indicative Time on Task [2]: 10 hours
Due: **Week 13**
Weighting: **10%**

The presentation of the second report in the class. The presentation should be around 10 minutes long plus 5 minutes for question time.

On successful completion you will be able to:
- Demonstrate an understanding of research being done in the Department of Computing
- Summarize the state of art in selected disciplines of Computing
- Interpret and apply the principles of ethical conduct in selected disciplines of Computing
- Present a research topic orally

Final report 2

Assessment Type [1]: Report
Indicative Time on Task [2]: 25 hours

Due: **Week 13**

Weighting: **25%**

For a chosen topic, a student is required to submit a report of approximately 1500-2000 words

On successful completion you will be able to:

- Demonstrate an understanding of research being done in the Department of Computing
- Summarize the state of art in selected disciplines of Computing
- Interpret and apply the principles of ethical conduct in selected disciplines of Computing
- Write a critical overview of a research topic

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

CLASSES

Classes will be held on Wednesdays, 2-4pm in 9 Wallys Wlk - 108 Tutorial Rm.

In the classes, we will have several different types of activities:

- **Seminars** -- the unit basic component is a collection of three seminars. Each seminar is given by an academic with international research standing. The seminars are going to present both the state of art and recent developments in the three selected research areas of Computing. They will also introduce the relevant research groups and areas in the Department.
- **Final Reports and Presentations** -- there will be two final reports and two presentations based on the two final reports by the students. The first final report has to discuss a topic chosen from Seminars 1 and 2. The second final report has to discuss a different topic chosen from Seminars 1 to 3. The reports are going to be presented at two presentation sessions.
- **Discussion Sessions** -- in the week after each seminar, there will be a discussion session, based on the summary reports of a chosen paper from the seminar.
- **Regular Sessions** -- the unit may also include sessions and/or independent reading on

how to manage time, write scientific reports and how to present research results.

UNIT WEBPAGE AND TECHNOLOGY USED AND REQUIRED

- **iLearn** is going to be used as a main web server for the unit.

Unit Schedule

The following schedule is tentative. Please consult iLearn for any possible updates.

Week	Topic	Lecturer
Week 1	Welcome and Introduction	Mehmet Orgun
Week 2	Doing Postgraduate Research	Mehmet Orgun
Week 3	Seminar 1	TBA
Week 4	Discussion Session 1	Mehmet Orgun
Week 5	Seminar 2	TBA
Week 6	Discussion Session 2	Mehmet Orgun
Week 7	How to give presentations	Mehmet Orgun
	2-Week Recess	
Week 8	Presentations of the first final reports	Mehmet Orgun
Week 9	Seminar 3	TBA
Week 10	Discussion Session 3	Mehmet Orgun
Week 11	Independent reading	
Week 12	Open discussion & catchup session	Mehmet Orgun
Week 13	Presentations of the second final reports	Mehmet Orgun

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). 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
- Assessment Procedure

- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

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

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/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 or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

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

The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the 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

Macquarie University offers a range of Student Support Services including:

- IT Support

- Accessibility and disability support with study

- Mental health support

- Safety support to respond to bullying, harassment, sexual harassment and sexual assault

- Social support including information about finances, tenancy and legal issues

Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

IT Help

For help with University computer systems and technology, visit 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.