MATH3599

Professional Practice for Mathematical Sciences

Session 2, Special circumstance 2020

Department of Mathematics and Statistics

Contents

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to timetable viewer. To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff
Unit convenor & Lecturer
Catherine Penington
catherine.penington@mq.edu.au
Contact via Email
12 Wally's Walk, Room 717
Refer to iLearn

Unit convenor & Lecturer
Elena Vynogradova
elena.vynogradova@mq.edu.au
Contact via Email
12 Wally's Walk, Room 709
Refer to iLearn

Credit points
10

Prerequisites
Admission to BMathSci and 20cp from STAT or MATH units at 3000 level

Corequisites

Co-badged status

Unit description
This PACE unit integrates the concepts already learned in the mathematical and statistical sciences with a practical context whereby research problems arising from external partners allow the skills acquired to be put into practice. Students will develop solutions to problems using appropriate methods, models and/or relevant technology and software. In collaboration with industry partners and team members, reports summarising the problem, solution and interpretations will be written that demonstrate the capacity to contribute effectively as a professional mathematician and/or statistician. Ethical issues arising in professional practice will be considered and adhered to.

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: Formulate and solve real-world problems using appropriate technology, methods and/or models drawn from mathematics and statistics.

ULO2: Communicate knowledge of a given problem, solution and interpretation effectively through relevant forums and formats.

ULO3: Develop am understanding of individual employability skills as a result of engaging in real-world problems with research partners, communicating with team members and ensuring timely delivery of outcomes.

General Assessment Information

HURDLES: This unit has no hurdle requirements.

ATTENDANCE and PARTICIPATION: Please contact the unit convenor as soon as possible if you have difficulty attending and participating in any classes, including if you need to attend classes online via video call. There may be alternatives available to make up the work. If there are circumstances that mean you miss a class, you can apply for a Special Consideration.

LATE SUBMISSION OF WORK: All assignments or assessments must be submitted by the official due date and time. No marks will be given to late work unless an extension has been granted following a successful application for Special Consideration. Please contact the unit convenor for advice as soon as you become aware that you may have difficulty meeting any of the assignment deadlines. It is in your interests to make frequent submissions of your partially completed work. Note that later submissions completely replace any earlier submission, and so only the final submission made before the due date will be marked.

Assessment Tasks

Name	Weighting	Hurdle	Due
Skills checklist	5%	No	Week 2
Class discussion contributions online	10%	No	Week 12
Presentation (online)	30%	No	Week 11
PACE activity final report	55%	No	Week 13

Skills checklist

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 2 hours
Due: **Week 2**

Weighting: **5%**

Reflect on current skills and capabilities and plan your PACE activity.

On successful completion you will be able to:

- Develop am understanding of individual employability skills as a result of engaging in real-world problems with research partners, communicating with team members and ensuring timely delivery of outcomes.

Class discussion contributions online

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 0 hours
Due: **Week 12**
Weighting: **10%**

Contribute to class discussions during lecture time if possible, or afterwards via forum discussions depending on access opportunities.

On successful completion you will be able to:

- Communicate knowledge of a given problem, solution and interpretation effectively through relevant forums and formats.
- Develop am understanding of individual employability skills as a result of engaging in real-world problems with research partners, communicating with team members and ensuring timely delivery of outcomes.

Presentation (online)

Assessment Type [1]: Presentation
Indicative Time on Task [2]: 20 hours
Due: **Week 11**
Weighting: **30%**

Presentation on the use of mathematics in the real world (discussing PACE activity is recommended) given via online platform.

On successful completion you will be able to:

- Formulate and solve real-world problems using appropriate technology, methods and/or models drawn from mathematics and statistics.
- Communicate knowledge of a given problem, solution and interpretation effectively through relevant forums and formats.

PACE activity final report

Assessment Type [1]: Reflective Writing
Indicative Time on Task [2]: 42 hours
Due: **Week 13**
Weighting: **55%**

A reflection on your PACE activity.

On successful completion you will be able to:

- Formulate and solve real-world problems using appropriate technology, methods and/or models drawn from mathematics and statistics.
- Communicate knowledge of a given problem, solution and interpretation effectively through relevant forums and formats.
- Develop am understanding of individual employability skills as a result of engaging in real-world problems with research partners, communicating with team members and ensuring timely delivery of outcomes.

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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

MATH3599 is co-taught with MATH3919 this session.

MATH3919 is available through internal (on campus) mode only, modified due to special circumstances. The unit involves a series of workshops/seminars (available online if necessary due to current special circumstances) and a PACE activity. Students should note that the

required activities for MATH3919 will vary from week to week depending on the nature of the delivery (in- class or online) and the timing of the PACE activity. Please refer to the unit schedule throughout the semester to confirm delivery mode (i.e. in class or online) at any given time. If there are any changes the convenor will contact the students via email. When in class workshops are carried out (Note: the hours associated with the PACE activity will be scheduled separately) they will be held as follows:

THURSDAYS, 12:00 - 14:00 in 4 Western Rd, Room 334

The PACE activity will take place over 10 working days during the session, which may be consecutively during the mid-session break or separately throughout the semester. Students are encouraged to find their own activity with support from the PACE team. Some placements may be available through the PACE team for students who cannot find their own activity. Under the current special circumstance, all PACE activities for MATH3919 are expected to take place online.

PACE units in Science and Engineering, their Unit Convenors, and their students, are supported by a PACE Team within the Faculty. Throughout the unit offering, members of the Team may be in contact with students to provide or collect information. If you have any questions about PACE in Science and Engineering, please

email: pace.science@mq.edu.au or visit the following webpages: https://students.mq.edu.au/experience/practical-experience/pace-experience/ how- do-i-start/pace-in-the-faculty-of-science-and-engineering

If you require more information about PACE in general or access to forms such as those for the PACE Travel Grants, please go to:

https://students.mq.edu.au/experience/practical-experience/pace-experience

Unit Schedule

Week	Class
Week 1	Introductions and Skills Checklist
Week 2	Applying for jobs (and PACE activities)
Week 3	STEM Careers (to be confirmed)
Week 4	*No class*
Week 5	Reflecting on work
Week 6	*No class*
Week 7	Ethics in the workplace
Week 8	*No class*
Week 9	Communicating mathematics with non-mathematicians
Week 10	*No class*

Week 11	Presentations
Week 12	Presentations, continued

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). 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). 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 (https://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 or if you are a Global MBA student contact 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) 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

If you are a Global MBA student contact 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/.

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.