



BIOL1620

Foundation in Life Sciences

Session 1, Special circumstances, North Ryde 2021

Archive (Pre-2022) - Department of Biological Sciences

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Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face 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

First Year Teaching Coordinator

Kate Barry

biol1620@mq.edu.au

Fleur Ponton

fleur.ponton@mq.edu.au

Credit points

10

Prerequisites

Corequisites

Co-badged status

Unit description

This unit provides foundation skills required for working in medical and life sciences laboratories. Skills will be learnt in the context of current global health issues including antimicrobial resistance and malaria, health reporters such as immunity and haematology and approaches to disease diagnosis. Students will acquire hands-on laboratory skills, including aseptic technique for microbiology, use of microscopes and spectrophotometers, extraction of bioactive molecules, and data collection and analyses. Students will hear from medical and life science researchers who will provide context for the weekly skills topics and information on the diverse employment areas in medical science. Students also begin to acquire skills in interpreting and citing scientific literature and developing a foundation in communication skills and scientific writing.

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: Articulate and practice appropriate health, safety and ethical standards relevant to medical science

ULO2: Describe global health issues of significance to society today using appropriate

scientific terminology

ULO3: Develop and demonstrate competencies in standard laboratory techniques (e.g. dilutions, aseptic technique, imagery and measurement, labelling, diagnostic sample preparation)

ULO4: Describe and practice scientific methods from generating hypotheses and predictions to designing experimental procedures, and undertaking data collection

ULO5: Develop competency in working individually or as a team in the laboratory and tutorials

General Assessment Information

UNIT COMPLETION REQUIREMENTS

1. Overall mark of 50% or above
2. Submit all assessments and attend all exams
3. Participate in 80% of practicals and tutorials

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Participation in pracs & tutes</u>	0%	No	Weekly
<u>Lab/Tute Prep Activities</u>	10%	No	Weekly on Monday @ 11am
<u>Mid-term quiz test</u>	15%	No	During prac session (Week 6)
<u>Mid-term practice-based exam</u>	30%	No	During prac session (Week 6)
<u>Final quiz test</u>	15%	No	During prac session (Week 12)
<u>Final practice-based exam</u>	30%	No	During prac session (Week 12)

Participation in pracs & tutes

Assessment Type ¹: Participatory task

Indicative Time on Task ²: 0 hours

Due: **Weekly**

Weighting: **0%**

Attendance at, and participation in, weekly practicals and tutorials is compulsory. Participation will be demonstrated by actively undertaking the experiments, and will be recorded. Students may be able to attend a make-up class, or else a Special Consideration request must be submitted.

On successful completion you will be able to:

- Articulate and practice appropriate health, safety and ethical standards relevant to medical science
- Describe global health issues of significance to society today using appropriate scientific terminology
- Develop and demonstrate competencies in standard laboratory techniques (e.g. dilutions, aseptic technique, imagery and measurement, labelling, diagnostic sample preparation)
- Describe and practice scientific methods from generating hypotheses and predictions to designing experimental procedures, and undertaking data collection
- Develop competency in working individually or as a team in the laboratory and tutorials

Lab/Tute Prep Activities

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 6 hours

Due: **Weekly on Monday @ 11am**

Weighting: **10%**

Students will be provided with pre-prac information and need to complete a quiz / short written piece before each class (45min x 8 assessment activities).

On successful completion you will be able to:

- Articulate and practice appropriate health, safety and ethical standards relevant to medical science
- Describe global health issues of significance to society today using appropriate scientific terminology
- Describe and practice scientific methods from generating hypotheses and predictions to designing experimental procedures, and undertaking data collection
- Develop competency in working individually or as a team in the laboratory and tutorials

Mid-term quiz test

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 15 hours

Due: **During prac session (Week 6)**

Weighting: **15%**

The mid-term exam has a quiz-based section where students will be tested on their knowledge.

On successful completion you will be able to:

- Articulate and practice appropriate health, safety and ethical standards relevant to medical science
- Describe global health issues of significance to society today using appropriate scientific terminology
- Develop and demonstrate competencies in standard laboratory techniques (e.g. dilutions, aseptic technique, imagery and measurement, labelling, diagnostic sample preparation)
- Describe and practice scientific methods from generating hypotheses and predictions to designing experimental procedures, and undertaking data collection

Mid-term practice-based exam

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 20 hours

Due: **During prac session (Week 6)**

Weighting: **30%**

The mid-term exam has a practice-based section where students will be tested on their lab skills.

On successful completion you will be able to:

- Articulate and practice appropriate health, safety and ethical standards relevant to medical science
- Describe global health issues of significance to society today using appropriate scientific terminology
- Develop and demonstrate competencies in standard laboratory techniques (e.g. dilutions, aseptic technique, imagery and measurement, labelling, diagnostic sample preparation)
- Describe and practice scientific methods from generating hypotheses and predictions to designing experimental procedures, and undertaking data collection

Final quiz test

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 15 hours

Due: **During prac session (Week 12)**

Weighting: **15%**

The final exam has a quiz-based section where students will be tested on their knowledge.

On successful completion you will be able to:

- Articulate and practice appropriate health, safety and ethical standards relevant to medical science
- Describe global health issues of significance to society today using appropriate scientific terminology
- Develop and demonstrate competencies in standard laboratory techniques (e.g. dilutions, aseptic technique, imagery and measurement, labelling, diagnostic sample preparation)
- Describe and practice scientific methods from generating hypotheses and predictions to designing experimental procedures, and undertaking data collection

Final practice-based exam

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 20 hours

Due: **During prac session (Week 12)**

Weighting: **30%**

The final exam has a practice-based section where students will be tested on their lab skills.

On successful completion you will be able to:

- Articulate and practice appropriate health, safety and ethical standards relevant to medical science
- Describe global health issues of significance to society today using appropriate scientific terminology
- Develop and demonstrate competencies in standard laboratory techniques (e.g. dilutions, aseptic technique, imagery and measurement, labelling, diagnostic sample

preparation)

- Describe and practice scientific methods from generating hypotheses and predictions to designing experimental procedures, and undertaking data collection

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

Lectures: 1-hour lecture that cover hot topics in Health & Disease, presented weekly. Lectures are pre-recorded and will be uploaded to Echo360 in iLearn.

Tutorials: 1-hour tutorial per week, held online via Zoom.

Practicals: 2-hours per week, held in the 06WW labs.

Unit Schedule

1-hour pre-recorded lecture via Echo360, 1-hour online tutorial via Zoom, 2-hour practicals held in 06WW labs.

Tute options:

Monday	09:00am
Monday	10:00am
Monday	11:00am
Tuesday	09:00am
Tuesday	10:00am
Tuesday	11:00am

Prac options:

Monday	11:30am
Monday	14:00pm
Tuesday	09:00am
Tuesday	11:30am

Tuesday

14:00pm

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](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](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](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 \(https://policies.mq.edu.au\)](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

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.