BIOX3130

Ecology and Evolution of Emerging Infectious Diseases

Session 2, In person-scheduled-infrequent, North Ryde 2024

School of Natural Sciences

Contents

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General Information

Unit convenor and teaching staff Michelle Power michelle.power@mq.edu.au
Credit points 10
Prerequisites 40cp at 2000 level
Corequisites
Co-badged status BIOL31310 Infrequent
Unit description

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: Identify emerging infectious diseases of significance to Australia, our region and the world.

ULO2: Define the principles of emergence and the re-emergence of infectious diseases within the One Health framework.

ULO3: Explain disease transmission theory including pathogen dynamics, host response, pathogen spread within a single species and between species, and zoonoses.

ULO4: Apply molecular laboratory skills to detect pathogens in populations and track origins of infection.

ULO5: Analyse and interpret disease notification data.

ULO6: Evaluate the authenticity of emerging infectious disease information in the public domain.

General Assessment Information

Unit completion

To pass this unit students need to:

- Achieve an overall minimum grade of 50% attained through the combined marks of three assessments

Assessment Submission

- Assessments must be submitted via iLearn by 11:55 pm on their due date.
- A 1-hour grace period will be provided to students who experience a technical concern.
- Universal design applies to all assessments and there are no time-sensitive assessments in this unit.
- All assessments are set at the start of the unit enabling ample time for completion.

Late Assessment Submission

- Late assessments are not accepted in this unit unless a Special Consideration has been submitted and approved.

Special Consideration

The Special Consideration Policy aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through https://ask.mq.edu.au/

Assessment Tasks

Name	Weighting	Hurdle	Due
Emerging Infections in the Media (Print, Film/TV or radio)	30%	No	2024-09-01
Outbreak investigations	40%	No	2024-10-13
Conversation style article	30%	No	2024-10-27

Emerging Infections in the Media (Print, Film/TV or radio)

Assessment Type [1]: Presentation
Indicative Time on Task [2]: 20 hours
Due: **2024-09-01**
Weighting: **30%**

Students will deliver a presentation addressing emerging infectious disease portrayal in the media (Print, Film/TV or radio) and apply their scientific knowledge to disentangle incorrect scientific information covered in selected media and identify correct information.

On successful completion you will be able to:

- Identify emerging infectious diseases of significance to Australia, our region and the world.
- Explain disease transmission theory including pathogen dynamics, host response, pathogen spread within a single species and between species, and zoonoses.
- Evaluate the authenticity of emerging infectious disease information in the public domain.

Outbreak investigations

Assessment Type [1]: Case study/analysis
Indicative Time on Task [2]: 35 hours
Due: **2024-10-13**
Weighting: **40%**

Students will prepare a case study report based on data collected in block practical class.

On successful completion you will be able to:

- Explain disease transmission theory including pathogen dynamics, host response, pathogen spread within a single species and between species, and zoonoses.
- Apply molecular laboratory skills to detect pathogens in populations and track origins of infection.
- Analyse and interpret disease notification data.

Conversation style article

Assessment Type [1]: Professional writing
Indicative Time on Task [2]: 30 hours
Due: **2024-10-27**
Weighting: **30%**

Students will write an article in the style of The Conversation, based on one of a list of provided peer-reviewed papers on Emerging Infectious Disease.

On successful completion you will be able to:

- Identify emerging infectious diseases of significance to Australia, our region and the world.
- Define the principles of emergence and the re-emergence of infectious diseases within the One Health framework.
- Explain disease transmission theory including pathogen dynamics, host response, pathogen spread within a single species and between species, and zoonoses.

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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

- Seminars begin in week 1
- SGTAs for BIOX3130 are completed in block with BIOL3130 Infrequent - refer to iLearn for dates
- Practical classes occur in September over three dats - refer to iLearn for dates and locations

Methods of Communication

- We will communicate with you via your university email and through announcements on iLearn.
- Queries to convenors can either be placed on the iLearn discussion board - this is preferable for queries that directly relate to unit content, unit activities, or assessments. Queries can also be sent via email to the unit email BIOL3130@mq.edu.au.
- Email unit convenors directly for more serious matters of an individual nature and that do not directly relate to unit content, unit activities, or assessments.

Learning and Teaching model

BIOL3130 is delivered in a flipped classroom mode where students undertake small group activities in SGTAs. Some SGTAs require completion of tasks before weekly SGTAs to ensure

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 connect.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 Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the Service Connect Portal, 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.

Unit information based on version 2024.01R of the Handbook