

# HSYP817

# **Public Health Informatics**

S1 Day 2019

Medicine and Health Sciences Faculty level units

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#### Disclaimer

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### **General Information**

Unit convenor and teaching staff

**Unit Convenor** 

Amalie Dyda

amalie.dyda@mq.edu.au

Contact via amalie.dyda@mq.edu.au

75 Talavera Rd

By appointment only

Credit points

4

Prerequisites

Admission to MPH

Corequisites

Co-badged status

Unit description

This unit will provide you with the knowledge and skills to navigate new and emerging technologies and their implementation in public health. The primary focus will be informatics; the application of new information sources, computer science, and technology to public health practice. The unit will comprise three core components: 1. Public Health Informatics 2. Evaluation 3. Safety and ethics

## Important Academic Dates

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

# **Learning Outcomes**

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

Demonstrate an understanding of basic Public Health Informatics.

Demonstrate the ability to interpret results from Public Health Informatics studies, with considerations of the limitations.

Demonstrate the ability to evaluate a new health technology intervention.

Describe the safety and ethics associated with the use of new technologies in public health.

Demonstrate critical thinking and problem solving skills in relation to a health system

problem and identify solutions.

### **General Assessment Information**

Information concerning Macquarie University's assessment policy is available at <a href="http://mq.edu.au/policy/docs/assessment/policy\_2016.html">http://mq.edu.au/policy/docs/assessment/policy\_2016.html</a>. Grade descriptors and other information concerning grading requirements are contained in Schedule 1 of the Macquarie University Assessment Policy.

To pass this unit, students must demonstrate sufficient evidence of achievement of the learning outcomes and attempt all assessment tasks.

Further details for each assessment task will be available on iLearn, including marking rubrics.

All final grades in the department of Health Systems and Populations are determined by a grading committee and are not the sole responsibility of the Unit Convenor.

Students will be awarded one of these grades plus a Standardised Numerical Grade (SNG). The SNG is not necessarily a summation of the individual assessment components. The final grade and SNG that are awarded reflect the corresponding grade descriptor in Schedule 1 of the Assessment Policy.

#### **Extensions for Assessment tasks**

Applications for assessment task extensions must be submitted via <a href="www.ask.mq.edu.au">www.ask.mq.edu.au</a>. For further details please refer to the Disruption to Studies Policy available at <a href="https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/disruption-to-studies.">https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/disruption-to-studies.</a>

#### Late Submission of Work

All assignments which are officially received after the due date, and where no extension has been granted by the course convenor or tutor, will incur a deduction of 5% for the first day including the actual day on which the work is received, and 5% for each subsequent day. Weekends and public holidays are included. For example:

Due date	Received	Days late	Deduction	Raw mark	Final mark
Friday 14th	Saturday 15th	1	5%	75%	70%
Friday 14th	Monday 17th	3	15%	75%	60%

### **Assessment Tasks**

Name	Weighting	Hurdle	Due
Online Quiz	10%	No	Week 4
Major Project- Part A	10%	No	Week 6
Major Project- Part B	40%	No	Week 8
Full Day Workshop	10%	No	week 11
Written Assignment	30%	No	Week 13
Reflection	0%	No	Week 15

### Online Quiz

Due: Week 4
Weighting: 10%

'Introductory principles for public health informatics and Al'

On successful completion you will be able to:

• Demonstrate an understanding of basic Public Health Informatics.

### Major Project- Part A

Due: Week 6
Weighting: 10%

The application of technology in public health- outline of case study

On successful completion you will be able to:

- Demonstrate an understanding of basic Public Health Informatics.
- Demonstrate the ability to interpret results from Public Health Informatics studies, with considerations of the limitations.
- Describe the safety and ethics associated with the use of new technologies in public health.
- Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

## Major Project- Part B

Due: Week 8

Weighting: 40%

The application of technology in public health- Final report

On successful completion you will be able to:

- Demonstrate an understanding of basic Public Health Informatics.
- Demonstrate the ability to interpret results from Public Health Informatics studies, with considerations of the limitations.
- Describe the safety and ethics associated with the use of new technologies in public health.
- Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

# Full Day Workshop

Due: week 11 Weighting: 10%

Public Health Informatics case study workshop participation

On successful completion you will be able to:

- Demonstrate an understanding of basic Public Health Informatics.
- Demonstrate the ability to interpret results from Public Health Informatics studies, with considerations of the limitations.
- Describe the safety and ethics associated with the use of new technologies in public health.
- Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

# Written Assignment

Due: Week 13 Weighting: 30%

Evaluation of a technology in health intervention

On successful completion you will be able to:

- Demonstrate an understanding of basic Public Health Informatics.
- Demonstrate the ability to interpret results from Public Health Informatics studies, with considerations of the limitations.
- Demonstrate the ability to evaluate a new health technology intervention.
- Describe the safety and ethics associated with the use of new technologies in public

health.

 Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

#### Reflection

Due: Week 15 Weighting: 0%

Reflection exercise to consolidate your learning from Public Health Informatics, including the importance of informatics and unique aspects of evaluation methods

On successful completion you will be able to:

• Demonstrate the ability to evaluate a new health technology intervention.

# **Delivery and Resources**

#### **Unit Organisation**

This is a four credit point unit run over a 13 week session. There are lectures, online weeks and supplementary online information and activities. Further information is available via the HSYP817 online Learning Management System (LMS) iLearn <a href="http://ilearn.mq.edu.au">http://ilearn.mq.edu.au</a>

#### **Attendance**

All lectures are scheduled in your individual timetable. In most cases lectures are recorded however, attendance is expected at lectures, as this is where the majority of learning occurs. Failure to attend may impact your final results. It is the responsibility of the student to contact their tutor by email to inform tutors if they are going to be absent. The timetable for classes can be found on the University web site at: http://www.timetables.mq.edu.au/.

#### **Textbooks**

Two textbooks are recommended but not required for this unit. Copies will be held in library reserve.

Guide to Health Informatics

3rd edition

Author: Enrico Coiera

ISBN 9781444170498

Public Health Informatics and Information Systems

2nd edition

Editors: J A Magnuson; Paul C Fu, Jr

ISBN 9781447142379

#### Readings

The readings for each week will be listed in ilearn using the Leganto system. Leganto is a new reading list management system, which you can access through your iLearn unit. For further information to understand and navigate your unit reading lists in Leganto, check this guide: <a href="https://libguides.mq.edu.au/leganto">htt</a>. <a href="https://libguides.mq.edu.au/leganto">htt</a>. <a href="https://libguides.mq.edu.au/leganto">htt</a>. <a href="https://libguides.mq.edu.au/leganto">htt</a>.

Readings marked as 'required' are those that are essential to be completed for that week. Some readings may be included within a weeks readings that are marked as 'recommended' or 'secondary sources'. These are there for your recommended reading or for where we have sourced additional material that may be of interest to you. Please use these at your discretion.

#### **Technology and equipment**

#### On-campus

Teaching rooms are equipped with state of art audio-visual and ICT equipment including iPads, internet connection, high quality video cameras and multiple LCD screens.

#### Off-campus

To study optimally when off campus you will need to have access to a reliable internet connection to retrieve unit information & at times to submit assessment tasks via iLearn.

### **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (https://staff.m.g.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.)

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (htt

ps://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 <a href="mailto:eStudent">eStudent</a>, (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 <a href="mailto:eStudent">eStudent</a>. For more information visit <a href="mailto:ask.mq.edu.au">ask.mq.edu.au</a> or if you are a Global MBA student contact <a href="mailto:globalmba.support@mq.edu.au">globalmba.support@mq.edu.au</a>

## Student Support

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

#### Learning Skills

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

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

# Student Services and Support

Students with a disability are encouraged to contact the <u>Disability Service</u> 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 <a href="http://www.mq.edu.au/about\_us/">http://www.mq.edu.au/about\_us/</a> 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.

# **Graduate Capabilities**

# PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

#### Learning outcomes

- Describe the safety and ethics associated with the use of new technologies in public health
- Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

#### **Assessment tasks**

- Full Day Workshop
- · Written Assignment
- Reflection

### PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

### Learning outcomes

- Demonstrate an understanding of basic Public Health Informatics.
- Demonstrate the ability to interpret results from Public Health Informatics studies, with considerations of the limitations.
- Demonstrate the ability to evaluate a new health technology intervention.
- Describe the safety and ethics associated with the use of new technologies in public health.
- Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

#### Assessment tasks

Online Quiz

- · Major Project- Part A
- · Major Project- Part B
- · Full Day Workshop
- · Written Assignment

# PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

### Learning outcomes

- Demonstrate the ability to interpret results from Public Health Informatics studies, with considerations of the limitations.
- Demonstrate the ability to evaluate a new health technology intervention.
- Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

#### Assessment tasks

- Major Project- Part A
- Full Day Workshop
- · Written Assignment

### PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

### **Learning outcomes**

- Demonstrate the ability to evaluate a new health technology intervention.
- Demonstrate critical thinking and problem solving skills in relation to a health system problem and identify solutions.

#### Assessment tasks

· Major Project- Part A

- · Major Project- Part B
- · Full Day Workshop
- · Written Assignment

#### PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

### Learning outcomes

- Demonstrate the ability to evaluate a new health technology intervention.
- Describe the safety and ethics associated with the use of new technologies in public health.

#### Assessment tasks

- Online Quiz
- · Major Project- Part A
- · Major Project- Part B
- Full Day Workshop
- Written Assignment
- Reflection

# PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

### Learning outcome

 Describe the safety and ethics associated with the use of new technologies in public health.

#### Assessment tasks

- · Written Assignment
- Reflection