



# PHTY8100

## Applied Sciences for Physiotherapy A

Session 2, Special circumstance, North Ryde 2020

*Department of Health Professions*

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#### **Disclaimer**

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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 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

Convenor, Lecturer, Tutor

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Lecturer, Tutor

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Lecturer

Taryn Jones

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### Credit points

10

### Prerequisites

Admission to DPT

### Corequisites

### Co-badged status

### Unit description

This unit will build upon your prerequisite and assumed knowledge with a focus on exercise science and the cardiorespiratory system in the context of physiotherapy. You will examine the physiological responses and adaptations to inactivity, physical activity and exercise training. Comparisons in exercise response and adaptations to training will be made in healthy individuals and those with impairments in cardiorespiratory fitness. You will acquire skills in exercise testing and exercise prescription required for physiotherapy practice. Additionally, this unit will provide you with an introduction to physiotherapy assessment and management of cardiorespiratory impairments.

## 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:** Explain the range of physiological responses to exercise and exercise training in different population groups including healthy individuals and those with common health conditions. (Scientist and Scholar)

**ULO2:** Discuss the principles of exercise testing and a person-centred approach to exercise prescription including strategies to promote participation that considers an individual's impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)

**ULO3:** Competently select, perform and interpret tests commonly used in physiotherapy practice to assess exercise capacity and cardiorespiratory fitness in individuals who are either active or sedentary as well as those with common health conditions. (Clinical Practitioner)

**ULO4:** Design and progress an evidence-based exercise program to optimise an individual's health and wellbeing that considers their impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)

**ULO5:** Competently assess breathing and provide safe and effective treatment for common cardiorespiratory impairments. (Clinical Practitioner)

## General Assessment Information

### General Assessment Information

Information concerning Macquarie University's assessment policy is available at [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](http://mq.edu.au/policy/docs/assessment/policy_2016.html). 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. Further details for each assessment task will be available on iLearn, including marking rubrics.

All final grades in the Faculty of Medicine and Health Sciences are determined by the Faculty of Medicine and Health Sciences Assessment Committee, and are approved by the Faculty Board. They are not the sole responsibility of the Unit Convenor. Students will be awarded an Assessment Grade 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.

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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. If there is a lack of sufficient evidence demonstrating that a student has met the required level of achievement in all learning outcomes they will be awarded a Fail grading with an assigned mark of 49 or less.

### Extensions for Assessment Tasks

Applications for assessment task extensions must be submitted via [www.ask.mq.edu.au](http://www.ask.mq.edu.au). For further details please refer to the Special Considerations Policy available at <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

### Late Submission of Work

All assignments which are officially received after the due date, and where no extension has been granted by the unit convenor or course director, will incur a deduction of 10% for the first day, and 10% for each subsequent day including the actual day on which the work is received. Assessments received 5 days or more beyond the due date, without an approved extension, will be awarded a maximum of 50% of the overall assessment marks. Weekends and public holidays are included. For example:

Due Date	Received	Days Late	Deduction	Raw Mark	Final Mark
Friday, 14th	Monday, 17th	3	30%	75%	45%

### Hurdle Assessment

A hurdle requirement is an activity for which a minimum level of performance or participation is a condition of passing the unit in which it occurs. A student who has obtained a SNG over 50, yet failed the hurdle assessment, fails the unit. Please see Macquarie University's assessment policy for more information about hurdle assessment tasks.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Online Quiz 1</a>	20%	No	Week 5
<a href="#">Online Quiz 2</a>	20%	No	Week 9
<a href="#">Clinical simulation exam</a>	30%	No	Week 14/15/16
<a href="#">Viva exam</a>	30%	No	Week 14/15/16
<a href="#">Mastery register</a>	0%	Yes	Week 14

## Online Quiz 1

Assessment Type <sup>1</sup>: Quiz/Test

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **Week 5**

Weighting: **20%**

The quiz will include short-answer questions on unit content delivered up to the end of the week prior to the quiz.

On successful completion you will be able to:

- Explain the range of physiological responses to exercise and exercise training in different population groups including healthy individuals and those with common health conditions. (Scientist and Scholar)
- Discuss the principles of exercise testing and a person-centred approach to exercise prescription including strategies to promote participation that considers an individual's impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)

## Online Quiz 2

Assessment Type <sup>1</sup>: Quiz/Test

Indicative Time on Task <sup>2</sup>: 12 hours

Due: **Week 9**

Weighting: **20%**

The quiz will include short-answer questions on unit content delivered up to the end of the week prior to the quiz.

On successful completion you will be able to:

- Explain the range of physiological responses to exercise and exercise training in different population groups including healthy individuals and those with common health conditions. (Scientist and Scholar)
- Discuss the principles of exercise testing and a person-centred approach to exercise prescription including strategies to promote participation that considers an individual's impairments, goals and preferences, as well as their social, behavioural and cultural

background. (Clinical Practitioner)

- Competently select, perform and interpret tests commonly used in physiotherapy practice to assess exercise capacity and cardiorespiratory fitness in individuals who are either active or sedentary as well as those with common health conditions. (Clinical Practitioner)
- Competently assess breathing and provide safe and effective treatment for common cardiorespiratory impairments. (Clinical Practitioner)

## Clinical simulation exam

Assessment Type <sup>1</sup>: Clinical performance evaluation

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Week 14/15/16**

Weighting: **30%**

The clinical simulation exam involves both practical demonstration of cardiorespiratory assessment and treatment, as well as a viva component.

On successful completion you will be able to:

- Explain the range of physiological responses to exercise and exercise training in different population groups including healthy individuals and those with common health conditions. (Scientist and Scholar)
- Discuss the principles of exercise testing and a person-centred approach to exercise prescription including strategies to promote participation that considers an individual's impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)
- Competently select, perform and interpret tests commonly used in physiotherapy practice to assess exercise capacity and cardiorespiratory fitness in individuals who are either active or sedentary as well as those with common health conditions. (Clinical Practitioner)
- Design and progress an evidence-based exercise program to optimise an individual's health and wellbeing that considers their impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)
- Competently assess breathing and provide safe and effective treatment for common cardiorespiratory impairments. (Clinical Practitioner)

## Viva exam

Assessment Type <sup>1</sup>: Viva/oral examination

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Week 14/15/16**

Weighting: **30%**

During the viva exam you will be asked questions about your understanding and application of the fundamental knowledge related to physiotherapy assessment and management that has been covered in this unit.

On successful completion you will be able to:

- Explain the range of physiological responses to exercise and exercise training in different population groups including healthy individuals and those with common health conditions. (Scientist and Scholar)
- Discuss the principles of exercise testing and a person-centred approach to exercise prescription including strategies to promote participation that considers an individual's impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)
- Competently select, perform and interpret tests commonly used in physiotherapy practice to assess exercise capacity and cardiorespiratory fitness in individuals who are either active or sedentary as well as those with common health conditions. (Clinical Practitioner)
- Design and progress an evidence-based exercise program to optimise an individual's health and wellbeing that considers their impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)
- Competently assess breathing and provide safe and effective treatment for common cardiorespiratory impairments. (Clinical Practitioner)

## Mastery register

Assessment Type <sup>1</sup>: Clinical performance evaluation

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **Week 14**

Weighting: **0%**

**This is a hurdle assessment task (see [assessment policy](#) for more information on hurdle assessment tasks)**

The mastery register for PHTY8100 is a list of key skills in which competence is considered to be a requirement for the assurance of quality physiotherapy practice for registration. You must demonstrate a minimum level of competence in these skills as a condition of passing this unit by achieving 60% completion of the mastery register in order to successfully complete the unit.

On successful completion you will be able to:

- Discuss the principles of exercise testing and a person-centred approach to exercise prescription including strategies to promote participation that considers an individual's impairments, goals and preferences, as well as their social, behavioural and cultural background. (Clinical Practitioner)
- Competently select, perform and interpret tests commonly used in physiotherapy practice to assess exercise capacity and cardiorespiratory fitness in individuals who are either active or sedentary as well as those with common health conditions. (Clinical Practitioner)
- Competently assess breathing and provide safe and effective treatment for common cardiorespiratory impairments. (Clinical Practitioner)

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<sup>1</sup> 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.

<sup>2</sup> 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**

### **Unit Organisation**

This is a ten credit point unit run over a 13 week session. Each week there is a 2 hour online lecture and a 1.5-2 hour tutorial. Further information is available via the PHTY8100 iLearn site <http://ilearn.mq.edu.au>

### **Assumed knowledge**

This unit assumes that you have comprehensive knowledge of anatomy and physiology.

### **Teaching and Learning Strategy**



This unit will have a 2 hour online lecture and a 1.5-2 hour tutorial every week. Lectures will provide foundation knowledge and may also use demonstrations. Tutorials will alternate between online delivery (1.5 hours) and face-to-face delivery (2 hours). You will be able to use tutorials to practice observation, assessment and prescription of programs to improve performance of everyday activities and breathing. The teaching approach will be based on you developing a deep understanding of principles and the ability to independently solve problems, with the expectation that you can then translate this knowledge to different scenarios (e.g. patients with similar activity limitations but different diagnoses).

## **Textbooks & Readings**

### Essential

This unit does not have any textbooks that are essential for you to purchase.

### Recommended

Recommended readings for this accessible through Leganto.

The following text will be a useful resource and available in the library reserve and as an e-book. Recommendations about specific readings from these and other resources (such as research papers, books, websites and videos) will be listed on iLearn.

- *Main and Denehy (2016) Cardiorespiratory Physiotherapy: Adults and Paediatrics (5th Ed). Elsevier Health Sciences.*

The following exercise physiology text is **strongly recommended**, however if you have a similar text from previous studies that is fine. Copies will be held in library reserve and also available as an e-book.

- *Powers SK and Howley ET (2018) Exercise physiology: Theory and application to Fitness and Performance (10<sup>th</sup> Edition) New York: McGraw Hill*

## **Attendance**

In the Faculty of Medicine, Health and Human Sciences professionalism is a key capability embedded in all our programs. As part of developing professionalism, Faculty of Medicine, Health and Human Sciences you are expected to attend face-to-face tutorials. Lectures will be pre-recorded and available to students via the recording system online. It is expected that you will listen to all recorded lectures.

All lectures and tutorials are scheduled in your individual timetable. The timetable for classes can be found on the University web site at: <http://www.timetables.mq.edu.au/>. You may make a request to your tutor to attend a different tutorial on a one-off basis for extenuating circumstances.

Failure to attend any learning and teaching activities may impact your final results. It is the responsibility of the student to contact their tutor or the unit convenor by email to inform tutors if they are going to be absent.

## 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. You will use a range of physiotherapy specific equipment typically used in the assessment and management of people with a range of health conditions.

### Off-campus

Should you choose to work off campus you will need to have access to a reliable internet connection in order to retrieve unit information, listen to lectures, attend online tutorials, &, at times, to submit assessment tasks via iLearn.

**Consultation with staff:** Staff may be available for individual consultations, please see iLearn site for information on staff availability for consultation.

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](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 \(https://students.mq.edu.au/support/study/student-policy-gateway\)](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 \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](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](mailto:ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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](http://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](mailto:ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/](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.

## Changes from Previous Offering

Due to COVID-19, this is a special circumstance offering of PHTY8100. Delivery of content and

assessment has been modified to optimise online teaching and learning. Therefore, all lectures will be delivered online, as well as approximately 50% of tutorials. Additionally, assessment for this iteration will include two quizzes, a clinical simulation exam and a viva exam.