

Profile information current as at 18/04/2024 05:00 am

All details in this unit profile for ESSC12001 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

## **General Information**

## Overview

This unit examines responses and adaptations of various physiological body systems to exercise. Specifically, you will learn the physiological mechanisms underpinning acute and chronic changes in the metabolic, pulmonary, cardiovascular, endocrine, and neuromuscular systems as a response to exercise. Furthermore, you will learn how physiological function relating to exercise changes across the lifespan and in different environments. You will also develop practical skills in conducting and interpreting laboratory and field tests assessing physiological function, fitness, and performance.

## **Details**

Career Level: Undergraduate

Unit Level: Level 2 Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

# Pre-requisites or Co-requisites

Pre-requisites For CG85 Bachelor of Exercise and Sport Sciences students: BMSC11001 Human Body Systems 1 AND BMSC11002 Human Body Systems 2 AND ESSC11001 Physical Activity, Fitness and Health For CG93 Bachelor of Medical Science students: BMSC11001 Human Body Systems 1 AND BMSC11002 Human Body Systems 2 For CB85 Bachelor of Physiotherapy students: BMSC11007 Medical Anatomy and Physiology 1 AND BMSC11008 Medical Anatomy and Physiology 2 For CC13 Bachelor of Education (Secondary) students: ESSC11001 Physical Activity, Fitness and Health AND ESSC11003 Skill Acquisition and Movement

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the <a href="Assessment Policy and Procedure (Higher Education Coursework)">Assessment Policy and Procedure (Higher Education Coursework)</a>.

# Offerings For Term 1 - 2023

- Cairns
- Mackay City
- Mixed Mode
- Rockhampton

# Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

## Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are: Click here to see your Residential School Timetable.

## Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

## Class and Assessment Overview

## Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

## Class Timetable

#### **Regional Campuses**

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

#### **Metropolitan Campuses**

Adelaide, Brisbane, Melbourne, Perth, Sydney

## **Assessment Overview**

1. **Online Test** Weighting: 20%

2. On-campus ActivityWeighting: Pass/Fail3. Written Assessment

Weighting: 40% 4. **Examination** Weighting: 40%

# Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the <u>University's Grades and Results Policy</u> for more details of interim results and final grades.

# **CQUniversity Policies**

## All University policies are available on the CQUniversity Policy site.

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

## Previous Student Feedback

# Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

## Feedback from Student and Unit Teaching Evaluation data

#### **Feedback**

The relevance of the unit, including the utility of the knowledge and skills covered, is not overly clear to students from all disciplines.

#### Recommendation

It is recommended that discipline-specific scope of practices, example scenarios, and research findings from exercise and sport science, physiotherapy, and education settings will be incorporated in lectures, practical classes, and assessment guestions to strengthen the relevance of the unit to students.

## Feedback from Student and Unit Teaching Evaluation feedback

#### **Feedback**

The single set of questions within the practice quiz given each week limits the ability of students to undertake multiple practice attempts leading into the actual online guizzes.

#### Recommendation

It is recommended that additional questions will be included within practice quizzes each week to ensure students can complete multiple practice attempts and receive different questions for each attempt in preparation for the actual online quizzes.

# **Unit Learning Outcomes**

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

- 1. Explain the individual and integrated changes that occur in different physiological body systems in response to acute and chronic exercise
- 2. Describe how physiological responses relating to exercise change across the lifespan and in different environments
- 3. Collect and interpret physiological measurements obtained during laboratory and field exercise tests.

# Alignment of Learning Outcomes, Assessment and Graduate Attributes

N/A Level Introductory Intermediate Graduate Profess Level Profess	ional Advanced Level					
Alignment of Assessment Tasks to Learning Outcomes						
Assessment Tasks	Assessment Tasks Learning Outcomes					
	1	2	3			
1 - Online Test - 20%	•	•				
2 - Written Assessment - 40%			•			
3 - Examination - 40%	•	•				
4 - On-campus Activity - 0%			•			

Graduate Attributes				Learning Outcomes						
				:	1		2		3	3
1 - Communication					•		•		•	
2 - Problem Solving					•		•			
3 - Critical Thinking					•		•		•	
4 - Information Literacy					•		•		•	
5 - Team Work									(	
6 - Information Technology Competence					•		•		•	,
7 - Cross Cultural Competence									•	•
8 - Ethical practice									•	
9 - Social Innovation										
10 - Aboriginal and Torres Strait Islander Cultures										
lignment of Assessment Tasks to Grad				ribut	05					
ASSESSIFIER TOSKS		Graduate Attributes  1 2 3 4 5 6 7 8 9 10								
	1	2	3	4	Э	0	, 	8	9	10
1 - Online Test - 20%	•	•	•	•		•			ı	
2 - Written Assessment - 40%	•	•	•	•	•	•		•		
3 - Examination - 40%	•	•	•	•		•				
4 - On-campus Activity - 0%	•				•					

## Textbooks and Resources

## **Textbooks**

ESSC12001

#### **Prescribed**

## **Exercise Physiology**

Edition: 9th (2022)

Authors: McArdle, W., Katch, F., and Katch, V.

Lippincott Williams & Wilkins Philadelphia , PA , USA ISBN: 9781975159993 Binding: Hardcover

## View textbooks at the CQUniversity Bookshop

## **IT Resources**

#### You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Computer
- MS Office
- Calculator

# Referencing Style

All submissions for this unit must use the referencing style: <u>American Psychological Association 7th Edition</u> (APA 7th edition)

For further information, see the Assessment Tasks.

# **Teaching Contacts**

Aaron Scanlan Unit Coordinator

a.scanlan@cgu.edu.au

## Schedule

#### Week 1 - Module 1 - 06 Mar 2023

Module/Topic

Module 1: Introduction and

exercise screening

Topic 1. Unit introduction and

requirements

Topic 2. What is exercise and

sport physiology?

Topic 3. Risks of exercise

Topic 4. Pre-exercise health

screening

Week 2 - Module 2 - 13 Mar 2023

Module/Topic Chapter

**Events and Submissions/Topic** 

Adult Pre-Exercise Screening System and Guidelines provided

on unit Moodle site.

Chapter

**Events and Submissions/Topic** 

Module 2: Exercise metabolism Topic 1. Energy transfer during exercise Topic 2. Anaerobic energy McArdle, Katch, & Katch. (2022). Exercise Physiology: Nutrition, systems Topic 3. Aerobic energy system Energy and Human Performance Online guiz 1 opens at 9:00 am Topic 4. Macronutrient energy (9th ed.). New York, NY: AEST on Thursday 16 March release Lippincott Williams & Wilkins. Topic 5. Factors affecting Chapters 5, 6, and 8. macronutrient release Topic 6. Measurement of energy Week 3 - Module 3 - 20 Mar 2023 Module/Topic Chapter **Events and Submissions/Topic** Module 3: Pulmonary and cardiovascular responses to exercise Topic 1. Pulmonary system McArdle, Katch, & Katch. (2022). physiology Exercise Physiology: Nutrition, Topic 2. Pulmonary system Energy and Human Performance Online guiz 2 opens at 9:00 am responses to exercise (9th ed.). New York, NY: AEST on Thursday 23 March Lippincott Williams & Wilkins. Topic 3. Acid-base regulation Topic 4. Cardiovascular system Chapters 12-17. physiology Topic 5. Cardiovascular system responses to exercise Week 4 - Module 4 - 27 Mar 2023 Module/Topic Chapter **Events and Submissions/Topic** Module 4: Endocrine and neuromuscular responses to exercise McArdle, Katch, & Katch. (2022). Topic 1. Endocrine system Exercise Physiology: Nutrition, physiology Energy and Human Performance Online quiz 3 opens at 9:00 am Topic 2. Endocrine system (9th ed.). New York, NY: AEST on Thursday 30 March responses to exercise Lippincott Williams & Wilkins. Topic 3. Neuromuscular system Chapters 18-20 and 22. physiology Topic 4. Neuromuscular system responses to exercise Week 5 - Module 5 - 03 Apr 2023 Module/Topic Chapter **Events and Submissions/Topic** Module 5: Training thresholds, principles, and adaptations McArdle, Katch, & Katch. (2022). Topic 1. Oxygen uptake kinetics Exercise Physiology: Nutrition, Topic 2. Performance thresholds Energy and Human Performance Online guiz 4 opens at 9:00 am Topic 3. Exercise training (9th ed.). New York, NY: AEST on Thursday 6 April principles Lippincott Williams & Wilkins. Topic 4. Adaptations to exercise Chapters 7, 14, 21, and 22. Vacation Week - 10 Apr 2023 Module/Topic Chapter **Events and Submissions/Topic** Week 6 - Module 6 - 17 Apr 2023 Module/Topic Chapter **Events and Submissions/Topic** 

Module 6: Environmental and lifespan exercise responses Topic 1. Exercise responses to altitude

body

Topic 3. Exercise responses to heat and cold

Topic 4. Exercise considerations in children

Topic 5. Exercise considerations according to sex

Topic 6. Exercise considerations with age

Topic 2. Thermoregulation in the McArdle, Katch, & Katch. (2015). AEST on Thursday 20 April Exercise Physiology: Nutrition, Energy and Human Performance (8th ed.). New York, NY: Lippincott Williams & Wilkins. Chapters 21, 24, 25, and 31.

Online quiz 5 opens at 9:00 am

Practical block 1 for Physiotherapy students at the Rockhampton North campus from Friday 21 April 9:00 am to Saturday 22 April 1:30 pm AEST

#### Week 7 - Practical blocks - 24 Apr 2023

Module/Topic **Events and Submissions/Topic** Chapter Practical block 2 for Mackay students at the Mackay City Campus from Thursday 27 April No lecture 9:00 am to Friday 28 April 1:30 pm AEST

#### Week 8 - Practical blocks - 01 May 2023

**Events and Submissions/Topic** Module/Topic Chapter Practical block 3 for Cairns students at the exercise and sport sciences laboratories at the No lecture Cairns basketball stadium from Thursday 4 May 9:00 am to Friday 5 May 1:30 pm AEST

Week 9 - Practical blocks - 08 May 2023 Module/Topic Chapter **Events and Submissions/Topic** Practical block 4 for mixed-mode and Rockhampton Exercise and Sport Sciences, Education, and other students at the Rockhampton North campus from Tuesday 9 May 9:00 am to No lecture Wednesday 10 May 1:30 pm **AEST** Attendance and participation at

practical block Due: Week 9 Wednesday (10 May 2023) 5:00 pm **AEST** 

### Week 10 - Review - 15 May 2023

Module/Topic Chapter **Events and Submissions/Topic** 

Review lecture

Topic 1. Summary of major

topics

Topic 2. Review of practice exam

questions

Topic 3. Issues and tips for

practical workbook

Topic 4. Exam preparation and

tips

Online auizzes Due: Week 10 Friday (19 May 2023) 5:00 pm AEST

Week 11 - Self-directed st	:udy - 22 May 2023	
Module/Topic	Chapter	<b>Events and Submissions/Topic</b>
No lecture		
Week 12 - Self-directed st	:udy - 29 May 2023	
Module/Topic	Chapter	<b>Events and Submissions/Topic</b>
No lecture		<b>Practical Workbook</b> Due: Week 12 Friday (2 June 2023) 5:00 pm AEST
Review/Exam Week - 05 Ju	ın 2023	
Module/Topic	Chapter	Events and Submissions/Topic
Exam Week - 12 Jun 2023		
Module/Topic	Chapter	<b>Events and Submissions/Topic</b>

# **Term Specific Information**

This unit includes compulsory on-campus practical activities. You must attend the practical block specific to your enrolment and course as outlined below. If you prefer to attend an alternate session to that specified for your enrolment and course, please contact the Unit Coordinator to discuss attendance at an alternative practical block.

Students enrolled in Physiotherapy via Mixed Mode (MIX) and Rockhampton (ROK) are required to attend the practical block scheduled on the Rockhampton North Campus (Building 81, Exercise and Sport Sciences Laboratories) on Friday 21 April and Saturday 22 April. Please see the CQUniversity Handbook and the ESSC12001 Moodle site for up-to-date information.

Students enrolled on-campus in Mackay (MKY) in any course are required to attend the practical block scheduled on the Mackay City Campus (Building 4, Exercise and Sport Sciences Laboratories) on Thursday 27 April and Friday 28 April. Please see the CQUniversity Handbook and the unit Moodle site for up-to-date information.

Students enrolled on-campus in Cairns (CNS) in any course are required to attend the practical block scheduled on the Cairns campus (Exercise and Sport Sciences Laboratories located at the Cairns Basketball Association Headquarters) on Thursday 4 May and Friday 5 May. Please see the CQUniversity Handbook and the unit Moodle site for up-to-date information.

Students enrolled in Exercise and Sport Sciences, Education, and other courses via Mixed Mode (MIX) or on-campus in Rockhampton are required to attend the practical block scheduled on the Rockhampton North Campus (Building 81, Exercise and Sport Sciences Laboratories) on Tuesday 9 May and Wednesday 10 May. Please see the CQUniversity Handbook and the unit Moodle site for up-to-date information.

### **Assessment Tasks**

# 1 Online quizzes

#### **Assessment Type**

Online Test

## **Task Description**

You will be required to complete five online quizzes, with a separate quiz developed for specific modules. Online quiz 1 will assess knowledge of the content covered in module 2; online quiz 2 will

assess knowledge of the content covered in module 3; online quiz 3 will assess knowledge of the content covered in module 4; online quiz 4 will assess knowledge of the content covered in module 5; and online quiz 5 will assess knowledge of the content covered in module 6. Each online quiz will consist of 16 randomly-selected questions from a wider bank of 30 questions. Questions will be relevantly distributed across all topics in each module.

Each online quiz will open at 9:00 am AEST on Thursday following the scheduled lecture for the corresponding module and all online quizzes will close at the same time in week 10 (Friday 19 May 5:00 pm AEST). You will have a 25-minute time limit to complete each online quiz upon commencing. Questions will be in multiple-choice and fill-in-the-blank formats.

You must log onto Moodle after each online quiz is opened and complete all online quizzes before the closing time. You can only attempt each online quiz once and each must be completed in a single session. Online quizzes should be completed on a computer, as attempting them on a smartphone can result in your session being ended in the event of a phone call or notification. You cannot save your answers and return to online quizzes at a later time. In the absence of an approved extension, there will be no late submissions allowed for any of the online quizzes.

#### **Assessment Due Date**

Week 10 Friday (19 May 2023) 5:00 pm AEST

In the absence of an approved extension, no attempts after the due date will be permitted and a score of zero will be awarded.

#### **Return Date to Students**

Week 10 Friday (19 May 2023)

You will receive the overall result for each online quiz upon completion; however, you will see detailed feedback regarding the correct answers for each question in each online quiz upon their closure.

#### Weighting

20%

#### **Assessment Criteria**

Each online quiz will have an equal contribution to your overall unit grade. Together, the five online quizzes will comprise 20% of your overall grade.

There will be 16 questions per online test, with each question allocated 1 mark. Each question in each online quiz will be graded as correct or incorrect.

For questions with fill-in-the-blank responses, you should take care to ensure accurate spelling (Australian English) and correct grammar are used given answers are spelling- and grammar-sensitive.

#### **Referencing Style**

• American Psychological Association 7th Edition (APA 7th edition)

#### **Submission**

Online

#### **Submission Instructions**

Attempting and submitting each online quiz is performed via the unit Moodle site. You are required to complete each online quiz within the specified times that they are open. Online quizzes should be completed on a computer, as attempting them on a smartphone can result in your session being ended in the event of a phone call or notification.

#### **Learning Outcomes Assessed**

- Explain the individual and integrated changes that occur in different physiological body systems in response to acute and chronic exercise
- Describe how physiological responses relating to exercise change across the lifespan and in different environments

## **Graduate Attributes**

- Communication
- Problem Solving

- Critical Thinking
- Information Literacy
- Information Technology Competence

# 2 Attendance and participation at practical block

## **Assessment Type**

**On-campus Activity** 

#### **Task Description**

This assessment involves compulsory attendance and participation in the on-campus practical activities involved in the unit. You are required to attend and participate in one of the scheduled practical blocks. Different blocks are available depending on your mode of enrolment and course of study. Further details regarding these blocks can be found in the Term Specific Information section of this Unit Profile, on the unit Moodle site, or via the CQUniversity Handbook.

#### **Assessment Due Date**

Week 9 Wednesday (10 May 2023) 5:00 pm AEST

You will successfully complete this assessment item following attendance and participation at your designated practical block.

#### **Return Date to Students**

Week 9 Wednesday (10 May 2023)

You will immediately pass this assessment following attendance and participation at your designated practical block.

#### Weighting

Pass/Fail

## Minimum mark or grade

You must pass this assessment item to pass the unit overall.

#### **Assessment Criteria**

Attendance at an on-campus practical block with sufficient participation will result in a passing grade for this assessment. Failure to attend and adequately participate in a practical block may result in failing this assessment item, and being unable to pass this unit. Attendance at all practical activities will be assessed through attendance records documented by staff managing the sessions.

If you miss any part of the practical block without an approved reason, there will not be an opportunity to simply catch up at any time. The Assessment Policy and Procedure (Higher Education Coursework) outlines acceptable reasons for adjusting assessment. If you do not attend part of the practical block and provide a valid reason with supporting documentation, then an attempt to make alternate arrangements will be made in consultation with the Unit Coordinator.

## **Referencing Style**

• American Psychological Association 7th Edition (APA 7th edition)

#### **Submission**

Offline

## **Submission Instructions**

Attendance and participation will involve physical completion of practical activities. No documentation is required to be submitted.

#### **Learning Outcomes Assessed**

• Collect and interpret physiological measurements obtained during laboratory and field exercise tests.

### **Graduate Attributes**

- Communication
- Team Work
- Cross Cultural Competence
- Ethical practice

## 3 Practical Workbook

#### **Assessment Type**

Written Assessment

#### **Task Description**

When completing the practical activities during a practical block in this unit, you will be required to complete a series of tasks involving physiological measurement.

You will need to document the completion of practical activities by filling out a practical workbook available on the unit Moodle site.

The practical workbook will require you to physically complete the practical activities, record collected data for various tasks, perform calculations with collected data, interpret and critically analyse your findings, and answer relevant questions.

#### **Assessment Due Date**

Week 12 Friday (2 June 2023) 5:00 pm AEST

In the absence of an approved extension, any submissions received after the due date will incur penalties in accordance with CQUniversity Assessment Policy and Procedure (Higher Education Coursework).

#### **Return Date to Students**

Exam Week Friday (16 June 2023)

Grades and feedback for the Practical Workbook will be made available on the unit Moodle site no later than the set return date.

#### Weighting

40%

#### **Assessment Criteria**

The Practical Workbook is designed to evaluate your ability to use relevant equipment, collect physiological and performance data, and apply knowledge to interpret findings. Marks will be allocated to the different activities completed for the following: accurate recording of collected data, presentation of graphical information, analyses using collected data, use of correct terminology, correct responses to questions, correct written interpretation of results, and referencing. The Practical Workbook will be graded out of 400 marks equally divided into the following practical sessions:

- 1. Health screening and anthropometry (80 marks)
- 2. Exercise intensity, efficiency, and substrate utilisation (80 marks)
- 3. Spirometry and electrocardiography (80 marks)
- 4. High-performance testing for anaerobic and aerobic fitness (80 marks)
- 5. Thermoregulatory responses to exercise (80 marks)

#### **Referencing Style**

• American Psychological Association 7th Edition (APA 7th edition)

#### **Submission**

Online

#### **Submission Instructions**

You are required to submit a completed copy of the Practical Workbook as a .doc or .docx file on the unit Moodle site. You may also submit supplementary documents showing your calculations for relevant practical tasks as .xls, .xlsx, or image files. All submissions are to be completed individually.

#### **Learning Outcomes Assessed**

Collect and interpret physiological measurements obtained during laboratory and field exercise tests.

## **Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Ethical practice

## **Examination**

#### **Outline**

Complete an invigilated examination.

#### Date

During the examination period at a CQUniversity examination centre.

## Weighting

40%

#### Length

180 minutes

#### **Exam Conditions**

Closed Book.

#### **Materials**

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

Calculator - non-programmable, no text retrieval, silent only

# **Academic Integrity Statement**

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

#### What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

## Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

## Where can I get assistance?

For academic advice and guidance, the <u>Academic Learning Centre (ALC)</u> can support you in becoming confident in completing assessments with integrity and of high standard.

#### What can you do to act with integrity?



#### **Be Honest**

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



## Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



## **Produce Original Work**

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem