ESSC13006 *Applied Skill Acquisition and Movement*

Term 1 - 2017

Profile information current as at 09/05/2024 01:14 pm

All details in this unit profile for ESSC13006 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 is designed as a follow-up from ESSC11003- Skill Acquisition and Movement. The unit will focus on the neuromotor system and examine the central mechanisms that are involved in postural control, gait locomotion and various human movements that are essential in activities of daily living. This unit starts by examining the concept of neuroplasticity and the neurophysiological changes associated with motor learning and memory consolidation. It will also address how the brain controls essential human movement such as walking and static posture and how it adapts itself functionally to injury or environmental stimulus. With this knowledge, the unit will further explore how concepts of motor control and learning may be applied to rehabilitation of neurological conditions such as stroke, Parkinson's disease, spinal cord injury and multiple sclerosis. The practical component of this unit will allow students to be involved in self-directed research projects pertaining to motor control and learning. Distance education (FLEX) students will be required to have access to a computer to make frequent use of internet resources and to attend a residential school on Rockhampton campus to promote development of unit learning outcomes.

Details

Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *10*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Pre-requisite - 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 Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2017

- Distance
- 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: 40%
2. **Presentation**
Weighting: 30%
3. **Written Assessment**
Weighting: 30%
4. **On-campus Activity**
Weighting: Pass/Fail

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 University's Grades and Results Policy 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 Anonymous feedback via 'Have your say' button on Moodle

Feedback
The lectures were clear and concise and explained topics really well, I was able to retain information well.

Recommendation
Continue with current lecture delivery format.

Action
A similar format of lecture delivery was used this year, based on success and positive feedback from previous cohorts.

Feedback from Anonymous feedback via 'Have your say' button on Moodle

Feedback
Rob was a great lecturer, very motivated and enthusiastic. He was quick to reply to emails and very helpful. I appreciated the emails he sent us to keep in contact and keep us up to date with assessment items.

Recommendation
Continue regular contact with students using EasiConnect

Action
I have continued to use EasiConnect to engage with the large proportion of MIX students, and to monitor Moodle engagement with the unit.

Feedback from Self-reflection on course delivery.

Feedback
Need for timely return of assessment items.

Recommendation
Manage workload at assessment submission times to ensure timely return of marks and feedback.

Action
Improved workload allocation around assessment times has resulted in improve turnaround times for assessment items and is reflected in the improved student satisfaction score for this aspect of the unit.

Unit Learning Outcomes

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

1. Analyse the central mechanisms involved with postural control and locomotion.
2. Examine the concept of neuroplasticity and apply this knowledge in motor learning.
3. Examine the principles, interventions and assessments used in neuro-rehabilitation.
4. Describe and differentiate motor disorders that influence motor control.

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ◦ Professional Level | ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Online Test - 40%	•	•	•	•
2 - Presentation - 30%	•	•	•	•
3 - Written Assessment - 30%	•	•	•	•
4 - On-campus Activity - 0%			•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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				

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Online Test - 40%		•	•			•				
2 - Presentation - 30%	•		•	•	•	•	•	•		
3 - Written Assessment - 30%	•	•	•	•	•		•	•		
4 - On-campus Activity - 0%	•	•	•	•	•	•		•		

Textbooks and Resources

Textbooks

There are no required textbooks.

Additional Textbook Information
There are no specified texbooks for this course. You should refer to your earlier undergraduate skill acquisition, biomechanics and physiology textbooks to assist your learning as required.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Computer with Microsoft Office and EndNote installed. The 'Real Statistics' add-In for Microsoft Excel is highly recommended to undertake the statistical analysis required for this course. You will also need ZOOM Videoconference software. This is free and available from www.zoom.us

Referencing Style

All submissions for this unit must use the referencing style: American Psychological Association 6th Edition (APA 6th edition)
For further information, see the Assessment Tasks.

Teaching Contacts

Robert Stanton Unit Coordinator
r.stanton@cqu.edu.au

Schedule

Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to motor control - Fundamentals of sensorimotor behaviour and neuromechanics		

Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Neuroanatomy (I) - Structure and function of the cerebral cortex		

Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Neuroanatomy (II) - Functions of the subcortical and spinal structures		

Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Concepts of neuroplasticity - Implications for motor learning and rehabilitation		Online quiz 1: This quiz will assess content from Weeks 1-3 inclusive. The quiz will be open from 8:00 AM AEST Wednesday (29 Mar 17) until 11:55 PM AEST Sunday (02 Apr 17).

Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Reflex circuitry and voluntary motor control		

Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Static postural control - Orienting to the environment and controlling upright stance		

Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Dynamic motor control (I) - Locomotion of the legs		Online quiz 2: This quiz will assess content from Weeks 4-6 inclusive. The quiz will be open from 8:00 AM AEST Wednesday (26 Apr 17) until 11:55 PM AEST Sunday (30 Apr 17). **Oral presentation - Review of the Literature** Due: Week 7 Monday (24 Apr 2017) 8:00 am AEST

Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Dynamic motor control (II) - Visual control of locomotor manoeuvres and staying on track		Residential School: Attendance and active participation at this residential school is compulsory for ALL students. Make sure you indicate your attendance using the big red button in Moodle. The residential school is scheduled for Saturday 6th May 2017 and Sunday 7th May 2017.

Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Programs and pattern generation in voluntary action		

Week 10 - 15 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Understanding movement disorders - Parkinson's disease, dystonia and multiple sclerosis		Online quiz 3: This quiz will assess content from Weeks 7-9 inclusive. The quiz will be open from 8:00 AM AEST Wednesday (17 May 17) until 11:55 PM AEST Sunday (21 May 17).

Week 11 - 22 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Understanding CNS injuries - Stroke and spinal cord injury		

Week 12 - 29 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Ticking all the boxes - A final look at the guidelines and marking criteria for the written research laboratory manuscript		Online quiz 4: This quiz will assess content from Weeks 10-11 inclusive. The quiz will be open from 8:00 AM AEST Wednesday (31 May 17) until 11:55 PM AEST Sunday (04 Jun 17).

Review/Exam Week - 05 Jun 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
No lectures or laboratory sessions		**Written Laboratory Research Manuscript** Due: Review/Exam Week Wednesday (7 June 2017) 5:00 pm AEST
Exam Week - 12 Jun 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Assessment Tasks

1 Online Tests

Assessment Type
Online Test

Task Description
The online test will consist of 4 (four) separate quizzes administered at various points across the Term. Each quiz consists of 20 questions and will cover the various lecture topics. Quizzes may include multiple choice questions, short-answer questions, or both. Each quiz will be worth 10% and therefore these assessment tasks comprise 40% of the total grade for this course.

Assessment Due Date

Four online quizzes will be administered at various points across the Term. Details on the due dates for each quiz can be found on the course schedule.

Return Date to Students

Results of each quiz will be made available the week following its respective due date.

Weighting
40%

Assessment Criteria
No Assessment Criteria

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
Online

Learning Outcomes Assessed

- Analyse the central mechanisms involved with postural control and locomotion.
- Examine the concept of neuroplasticity and apply this knowledge in motor learning.
- Examine the principles, interventions and assessments used in neuro-rehabilitation.
- Describe and differentiate motor disorders that influence motor control.

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Technology Competence

2 Oral presentation - Review of the Literature

Assessment Type
Presentation

Task Description
Reviews of the literature are important contributions to science. They provide a concise summary of what is currently known about a topic and often identify gaps in the literature which guide future research. Reviews of the literature, particularly systematic reviews or meta-analyses are often well cited and there are journals dedicated to this type of

manuscript. Reviews are also presented at conferences and often provide an up to date summary on a given topic.
You will undertake a review of the literature on one (1) of the topics provided by the unit coordinator. You will then prepare a slide presentation on your review of the literature using PowerPoint or similar software, and deliver this presentation to the unit coordinator and your peers during one of the available online seminars, to be held during Week 7, Term 1, 2017. Online seminars will be conducted using ZOOM videoconferencing software and the seminars will be recorded.
Like presenting at a conference, there are some strict guidelines on how you should prepare your presentation. An overview of these is provided below, and you will receive more detailed information in lectures and on Moodle. Therefore you are strongly encouraged to attend and/or review the lectures online, and regularly check Moodle for tips on preparing a great presentation.

General format of the presentation

Duration: Not more than ten (10) minutes (approximately 8-15 slides), with an additional five (5) minutes for questions immediately following the presentation. Total time: 15 minutes.
Figures and tables: The use of figures, tables or diagrams to report your findings is encouraged but not mandatory.
Pictures or images: The use of pictures or images for the purpose of filling space on a slide or making the presentation 'pretty' is discouraged.
Font: Choose a non-serif font such as Calibri, Verdana, or Arial.
Language: English (Australian).
Transition between slides: None.
References: These are to be cited following the statement to which they pertain. The citation should be in the same font as the rest of the text, but size 12 point. The format should be (Author, year). If more than 1 author, list the first author then use et al. For example (Stanton et al, 2013). Do not use the complete citation. This will appear in the reference list which will form part of the Moodle submission.

Moodle submission

By the due date prescribed below, you will submit via Moodle, two (2) files;
a) a PDF of the final slides you intend to present at the seminar; and
b) a Word document which contains the following information;

- Your name and student number.
- The title of your Review of the Literature.
- A brief summary (not more than 250 words) of your Review of the Literature.
- A reference list which contains a minimum of ten (10) references from the current (within 10 years) peer-reviewed literature which must be cited in your presentation. You may use EndNote or similar bibliographic software to format your references if you choose, or you may format them manually. If you choose to use EndNote, it can be obtained from CQUniversity's ITD website. I would strongly encourage the use of EndNote since it is mandatory for your written laboratory research report. You are encouraged to trial this software early as I will be providing tips on its use and links to instructions each week. Referencing will be in APA 6th - full name format and this style is included in EndNote.

Assessment Due Date

Week 7 Monday (24 Apr 2017) 8:00 am AEST
Moodle submissions are due on the prescribed day and time. Online seminars will be held during Week 7. Up to four (4) alternate times/days will be available during Week 7. You are only required to attend one (1) seminar.

Return Date to Students

Week 8 Wednesday (3 May 2017)

Weighting

30%

Assessment Criteria

This assessment item will be graded using an assessment rubric. This outlines in detail, the grade achieved for each assessable section of the presentation, and the Moodle submission. The complete rubric is available on Moodle and a detailed explanation will be given in lectures and on Moodle.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission

Online

Learning Outcomes Assessed

- Analyse the central mechanisms involved with postural control and locomotion.
- Examine the concept of neuroplasticity and apply this knowledge in motor learning.
- Examine the principles, interventions and assessments used in neuro-rehabilitation.

- Describe and differentiate motor disorders that influence motor control.

Graduate Attributes

- Communication
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

3 Written Laboratory Research Manuscript

Assessment Type
Written Assessment

Task Description
At the residential school for this unit, you will undertake a number of laboratory experiments designed to examine the impact of a variety of stimuli on motor performance. You will also have read many peer-reviewed manuscripts during your program of study. Now is your opportunity to write a similar paper, not for publication, but for assessment. Your task is to write a brief written laboratory report on one (1) of the laboratory experiments undertaken during the ESSC13006 compulsory residential school.
Your report should provide a brief background of the topic, describe the methods used in the experiment such that it could be replicated, report your findings from the experiment, and discuss you findings in the context of the current body of knowledge on the topic. Finally, you will provide conclusions based on your findings and offer some practical implications of the study. This is what many of your lecturers and tutors do when they prepare manuscripts for publication – now it's your turn!
Like submitting a manuscript for publication, there are some strict guidelines. An overview of these is provided below, and you will receive more detailed information in lectures and on Moodle. Therefore you are strongly encouraged to attend and/or review the lectures online, and regularly check Moodle for tips on preparing a great manuscript.
General format
Word processing program: Microsoft Word (or equivalent word processing software).
Font: Calibri 12 point 'Normal' for ALL sections of the manuscript.
Spacing: Double spaced throughout.
Headings: Use the headings listed in the detailed explanation on Moodle.
Alignment: Left aligned.
Language: English (Australian).
Referencing: Where relevant, statements in your manuscript MUST be appropriately referenced using peer-reviewed journals. You MUST use EndNote or similar bibliographic software to format your references. EndNote is available to both on-campus and flex students and is available for Windows and Mac users. You are encouraged to trial this software early as I will be providing tips on its use and links to instructions each week.
Referencing will be in APA 6th - full name format and this style is included in EndNote.
Word count: NOT LESS THAN 1500 AND NOT MORE THAN 2000 words excluding the title page, abstract and references. A structured abstract of no more than 150 words is required, however, this is not included in the word count for the main text. You must not exceed the maximum word count as any excess material will NOT be read and will not be marked. Therefore it will not contribute to your overall grade. A suggested word count for each section is provided in greater detail on Moodle, and is a GUIDE only. It is the total word count that will be assessed.
Remember to check Moodle for detailed instructions in the 'Written Laboratory Research Manuscript' section, along with a marking rubric, so you can see how the manuscript will be assessed.

Assessment Due Date
Review/Exam Week Wednesday (7 June 2017) 5:00 pm AEST

Return Date to Students
Exam Week Friday (16 June 2017)

Weighting
30%

Assessment Criteria
This assessment item will be graded using an assessment rubric. This outlines in detail, the grade achieved for each assessable section of the written laboratory research manuscript . The complete rubric is available on Moodle and a detailed explanation will be given in lectures and on Moodle.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
Online

Learning Outcomes Assessed

- Analyse the central mechanisms involved with postural control and locomotion.
- Examine the concept of neuroplasticity and apply this knowledge in motor learning.
- Examine the principles, interventions and assessments used in neuro-rehabilitation.
- Describe and differentiate motor disorders that influence motor control.

Graduate Attributes

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

4 On-campus Activity

Assessment Type
On-campus Activity

Task Description
ESSC13006 Applied Skill Acquisition and Movement includes a compulsory two (2) day residential school component. Attendance and active participation forms part of your assessment and you cannot pass the unit without attending the residential school. In addition, the data you collect from the experiments undertaken during the residential school will inform your Written Laboratory Research Manuscript. The compulsory residential school is scheduled for Saturday 6th May and Sunday 7th May, and is held on the Rockhampton North campus only. More details including the commencement times and experiments to be undertaken will be available on Moodle.

Assessment Due Date

Compulsory residential school scheduled for Saturday 6th May and Sunday 7th May, 2017.

Return Date to Students

This is a Pass/Fail assessment item based on attendance and active participation at the residential school. You must attend and actively participate in the residential school in order to pass this unit.

Weighting
Pass/Fail

Assessment Criteria
Attendance and active participation at the compulsory residential school forms part of your assessment for this unit and you cannot pass the unit without attending the residential school. You will need to present your student identification card as verification when signing in to the residential school.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
Offline

Submission Instructions
Attendance at the compulsory residential school.

Learning Outcomes Assessed

- Examine the principles, interventions and assessments used in neuro-rehabilitation.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work

- Information Technology Competence
- Ethical practice

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 Academic Learning Centre (ALC) 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