



# CHIR20016 Applied Nutrition and Pharmacology

## Term 1 - 2017

Profile information current as at 23/04/2024 08:42 pm

All details in this unit profile for CHIR20016 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 aims to provide you with the skills required to apply the principles of human nutrition and pharmacology to the musculoskeletal health of your future patients. It commences with a review of the general principles in these disciplines, ensuring that your knowledge is both comprehensive and commensurate with current evidence. Following this, you will focus on the elements of pharmacology and nutrition most relevant to your role as a health professional. In the area of pharmacology, this includes a more detailed look at the use of steroids and other medications used in the treatment of musculoskeletal disease, the use of non-steroidal anti-inflammatory drugs and an exploration of the adverse reactions of drugs on musculoskeletal function. In the area of nutrition, the relationship between nutrients - in food and by supplementation - and the health of the musculoskeletal system will be studied. You will utilise research databases in an attempt to distinguish between fact and fallacy in the area of dietary intervention.

### Details

Career Level: *Postgraduate*

Unit Level: *Not Applicable*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Co-requisite: CHIR20009 Clinical Practice 4

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

- Mackay

### 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).

### 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 Postgraduate 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. **In-class Test(s)**

Weighting: 25%

#### 2. **Written Assessment**

Weighting: 25%

#### 3. **Examination**

Weighting: 50%

### 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 Self-reflection

##### Feedback

I believe that the on-line test should be replaced with a more challenging assessment task.

##### Recommendation

Consider other forms of assessment to replace the online test. Maintain the online test for formative assessment.

##### Action

An in class, invigilated test replaced the on-line test. This resulted in a greater range of marks, which thus distinguished between good, average and poor students.

## Unit Learning Outcomes

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

1. Explain a broad range of concepts in nutritional science and pharmacology to patients and to other health care practitioners.
2. Evaluate current research on a topic in the area of nutrition and/or pharmacology.
3. Compare the pharmacological management options for a range of common musculoskeletal disorders.
4. Analyse the relationship between nutrients and the health of the musculoskeletal system.
5. Contrast the effects of commonly prescribed drugs on the musculoskeletal system, including both therapeutic effects and adverse reactions.
6. Propose a process for assessing patients to identify any adverse reaction to medications, both prescribed and over the counter.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - In-class Test(s) - 25%		•	•	•	•	
2 - Written Assessment - 25%	•	•		•		
3 - Examination - 50%			•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
1 - Knowledge	<input type="checkbox"/>					
2 - Communication	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 - Cognitive, technical and creative skills	<input type="checkbox"/>					
4 - Research		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5 - Self-management						
6 - Ethical and Professional Responsibility	<input type="checkbox"/>					
7 - Leadership						
8 - 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
1 - In-class Test(s) - 25%	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				
2 - Written Assessment - 25%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
3 - Examination - 50%	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>		

## Textbooks and Resources

### Textbooks

CHIR20016

#### Prescribed

##### **Herbs & natural supplements: an evidence-based guide.**

Edition: 4 (2014)

Authors: Braun L, Cohen M.

Churchill Livingstone

Sydney , NSW , Australia

ISBN: 9780729541718

Binding: Paperback

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#### Supplementary

##### **A guide to integrative and complementary medicine**

Edition: 1 (2011)

Authors: Kotsirilos V, Vitetta L, Sali A.

Churchill Livingstone

Sydney , NSW , Australia

ISBN: 978-0729539081

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)

## Referencing Style

**All submissions for this unit must use the referencing styles below:**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Robyn Beirman** Unit Coordinator

[r.beirman@cqu.edu.au](mailto:r.beirman@cqu.edu.au)

## Schedule

### Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
<b>NUTRITION 1</b>		
Introduction		

### Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## PHARMACOLOGY 1

Review of basic pharmacology

### Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## NUTRITION 2

1. Inflammation
2. Bone Health

### Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## PHARMACOLOGY 2

1. An overview of the pharmacological management of pain
2. NSAIDS

### Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## NUTRITION 3

1. Joint Health
2. Muscle Health

### Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
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### Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## PHARMACOLOGY 3

Steroids

### Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## NUTRITION 4

1. Cardiovascular disease
2. Cancer

### Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## PHARMACOLOGY 4

1. Musculoskeletal and neurological side effects of drugs
2. Drugs in Sport

In class test May 1st

**In class test** Due: Week 8 Monday (1 May 2017) 1:00 pm AEST

### Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
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## NUTRITION

1. Liver Disease/  
Gastrointestinal Dysbiosis
2. Immune Function/Chronic Inflammation

**Week 10 - 15 May 2017**

Module/Topic	Chapter	Events and Submissions/Topic
<b>PHARMACOLOGY 5</b> Principles of pharmacological management of Musculoskeletal disorders		<b>Dietary intake recording and macro/micro nutrient analysis</b> Due: Week 10 Friday (19 May 2017) 6:00 pm AEST

**Week 11 - 22 May 2017**

Module/Topic	Chapter	Events and Submissions/Topic
<b>NUTRITION 6</b> 1. Food Allergies/Food Intolerances 2. Paediatric/ Geriatric/ Sports Nutrition		

**Week 12 - 29 May 2017**

Module/Topic	Chapter	Events and Submissions/Topic
<b>PHARMACOLOGY 6</b> Principles of Toxicology		

**Review/Exam Week - 05 Jun 2017**

Module/Topic	Chapter	Events and Submissions/Topic

**Exam Week - 12 Jun 2017**

Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

The tutorial for this unit will be conducted via Zoom. This means you can join the class from anywhere as long as you have your computer/tablet/smart phone etc.

You will find details on how to connect to Zoom on the Moodle web page.

The meeting number for your pharmacology tutorials is [3926507062](#). The meeting number for your nutrition tutorials will be emailed to you before the beginning of term.

## Assessment Tasks

### 1 In class test

**Assessment Type**

In-class Test(s)

**Task Description**

This in class test will assess your understanding of the Pharmacology content covered in weeks 2, 4 and 6. It will be of 1 hour duration.

**Assessment Due Date**

Week 8 Monday (1 May 2017) 1:00 pm AEST

**Return Date to Students**

Monday (15 May 2017)

**Weighting**

25%

**Minimum mark or grade**

50%

### Assessment Criteria

Some questions asked in the quiz will be objective in style (eg multiple choice), and answers will thus be either correct or incorrect. Other questions will require answers of 1-2 lines.

These questions will test your factual knowledge, comprehension of the topic as well as your ability to apply that knowledge. You will also need to evaluate information given to you, and make decisions based on that data.

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

### Submission

Offline

### Submission Instructions

The test will be conducted in class, and will be collected by the invigilator.

### Learning Outcomes Assessed

- Evaluate current research on a topic in the area of nutrition and/or pharmacology.
- Compare the pharmacological management options for a range of common musculoskeletal disorders.
- Analyse the relationship between nutrients and the health of the musculoskeletal system.
- Contrast the effects of commonly prescribed drugs on the musculoskeletal system, including both therapeutic effects and adverse reactions.

### Graduate Attributes

- Knowledge
- Communication
- Research

## 2 Dietary intake recording and macro/micro nutrient analysis

### Assessment Type

Written Assessment

### Task Description

Students are required to measure and record all personal food and beverage intake quantities for a period of 5 consecutive days, crossing a weekend. This data is to be recorded and presented in a spreadsheet format, then used to calculate the daily intake of:

1. Macronutrient – protein
2. Micronutrient – calcium

Students will then compare their own personal intake data with the recommended daily intakes (RDI) for both protein and calcium according to national dietary guidelines.

Analysis and comparison of these nutrient intake values shall be made followed with recommendations of relevant dietary changes that may be required to ensure adequate daily consumption levels are met.

With particular reference to dietary food sources of both nutrients students shall give a brief outline of the importance protein and calcium play in the health of the musculoskeletal system and their significance in relation to chiropractic clinical practice.

### Assessment Due Date

Week 10 Friday (19 May 2017) 6:00 pm AEST

### Return Date to Students

Week 12 Friday (2 June 2017)

### Weighting

25%

### Minimum mark or grade

50%

### Assessment Criteria

You will be marked based on the following criteria:

#### 1. Food diary data entry 5 days, crossing a weekend (15 marks)

Spread sheet layout accurately recording food and beverage intakes showing quantities. Itemised and quantified intakes recorded day by day with each separate meal shown plus snacks

#### 2. Macronutrient analysis and calculation (15 marks)

Daily protein intake calculated using national dietary guidelines + food composition data

#### 3. Micronutrient analysis and calculation (15 marks)

Daily calcium intake calculated using national dietary guidelines + food composition data. Values given in mg.

**4. RDI values macronutrient/micronutrient (10 marks)**

Protein RDI recommendations per body weight and activity levels

Calcium RDI recommendations age related. Values given in mg

**5. Food sources for calcium/protein (20 marks)**

Stating common food sources of protein with measurement and amounts

Stating common food sources of calcium with measurement and amounts

Reference made to bioavailability of calcium

Reference made to quality and differences of complete/incomplete proteins and bioavailability

**6. Discussion for nutrients in relation to chiropractic practice (25 marks)**

Discussion of calcium => osteopaenia/osteoporosis

Discussion of protein => muscle

Relevance to spinal health

Sacrospinal discussion of spinal health and spinal support

Strategies for increasing nutrient intakes + competing factors

**Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

**Submission**

Online

**Submission Instructions**

Unit Moodle site

**Learning Outcomes Assessed**

- Explain a broad range of concepts in nutritional science and pharmacology to patients and to other health care practitioners.
- Evaluate current research on a topic in the area of nutrition and/or pharmacology.
- Analyse the relationship between nutrients and the health of the musculoskeletal system.

**Graduate Attributes**

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Ethical and Professional Responsibility

## Examination

**Outline**

Complete an invigilated examination.

**Date**

During the examination period at a CQUniversity examination centre.

**Weighting**

50%

**Length**

120 minutes

**Minimum mark or grade**

50

**Exam Conditions**

Closed Book.

**Materials**

No calculators permitted

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

## 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