

Course Outline

Code: SPX410

Title: Exercise Management in Chronic Disease

School:	Health & Sport Sciences
Teaching Session:	Session 2 – this course will be offered 11 - 22 Feb 2019
Year:	2019
Course Coordinator:	Meegan Walker Email: mwalker@usc.edu.au
Course Moderator:	Suzanne Broadbent

Please go to the USC website for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1 Description

This course is required for final year students in the Bachelor of Clinical Exercise Science and Bachelor of Clinical Exercise Physiology programs to prepare for exercise physiology practice. You will study chronic conditions and illnesses for which exercise is medicine. You will learn skills in clinical assessment, case management, exercise prescription and functional conditioning. You will read and apply research on chronic disease management to your clinical decision making, further developing skills in evidence-based practice.

1.2 Course topics

- Clinical reasoning, history taking, record keeping
- Physical examination of people with chronic diseases and complex health conditions
- Evidence-based clinical practice
- Therapist development
- Therapeutic relationships
- Self-management for clients with chronic diseases
- Physiological response and exercise in chronic diseases
- Risk (including contraindications) and benefits of exercise for individuals with chronic disease
- Physiological adaptation to exercise in individuals with chronic disease
- Pre-testing procedures in accordance with specific guidelines and supervision needs
- Planning, and prescribing exercise for rehabilitation and secondary prevention
- Conduct of sub-maximal and maximal exercise testing in individuals with chronic disease
- Medication, chronic disease and exercise.

Key health issues and diseases will be studied in order to learn and apply the course concepts. Examples of chronic diseases and complex health conditions may include: obesity, metabolic syndrome, Type II diabetes, gestational diabetes, polycystic ovary syndrome, cardiac failure, kidney disease, chronic heart, lung, or vascular disease, cancer.

- NB: Chronic and complex diseases typically involve co-morbidities. Diseases will not be studied as discrete entities, but in the case studies of whole people who may have multiple clinical conditions.

2. What level is this course?

400 level Graduate - Independent application of graduate knowledge and skills. Meets AQF and professional requirements. May require pre-requisites and developing level knowledge/skills. Normally taken in the 4th year of an undergraduate program

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

Specific Learning Outcomes On successful completion of this course you should be able to:	Assessment Tasks You will be assessed on the learning outcome in task/s:	Graduate Qualities or Professional Standards mapping Completing these tasks successfully will contribute to you becoming:
Explain the role, skills, and scope of practice of an exercise physiologist in chronic disease management and rehabilitation, multidisciplinary care, referral, and discharge within the Australian health system.	1 - Case study 3 – Written examination	Empowered, having both the capacity and confidence to pursue the attainment of full potential
Apply knowledge of medical, surgical, and allied health management of chronic diseases within the scope of practice of an exercise physiologist.	1 - Case study 3 - Written examination	Knowledgeable, building disciplinary and interdisciplinary knowledge through a scholarly approach incorporating global and regional perspectives
Apply clinical decision making to undertake physical examination, clinical assessment, exercise management, suitable for chronic disease rehabilitation practice.	1 - Case study 2 - Practical examination 3 – Written examination	Empowered, having both the capacity and confidence to pursue the attainment of full potential
Apply clinical decision making to the recognition of signs and symptoms of chronic diseases and complex health conditions in clinical assessment, before, during, and after exercise.	2 - Practical examination 3 - Written examination	Empowered, having both the capacity and confidence to pursue the attainment of full potential
Identify contraindications to exercise for chronic disease rehabilitation, and apply this knowledge by taking appropriate action.	1 - Case study 2 - Practical examination 3 - Written examination	Empowered, having both the capacity and confidence to pursue the attainment of full potential
Access and apply scientific research and current clinical guidelines to clinical decision-making in exercise physiology practice.	1- Case study 3- Written examination	Creative and critical thinkers, generating original ideas and concepts, and appreciating innovation and entrepreneurship

5. Am I eligible to enrol in this course?

Refer to the [USC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1 Enrolment Restrictions

This course is only available to students enrolled in SC346 Bachelor of Clinical Exercise Science or SC304 Bachelor of Clinical Exercise Physiology. This course is specifically for the clinical development of trainee exercise physiologists, and is restricted to students in a program accredited (or pending accreditation) with Exercise and Sport Science Australia at the Exercise Physiologist level.

5.2 Pre-requisites

SPX231, SPX300, SPX301, SPX302, SPX306, SPX322, SPX331,

5.3 Co-requisites

You are required to take at least one 400 level clinical placement in the current academic year.

5.4 Anti-requisites

Nil

5.5 Specific assumed prior knowledge and skills (where applicable)

It is assumed that you will build upon your knowledge of cardiorespiratory and metabolic conditions gained in SPX301, your clinical assessment skills developed in SPX306, and your skills in clinical history taking, record keeping, and evidence-based clinical decision making gained in SPX300.

6. How am I going to be assessed?

6.1 Grading scale

Standard – High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL)

6.2 Assessment Tasks

Task No.	Assessment Tasks	Individual or Group	Weighting %	What is the duration / length?	When should I submit?	Where should I submit it?
1	Case study	Individual	10%	20 minutes / estimate 500 words	Friday of first week	In class
2	Practical examination	Individual	40%	20 minutes	Friday of first week	In class
3	Written examination	Individual	50%	120 minutes / estimate 3000 words	Friday of second week	In class
			100%			

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Assessment Task 1: Case study

Goal:	To identify clinical history, physical examination, referral, and diagnostic testing required to commence clinical decision-making in an initial consultation with a client presenting with a chronic disease or complex health condition.		
Product:	Using the case description provided (randomly selected from a small series of case descriptions), you will write a plan of an initial clinical consultation. This plan will likely include a list of the questions you will ask, physical examinations you will undertake, referrals you would make, and diagnostic tests you would seek, in order to gather sufficient information to commence clinical decision-making.		
Format:	Individual written response to a single clinical case description.		
Criteria:	<ul style="list-style-type: none"> • Application of discipline knowledge of chronic diseases for clinical decision making and care planning • Recognised skills and procedures are set out in the plan • Plan demonstrates clinical decision making • Plan embeds understanding of role, skills, and scope of practice of an exercise physiologist in chronic disease rehabilitation <p>You will receive a numerical grade (mark out of 10) against a grading rubric.</p>		
Generic skills assessed	Introductory	Developing	Graduate
Problem solving	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Assessment Task 2: Practical examination

Goal:	To demonstrate selected skills in clinical history taking, physical examination, clinical assessment, chronic disease sign and symptom identification.		
Product:	You will role play a clinical consultation of the case study provided for you in Task 1. .		
Format:	You will perform the role of the "exercise physiologist". Another student (not under assessment) will play the role of the "client". You will retain your written response to the case study, prepared in Task 1, for the duration of this assessment as reference throughout the role play.		
Criteria:	<ul style="list-style-type: none"> • Applies clinical decision making to scenario • Applies recognised procedures to physical assessment practices • Applies knowledge to identify signs & symptoms • Applies knowledge to identify contraindications to exercise for rehabilitation • Presentation and use of appropriate terminology • Demonstrates understanding of scope of practice • Represents and explains key discipline concepts to assessment <p>You will receive a numerical result (mark out of 40) for this examination. Results will be determined against a categorical grading rubric. Categorical grades will be converted to numerical scores.</p>		
Generic skills assessed	Introductory	Developing	Graduate
Communication	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Applying technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Assessment Task 3: Written examination

Goal:	To demonstrate critical knowledge of chronic diseases, signs, symptoms, treatments, and contraindications to exercise treatment.		
Product:	You will complete a written examination comprising multiple choice questions and short answer questions.		
Format:	Individual written examination.		
Criteria:	<p>Correct answers to the questions will demonstrate:</p> <ul style="list-style-type: none"> • Knowledge of chronic diseases. • Knowledge of medical, surgical, and allied health treatments for a range of complex and chronic disease conditions. • Application of knowledge to identify signs and symptoms of chronic diseases reported before, during, and after exercise. • Apply knowledge to identify contraindications to exercise for chronic disease rehabilitation and select appropriate actions. <p>You will receive a numerical result (mark out of 50) for this examination.</p>		
Generic skills assessed	Introductory	Developing	Graduate
Problem solving	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

7. What are the course activities?**7.1 Directed Study Hours**

Course delivered as an intensive over 2 weeks full time. Each week comprises workshops and practical / simulation sessions, as well as written and practical assessments.

First week: Monday – Thursday mornings 4 x 3hour workshops, Monday – Thursday afternoon 4 x 3.5 hour practical / simulation, Friday allocated for written and practical assessments.

Second week: Monday – Thursday mornings 4 x 3hour workshops, Monday – Thursday afternoons 4 x 3.5 hour practical / simulation, Friday allocated for written and practical assessments.

7.2 Teaching Semester/Session(s) Offered

Sippy Downs: Session 2

7.3 Course content

Teaching Week / Module	What key concepts/content will I learn?	What activities will I engage in to learn the concepts/content?	
		Directed Study Activities	Independent Study Activities
Monday of first week	Being a clinician Clinical reasoning Diagnostic sieve Exercise physiologist's scope of practice Code of conduct Professional communication Clinical record keeping	Workshop	Pre-class readings and resources for each day available via Blackboard.
	Blood pressure Physiology of hypertension Hypertension medication and mode of action Physical examination:, pulses, pressures, and ABI	Practical	

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Tuesday of first week	Renal conditions: physiology, pathophysiology, and the role of exercise	Workshop	
	Exercise testing and programming for clients with chronic kidney disease. Exercise prescription for renal conditions Exercise during dialysis Post-transplant exercise considerations	Possible site visit: Nambour renal unit	
Wednesday of first week	Polycystic ovary syndrome Failure to conceive Gestational diabetes In vitro fertilisation	Workshop	Pre-class readings and resources for each day available via Blackboard.
	Exercise testing and programming for women with impaired glucose metabolism during pregnancy Post-partum exercise programming Fertility-related contraindications to exercise	Practical	
Thursday of first week	Examples of chronic diseases and complex health conditions: Obesity Dia-besity Metabolic syndrome Type I and Type II diabetes	Workshop	
	Referrals workshop Case studies: cardiac failure, compromised kidney function, gestational diabetes, post-partum, chronic heart, lung, and vascular diseases	Practical / Role play	
Friday of first week	Assessment Task 1: Case Study Assessment Task 2: Practical Examination		
Monday of second week	Connecting and communicating with your clients Psychosocial factors associated with medical conditions	Workshop	Pre-class readings and resources for each day available via Blackboard.
	Therapeutic relationships and professional boundaries Case studies	Simulation / Practical	
Tuesday of second week	Cancer: physiology, pathophysiology, and treatment.	Workshop	
	Introduction to exercise in cancer care	Simulation / Practical	
Wednesday of second week	Cancers: primary and secondary Cancer treatments: surgery, chemotherapy, radiotherapy 5 year survival When clients die	Workshop	
	Exercise testing and programming for clients with terminal illnesses, during and post-chemotherapy.	Possible site visit: Bloomhill Cancer Care Centre	

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Thursday of second week	Exercise is medicine Evidence base for psychiatric, metabolic, cardiovascular, and pulmonary conditions Exercise for the frail aged Caring for yourself in clinical practice	Workshop	Pre-class readings and resources for each day available via Blackboard.
	Case studies to review key concepts Practice exam	Simulation / Practical	
Friday of second week	Assessment Task 3: Written Examination		

Please note that the course activities may be subject to variation.

8. What resources do I need to undertake this course?

Please note that course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Blackboard site. Please log in as soon as possible.

8.1 Prescribed Text(s)

By Year 4 you are expected to have acquired a selection of textbooks that will form resources for this course. Content for this course is not drawn from a single principal text, but from a wide range of sources, including journal articles, clinical guidelines, government reports, and textbooks. Open access resources will be provided via Blackboard. The text listed below is suggested if you do not own a suitable alternative. Cameron M, Selig S, Hemphill D. (2011) Clinical Exercise - a case-based approach. Elsevier, Sydney. This text is also available as an i-book.

8.2 Specific Requirements

You may wish to purchase a personal set of clinical tools, comprising: sphygmomanometer, stethoscope, tailor's tape measure (150cm, flexible). It is expected that you would retain and use these tools in your clinical practice.

9. Risk management

Health and safety risks have been assessed as low. It is your responsibility to research and understand risks specific to the course and to review the USC's health and safety principles by viewing the online induction training for students. Students are advised that partial disrobing for examination of surface anatomy is an inherent requirement of the course to prepare students for professional practice. The course also includes participation in some exercise and off-campus field trips (respite center). If students have concerns about these activities they are advised to contact the Course Coordinator. The course coordinator will take all reasonable steps to ensure risks are minimised.

10. What administrative information is relevant to this course?

10.1 Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

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In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

10.2 Assessment: Additional requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

- a) The final mark is in the percentage range 47% to 49.4%
- b) The course is graded using the Standard Grading scale
- c) You have not failed an assessment task in the course due to academic misconduct

10.3 Assessment: Submission penalties

Late submission of assessment tasks will be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day
- 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task.

Weekdays and weekends are included in the calculation of days late.

To request an extension, you must contact your Course Coordinator and supply the required documentation to negotiate an outcome.

10.4 Study help

In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to [Student Hub](#).

Contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au

10.5 Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability

Visit the USC website:

<http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.6 General Enquiries

In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au