

SPX302 Exercise in Musculoskeletal Health

School: School of Health - Sport and Exercise Science

2023 | Semester 2

UniSC Sunshine Coast

**BLENDED
LEARNING**

Most of your course is on campus but you may be able to do some components of this course online.

Please go to usc.edu.au 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 advanced course provides opportunities for you to develop knowledge and skills that are required for independent and team provision of professional sport and exercise care for people with musculoskeletal issues. You will be directed to explore a client-focused and evidence-based approach. This course includes knowledge you will need when working with clients to achieve their functional and sporting performance goals, and to develop and deliver appropriate exercise programs for individuals and groups with musculoskeletal health concerns.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Various learning materials are provided before each of the thirteen teaching weeks of semester to facilitate students’ exploration of and engagement with targeted knowledge and concepts.	2hrs	Week 1	13 times
Tutorial/Workshop 1 – This Workshop is used to - enhance the enhance theoretical application of knowledge and concepts from learning materials before their practical application in labs - explore questions regarding the week’s topics - facilitate deeper engagement with learning materials. At least one week in the semester will require students to explore learning materials independently without a related workshop.	2hrs	Week 1	12 times
Laboratory 1 – Labs focus on the practical application of knowledge and concepts and primarily take the form of scenario simulation between the clinician and patient. At least one week in the semester will require students to explore a topic independently and guided by online learning materials (i.e. no on-campus lab will be scheduled that week).	2hrs	Week 1	12 times

1.3. Course Topics

Introduction to clinical reasoning

Evidence based practice

Client focused care and professional issues

Biopsychosocial and pain considerations

Differences in tissue responses to injury, disuse and exercise

Issues across the lifespan Kinetic chain control debate and application

Musculoskeletal issues by region of the body

Exploring solutions for exercise adaptation for clients with specific musculoskeletal health concerns

In-depth team care of an individual with musculoskeletal health concerns

2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study 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?

COURSE LEARNING OUTCOMES		GRADUATE QUALITIES
On successful completion of this course, you should be able to...		Completing these tasks successfully will contribute to you becoming...
1	Demonstrate foundational professional knowledge of exercise theory, practices and principles in the context of care of clients with musculoskeletal health concerns.	Knowledgeable
2	Demonstrate professional skills (e.g. code of conduct, written documentation, assessment and intervention skills).	Engaged
3	Competently apply research of musculoskeletal health and exercise evidence to individuals in your care and in the design and delivery of tailored exercise programs.	Empowered

5. Am I eligible to enrol in this course?

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

5.1. Pre-requisites

SPX221 and (SPX201 or SPX202)

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

Resuscitation and first aid competencies Gross human anatomy and human physiology (incl. homeostasis and generic healing) The acute effects and management of musculoskeletal injury. The language of human movement and the roles of individual muscles in function. Common parameters for exercise prescription (e.g. acute training variables), types of fitness (e.g. strength, speed and stamina) and adaptations to load (e.g. specificity and progressive adaptations) Common musculoskeletal injuries and their basic initial assessment (e.g. systems approach, TOTAPS) The use of client assessment processes (i.e. client interview and goal setting), interview tools (e.g. ESSA pre exercise questionnaire), movement screening tools (e.g. SPX300 functional battery) and the precise assessment of movement parameters (e.g. range of motion measures, standardised measures of function and fitness)

6. How am I going to be assessed?

6.1. Grading Scale

Limited Grading (PNP)

Pass (PU), Fail (UF). All assessment tasks are required to be passed for successful completion of the course.

6.2. Details of early feedback on progress

Early feedback on progress is first offered via the regular quizzes, which commence with the Week 2 Quiz (Task 2a; due on the morning prior to the Week 2 Q&A Workshop). The quizzes relate to “must know” professional knowledge and competencies and as such, all questions must be answered successfully. The difficulty of this challenge is offset by offering unlimited attempts prior to the due date. This provides students with the opportunity to demonstrate assumed prior knowledge, facilitates scaffolding of learning as part of growth across programs and sensitises students to important clinical questions that are explored at greater depth in classes.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Code of Conduct	Individual	Continuous	Throughout teaching period (refer to Format)	To Supervisor
All	2a	Quiz/zes	Individual	1 hr per week	Throughout teaching period (refer to Format)	Online Test (Quiz)
All	2b	Practical / Laboratory Skills	Individual	1 hr per week	Throughout teaching period (refer to Format)	In Class
All	3a	Examination - Centrally Scheduled	Individual	2hrs	Exam Period	Online Test (Quiz)
All	3b	Practical / Laboratory Skills	Individual	1hr (incl. reading)	Exam Period	To be Negotiated

All - Assessment Task 1: Code of Conduct

GOAL:	This task ensures that you demonstrate professional and ethical conduct required for ESSA (Exercise & Sport Science Australia) and the University's policies covering student conduct. This is a continuous assessment as you are required to demonstrate care, respect and professional behaviour across the entire suite of activities that you will be engaged in while in the professional course of SPX302.					
PRODUCT:	Code of Conduct					
FORMAT:	During your entire course experience, you are required to conduct yourself in a professional, respectful and appropriate manner.					
CRITERIA:	No.					Learning Outcome assessed
	1	Behaviour that is in accordance with the ESSA's Code of Professional Conduct and Ethical Practice				1 2 3
	2	Adherence to USC's Student Conduct - Governing Policy				2

All - Assessment Task 2a: Foundation: Quizzes

GOAL:	To facilitate your development of essential disciplinary knowledge and critical evaluation. You will be assessed on your ability to answer questions that explore the consideration and critical evaluation of musculoskeletal health principles and evidence. This will also provide you with important feedback to make early and more informed decisions about your engagement in the course. Earlier quizzes tend to focus on applying essential pre-requisite and new learning experiences in exercise for musculoskeletal health (e.g. principles of sports medicine and musculoskeletal health, professional practice, applied anatomy, healing and evidence-based practice). Subsequent quizzes involve more challenging questions which provide you with important feedback regarding your progress towards the skilled application of knowledge in the field.										
PRODUCT:	Quiz/zes										
FORMAT:	<p>Individual online quizzes consisting of no more than 50 questions (often True/False, MCQ's, multiple answer and/or fill in the blank) which relate to the coming and/or previous weeks' learning materials and experiences.</p> <p>The quizzes are named by the week they are due. They will be available on Canvas after the previous week's classes and will fall due on the morning of the Q&A Workshop (e.g. the Week 2 Quiz will be available from noon the day after the last lab in Week 1 and is due at 8 am on the day of the Week 2 Q&A Workshop)</p> <p>NOTE –</p> <p>Unlimited attempts are allowed prior to the quiz falling due Each week at least one of your attempts must have ALL questions answered correctly to pass this task</p> <p>Applications for assessment extension (AAE) must be based on valid grounds and must be submitted prior to the due date (as per the Application for Assessment Extension (AAE) procedures of the School of Health and Sport Sciences, FoSHEE, USC).</p> <p>You are encouraged in the strongest possible terms to complete the quiz while logged into a USC computer to avoid connectivity and compatibility issues (as regularly occurs with unstable personal or off campus Canvas access).</p> <p>If you encounter an IT issue that prevents you from successfully completing the quiz before the due date, you must take a screenshot, email USC's IT services and cc your course coordinator</p>										
CRITERIA:	<table> <thead> <tr> <th>No.</th><th></th><th>Learning Outcome assessed</th></tr> </thead> <tbody> <tr> <td>1</td><td>You will be assessed on your ability to demonstrate knowledge and understanding of musculoskeletal principles and evidence (incl. professional issues and the effects of exercise, injury and disuse on exercise prescription, tissue responses/functions)</td><td>1</td></tr> <tr> <td>2</td><td>Each week at least one of your attempts must have ALL questions answered correctly to pass this task</td><td>1</td></tr> </tbody> </table>	No.		Learning Outcome assessed	1	You will be assessed on your ability to demonstrate knowledge and understanding of musculoskeletal principles and evidence (incl. professional issues and the effects of exercise, injury and disuse on exercise prescription, tissue responses/functions)	1	2	Each week at least one of your attempts must have ALL questions answered correctly to pass this task	1	
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2	Each week at least one of your attempts must have ALL questions answered correctly to pass this task	1									

All - Assessment Task 2b: Foundation: Essential Skills

GOAL:	This is an essential component of your graduate professional package that you will develop and evidence in an e-portfolio. It is necessary for you to complete all elements for accreditation and graduation. You will demonstrate your proficiency in undertaking practical skills that have been identified as being essential and critical in the field.		
PRODUCT:	Practical / Laboratory Skills		
FORMAT:	<p>After related learning opportunities in exercise in musculoskeletal health you will be required to demonstrate essential professional skills. These relate to different aspects of clinical practice. For example; record keeping, professional communication, literature searching and evaluation for application in the care of a client/s, demonstration of specific safety checks & instructions, assessment of a client, leading exercise with individuals and groups. Hence, the format will vary as necessitated by the nature of the task (e.g. completion of a document for professional communication versus creating a video vignette demonstrating safe and effective assessment and intervention skills). See Canvas for further information. Specific tasks will change between years in response to changes in the field, accreditation and program design. The examples below are foreseen as most likely to occur each year:</p> <p>Written communication skills will require production of a permanent document with client, author, time and date clearly noted (e.g. image of hard copy or non-modifiable e-document).</p> <p>For time critical practical skills or skills where industry demands safe and effective capacity without supervision or feedback, you will be required to demonstrate these live in class with a colleague.</p> <p>For other practical skills you will create a video vignette that demonstrates your competent practice.</p> <p>Regardless of the format, a tutor will determine your competency, provide feedback as necessary and record your grade for each task in Canvas. Hence, Canvas will provide the source of evidence for demonstration of the skills.</p> <p>For most essential skills you will need to work with others, both in and outside of class, to simulate occasions of care. Hence, you must make reasonable efforts to take your turn to role play a client such that one of your peers can demonstrate their competent execution of skills.</p> <p>[Note - In the context of competency based training and assessment of practical skills, if you do not demonstrate competent practice on your first attempt you will be given the opportunity to resubmit.]</p>		
CRITERIA:	No.		Learning Outcome assessed
	1	You will be required to demonstrate safe and effective practice:	1 2
	2	This includes performance and communicating your rationale (e.g. for assessment, decision making and/or intervention).	1 2 3

All - Assessment Task 3a: Professional Practice: Exam Final

GOAL:	To facilitate your development of understanding and analysis of musculoskeletal health knowledge and principles. This includes the application of your learning to specific case scenarios. Hence, this task relates directly to professional competencies.		
PRODUCT:	Examination - Centrally Scheduled		
FORMAT:	<p>A two (2) hour online exam consisting of True/False and multiple choice questions (MCQ's) that explore questions from across the course.</p> <p>Questions vary in complexity from questions requiring recall of musculoskeletal health knowledge and principles to their application in challenging case scenarios.</p> <p>The areas explored across the exam include (but are not limited to):</p> <ul style="list-style-type: none"> The principles of musculoskeletal health and rehabilitation strategies Importance of professional issues and clinical reasoning The effects of exercise, injury and disuse on exercise prescription, tissue responses and function Understanding of the differences in injury and healing processes with different tissues Principles of safe and effective exercise prescription Management of a client with an ongoing musculoskeletal issue (e.g. low back pain) Knowledge and treatment of common musculoskeletal health issues Special considerations in athletes, clients and patients across the lifespan (including specific populations such as children, older people, females and people with disabilities) Identifying appropriate exercises for specific cases including detailed rationales and acute training variables <p>All questions will be allocated one mark per question. Total marks must reach 50% (rounded) or greater to pass this task.</p> <p>A formative take home theory exam will be provided to assist your growth in learning and preparation for this end of semester exam. This written examination will be made available on Canvas for you (midday on the day after the last lab in Week 6) to take home, complete and bring to the Week 7 Q&A Workshop where we explore both the exam questions and your questions.</p>		
CRITERIA:	No.		Learning Outcome assessed
	1	Questions will be framed to test your ability to describe, explain and apply the discipline knowledge, principles and skills covered across the semester.	1 2
	2	Most short answer questions require you to provide a clinical example to illustrate your ability to apply your learning to the care of individuals or groups with musculoskeletal health concerns and a variety of functional goals.	1 2 3

All - Assessment Task 3b: Professional Practice: Practical Exam

GOAL:	In this practical evaluation you will explain and apply musculoskeletal theory and professional considerations in the design and delivery of tailored exercise programs		
PRODUCT:	Practical / Laboratory Skills		
FORMAT:	<p>This will occur during the University's Central Examination Period, where you will act as a sports and exercise scientist in providing care to an individual with musculoskeletal health concerns.</p> <p>You will complete one (1) simulated scenario randomly selected, on the spot, from a pool of scenarios.</p> <p>You will have sufficient reading time (~20 minutes TBC) to familiarise yourself with the (simulated) client's case details and plan exercises and communication strategies before guiding your client through a short exercise session (~15 minutes TBC).</p> <p>The client will be role played by a fellow student (i.e. your prac partner) allocated to you no later than the end of week 13. Of course, this means that you will also be required to act as a client for your prac partner's scenario as they take their turn to complete the practical exam.</p> <p>If physical contact with your peer is not allowed (e.g. Covid-19 distancing restrictions), students may be required to complete the task via TELT (e.g. via Zoom to simulate a telehealth appointment or by submitting a video demonstrating safe and effective care for their scenario). Further details will be provided in class and via Canvas regarding how this will happen in practice.</p> <p>The criteria sheet (rubric) will be available on Canvas and will be discussed in class</p>		
CRITERIA:	No.		Learning Outcome assessed
	1	Respectful, ethical and professional conduct (e.g. establishing informed consent, providing a psychologically safe environment for client care, respecting your client's beliefs and wishes)	2
	2	Safe practice including identification and management of safety concerns	1 2 3
	3	Ability to verbally communicate your understanding of musculoskeletal health theory and clinical reasoning for interventions	1 2 3
	4	Demonstrated effectiveness of exercise for the (simulated) client	1 2 3
	5	Timeliness and optimisation of the productivity of the exercise session in the limited time available	2

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

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

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

8.1. Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below. Resources may be required or recommended.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Required	Mark Hutchinson, Peter Brukner, Karim Khan, Ben Clarsen, Paul McCrory, Ann Cools, Kay Crossley, Jill Cook, Prof Roald Bahr	2017	BRUKNER & KHANS CLINICAL SPORTS MEDICINE INJURIES (also available as an e-text via USC Library)	5th Edition	McGraw-Hill Education / Australia
Required	Peter Brukner, Karim Khan	2019	CLINICAL SPORTS MEDICINE: THE MEDICINE OF EXERCISE (also available as an e-text via USC Library)	5th	McGraw-Hill Education / Australia

8.2. Specific requirements

Course Focus Requirements:

In this course students will be required to take part in practical sport and exercise science activities, which may include undertaking vigorous exercise, physical contact with other members of the class, require wearing specialist clothing, using sports equipment, partial disrobing, or connection to instruments for scientific measurement. This course has a particular focus on treating all individuals with respect. This is essential in clinical practice (incl. simulations) where there are well recognised risks of harm with disrespectful behaviour and power imbalances in the client-professional relationship. Importantly, to ensure a safe environment for all, students may be directed to leave the class and/or course if they demonstrate disrespectful behaviour.

Clothing Requirements:

You will need clothes suitable for clinical assessment and exercise for all classes. You should wear clothes that allow you to move whilst preserving your modesty (e.g. gym clothes or similar). In particular you should prepare by wearing clothing that allows, with your informed consent only, the clinician to observe the body region that is the focus of the week and the lower back whenever core control is relevant.

Course Specific Risks:

This course does include various activities with some risk (e.g. musculoskeletal injury with physical assessment and exercise interventions; side effects such as allergy and skin trauma with sports taping) but overall the risk is low or negligible given that the demands of the learning experiences are less than reasonably expected in general sport and activities of daily living, and because musculoskeletal health care (incl. risk reduction and clinical care) is the focus of this course. Whilst the course normally fits with a "general" course risk rating of "low risk", in the Covid-19 pandemic context it needs to be recognised that with the clinical skills training in this course there it is possible that a student or staff member may contract Covid-19 in class and that the impact of Covid-19 can vary from being asymptomatic and sub-clinical to catastrophic outcomes (including death) for the infected person or those they subsequently infect. Hence, the "possible" likelihood of Covid-19 infection and its associated "possible" "catastrophic" outcome suggests that the overall risk may be "moderate" or "high" depending upon infection rates and specific variants of the pathogen.

Covid-19 Dependent Requirements:

Due to Covid-19, it is possible that classes may have to shift to being conducted via Technology Enabled Learning and Teaching (TELT).

Technology Requirements:

Access to a reliable computer (including video and audio options for Zoom)

Reliable internet connectivity and sufficient bandwidth to enable active engagement in TELT classes (incl. the use of Zoom)

Engagement Requirements:

Engaging in face-to-face classes as this course relies on face-to-face classes to develop clinical skills in Sports and Exercise Medicine that are essential for both assessment tasks and course outcomes.

9. How are risks managed in this course?

Risk assessments have been performed for all laboratory classes and a moderate level of health and safety risk exists. Moderate risks are those associated with laboratory work such as working with chemicals and hazardous substances. You will be required to undertake laboratory induction training and it is also your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the [online induction training for students](#), and following the instructions of the University staff

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.

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

10.2. Assessment: Additional Requirements

Limited Graded Course:

This course will be graded as Pass in a Limited Grade Course (PU) or Fail in a Limited Grade Course (UF) as per clause 4.1.3 and 4.1.4 of the Grades and Grade Point Average (GPA) - Institutional Operating Policy of the USC.

In a course eligible to use Limited Grades, all assessment items in that course are marked on a Pass/Fail basis and all assessment tasks are required to be passed for a student to successfully complete the course. Supplementary assessment is not available in courses using Limited Grades.

10.3. Assessment: Submission penalties

You must contact your Course Coordinator and provide the required documentation if you require an extension or alternate assessment.

10.4. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: [07 5430 1168](tel:0754301168) or using the [SafeZone](#) app. For general enquires contact the SafeUniSC team by phone [07 5456 3864](tel:0754563864) or email safe@usc.edu.au.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call [07 5430 1226](tel:0754301226) or email studentwellbeing@usc.edu.au.

10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the [Learning Advisers](#) web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au.

10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to [Student Hub](#), email studentwellbeing@usc.edu.au or call 07 5430 1226.

10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, [AccessAbility Services](#) can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to [Student Hub](#), email AccessAbility@usc.edu.au or call 07 5430 2890.

10.8. 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
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit <https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.9. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The [Student Charter](#) sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.10.General Enquiries

In person:

- **UniSC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **UniSC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **UniSC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au