

SPX201 Functional Anatomy

School: School of Health - Sport and Exercise Science

2024 Semester 1

UniSC Sunshine Coast
UniSC Moreton Bay

**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

Functional Anatomy uses the basic structural knowledge provided in Human Anatomy to develop an understanding of the functional significance of the structures of the musculoskeletal system, within a movement setting (covering mechanical properties and functional characteristics). In addition to normal function, mechanisms of and adaptations to, common injuries, disease and rehabilitation is discussed. Although this course covers areas of dysfunction and the biological effects of rehabilitation, it is NOT a course in clinical anatomy, or musculoskeletal rehabilitation.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Pre-prepared learning materials across a range of formats	1hr	Week 1	13 times
Tutorial/Workshop 1 – Discussion of learning materials	2hrs	Week 1	13 times
Laboratory 1 – Application of learning materials through practical tasks and activities	2hrs	Week 1	13 times

1.3. Course Topics

Mechanical properties of the musculo-skeletal system

Functional anatomy of the upper extremity (shoulder, elbow, and wrist)

Functional anatomy of the spine, trunk, pelvis, and hip

Functional Anatomy of the lower extremity (knee, ankle, and foot)

Introduction to typical walking gait, its development, and changes across the lifespan

2. What level is this course?

200 Level (Developing)

Building on and expanding the scope of introductory knowledge and skills, developing breadth or depth and applying knowledge and skills in a new context. May require pre-requisites where discipline specific introductory knowledge or skills is necessary. Normally, undertaken in the second or third full-time year of an undergraduate programs.

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 Describe human movement using the appropriate terms and concepts to allow effective communication with colleagues and fellow practitioners.	Knowledgeable
2 Explain how the basic mechanical properties of the structures of the musculo-skeletal system relate to their different functional roles during human movement.	Empowered
3 Follow a structured process to identify the roles of, and relationships between, structures of the musculo-skeletal system during human movement.	Knowledgeable
4 Read and interpret research relating to the functional anatomy of the of the musculo-skeletal system during human movement.	Creative and critical thinker
5 Recognize some of the functional changes that occur in the musculo-skeletal system due to injury, illness, or impairment.	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

LFS122

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

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

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

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

6.2. Details of early feedback on progress

The first of the study block quizzes will take place in week 4. Prior to each quiz, study questions with feedback will be provided to help you prepare for each quiz.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Quiz/zes	Individual	45%	35 minutes each	Throughout teaching period (refer to Format)	Online Test (Quiz)
All	2	Practical / Laboratory Skills	Individual	30%	Completed over the course of the semester	Throughout teaching period (refer to Format)	Online Submission
All	3	Examination - Centrally Scheduled	Individual	25%	90 minutes	Exam Period	Online Test (Quiz)

All - Assessment Task 1: Quizzes

GOAL:	These quizzes will enable you to demonstrate your ability to identify the basic biomechanical properties of the structures of the musculo-skeletal system, describe human movement, and identify the roles and explain relationships between structures of the musculo-skeletal system during human movement.																
PRODUCT:	Quiz/zes																
FORMAT:	Submit: Weeks 4, 6, 8, 12, 13 There will be five quizzes throughout the semester. Each quiz will require a response to a combination of different question types. The content for each quiz will be sourced from any of the learning materials for the corresponding study block.																
CRITERIA:	<table border="1"> <thead> <tr> <th>No.</th> <th></th> <th>Learning Outcome assessed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Use of correct terms and concepts</td> <td>1</td> </tr> <tr> <td>2</td> <td>Explanation of how the basic mechanical properties of structures such as bone, cartilage, muscle, tendon, and ligaments relate to their different functional roles during human movement</td> <td>2 5</td> </tr> <tr> <td>3</td> <td>Identification of the roles of, and relationships between, structures of the musculo-skeletal system during human movement</td> <td>3 5</td> </tr> <tr> <td>4</td> <td>Conveyance of information clearly and succinctly</td> <td>1</td> </tr> </tbody> </table>	No.		Learning Outcome assessed	1	Use of correct terms and concepts	1	2	Explanation of how the basic mechanical properties of structures such as bone, cartilage, muscle, tendon, and ligaments relate to their different functional roles during human movement	2 5	3	Identification of the roles of, and relationships between, structures of the musculo-skeletal system during human movement	3 5	4	Conveyance of information clearly and succinctly	1	
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All - Assessment Task 2: Applied functional anatomy workbook

GOAL:	This task has been designed to enable you to develop your functional anatomy communication skills and apply functional anatomy knowledge to different scenarios. This workbook also enables you to demonstrate your competency of key professional skills and practices.
PRODUCT:	Practical / Laboratory Skills
FORMAT:	The workbook will be able to be purchased from MAPS. The workbook contains tasks and activities that will require you to demonstrate practical skills, collect and interpret data, analyse human movement, discuss the effect of injury, illness and impairment on human movement and function, and answer questions related to material on each study block. Most of these tasks and activities can be completed within class. However, some tasks and activities may need to be completed online and/or outside of the scheduled class times. It will often be beneficial to prepare for some of the tasks and activities prior to coming to class. Some tasks and activities may require you to work collaboratively with your peers. Some form of workbook submission will be required in weeks 3-13 to check your understanding of the tasks and activities.

CRITERIA:	No.	Learning Outcome assessed	
	1	Reading and interpretation of research relating to the functional anatomy of the of the musculo-skeletal system during human movement	4 5
	2	Use of a structured approach to reasoning when identifying exercises for muscles	3
	3	Effective communication using correct terms and concepts	1
	4	Conveyance of information clearly and succinctly	1

All - Assessment Task 3: Examination

GOAL:	To assess your ability to apply the information that you have learnt throughout the course to real world practical scenarios		
PRODUCT:	Examination - Centrally Scheduled		
FORMAT:	The structure may consist of a variety of different question types.		
CRITERIA:	No.	Learning Outcome assessed	
	1	Description of human movement using the correct terms and concepts	1
	2	Identification of the basic mechanical properties of structures such as bone, cartilage, muscle, tendon, and ligaments	2
	3	Explanation of relationships between structures of the musculo-skeletal system during human movement	3 5
	4	Follow a structured process to determine the role of muscles in different movement tasks	3 5
	5	Convey information clearly and succinctly	1

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
Recommended	Donald A. Neumann	2017	Kinesiology of the Musculoskeletal System	(3rd edition)	Elsevier
Recommended	Carol A. Oatis	2017	Kinesiology: the mechanics and pathomechanics of human movement	(3rd edition)	Wolters Kluwer

8.2. Specific requirements

It will be beneficial to have a USB memory stick / flash drive (at least 4GB) for this and future courses so you can compile the relevant learning materials. These can be purchased relatively cheaply (less than \$15 from most major outlets).

9. How are risks managed in this course?

Risk assessments have been performed for all studio and laboratory classes and a low level of health and safety risk exists. Some risk concerns may include equipment, instruments, and tools; as well as manual handling items within the laboratory. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the 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

Eligibility for Supplementary Assessment

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

The final mark is in the percentage range 47% to 49.4%

The course is graded using the Standard Grading scale

You have not failed an assessment task in the course due to academic misconduct

10.3. Assessment: Submission penalties

Late submission of assessment tasks may 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 to negotiate an outcome.

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