

SPX121

Exercise Prescription and Programming I

School: School of Health - Sport and Exercise Science

2026 | Trimester 2

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 unisc.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 course enables you to understand the principles behind exercise prescription and programming, and to gain some of the practical skills in safe and effective lifting technique, with a focus on strength and conditioning. You will be able to identify the principles of exercise, and be introduced to the basic principles of overload, frequency, and intensity. You will understand and identify safety and correct technique in lifting principles.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Pre-recorded concept videos and associated activity	2hrs	Week 1	12 times
Laboratory 1 – On campus laboratory	2hrs	Week 1	12 times
Tutorial/Workshop 1 – Online zoom session for review	2hrs	Week 6	2 times

1.3. Course Topics

Principles of exercise prescription and programming, benefits and risks of exercise training, exercise execution, lifting technique and safety, flexibility, range of movement, muscular fitness, and cardiorespiratory fitness.

2. What level is this course?

100 Level (Introductory)

Engaging with discipline knowledge and skills at foundational level, broad application of knowledge and skills in familiar contexts and with support. Limited or no prerequisites. Normally, associated with the first 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 MAPPING	PROFESSIONAL STANDARD MAPPING *
On successful completion of this course, you should be able to...	Completing these tasks successfully will contribute to you becoming...	Exercise and Sports Science Australia
1 Explain exercise prescription and program design decisions using knowledge of human factors influencing participation and performance.	Knowledgeable	2.2.5, 2.2.8, 3.2.3, 4.2.1, 4.2.1, 4.2.10, 4.2.3, 4.2.6, 7.2.6, 13.2.1, 13.2.5, 13.2.6
2 Identify and apply how pre-exercise, risk assessment and movement screening results inform decisions about safe exercise participation and risk management and understand when onward referrals are warranted.	Empowered	3.2.1, 3.2.3, 3.2.4, 3.2.7, 4.2.2, 4.2.7, 4.2.8, 7.2.1, 7.2.2, 7.2.6, 7.2.7
3 Explain and apply the principles of exercise progression in client-centred program design.	Creative and critical thinker	3.2.3, 4.2.1, 4.2.1, 4.2.10, 4.2.2, 4.2.3, 4.2.5, 5.2.6, 7.2.6, 13.2.6
4 Outline and apply safe and effective programming prescription of exercise to suit the needs and abilities of healthy adults and diverse populations allowing consideration of social and cultural determinants of health.	Empowered	2.2.1, 2.2.2, 3.2.3, 4.2.1, 4.2.1, 4.2.10, 4.2.2, 4.2.3, 12.2.5, 13.2.1
5 Recognise and apply ethical and professional conduct in interactions with athletes, coaches, work environments.	Ethical	1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, 1.2.7, 7.2.6

* Competencies by Professional Body

CODE	COMPETENCY
EXERCISE AND SPORTS SCIENCE AUSTRALIA	
1.2.1	Practise with integrity within the scope of practice for an AEP, the ESSA Code of Professional Conduct and Ethical Practice, and jurisdictional Codes of Conduct.
1.2.2	Practise in accordance with ethically relevant legislation, regulations, and standards that apply to AEPs including privacy, confidentiality, data security, informed consent, and record-keeping.
1.2.3	Differentiate and select verbal and non-verbal communication strategies that are contextually appropriate, timely, accessible, and respectful to clients, population groups, and relevant others.
1.2.4	Practice with integrity within the scope of training for an Exercise Scientist and the ESSA Code of Professional Conduct and Ethical Practice.
1.2.5	Distinguish roles of exercise professionals and health professionals within exercise science settings and judge when to refer.
1.2.6	Practise collaboratively and effectively with other professionals, including seeking feedback and input to inform decision-making, delegating tasks, and referring to other professionals and services where appropriate.
1.2.7	Practice in accordance with ethically relevant policies, legislation and regulations that apply to exercise science settings including privacy, consent and record keeping.
2.2.5	Evaluate research findings and apply exercise prescription principles to develop recommendations and interventions, including targeted exercise prescription for the purposes of optimising health status, function, recovery, independence, and participation.
2.2.8	Evaluate and apply contextual learning principles and behaviour change strategies to improve health outcomes, increase engagement, motivation, and adherence, and empower self-management of health conditions.

CODE	COMPETENCY
2.2.1	Integrate knowledge of anatomy, physiology, pathophysiology, and other determinants of health and function and apply these to inform safe and effective movement, physical activity, and exercise-based interventions for individuals and population groups throughout all stages of their life.
2.2.2	Examine principles of biopsychosocial care, value-based care, person-centred care and social and cultural determinants of health and apply this to promote health and well-being for individual clients and population groups.
3.2.3	Design exercise-based interventions to maintain and/or improve health and fitness, wellbeing and performance that consider the physiological responses to acute exercise, and the adaptations to chronic exercise.
3.2.1	Formulate appropriate screening processes to evaluate and stratify risk for participation in assessments and interventions, including consideration of appropriate service modalities for clients.
3.2.4	Distinguish, record, report, and appropriately action changing risk factors and adverse signs and symptoms that may arise before, during, and after assessments and interventions.
3.2.7	Distinguish when client needs are outside of scope or competence and take appropriate, timely actions including engaging effectively with other professionals.
4.2.1	Formulate evidence-based exercise prescription, interventions, and recommendations that address health and treatment related client needs, preferences, goals, and abilities, assessment findings, and social and cultural determinants of health.
4.2.10	Design and deliver evidence-based, exercise-based interventions and apply behavioural strategies that meet the needs and preferences of clients.
4.2.3	Analyse a broad range of exercise modalities and select appropriate exercises and equipment to suit the needs and abilities of clients including consideration of social determinants of health.
4.2.6	Identify and explain the common contraindications for participation in exercise and the associated risks.
4.2.2	Interpret data obtained during a client assessment to prescribe, deliver and monitor physical activity and exercise-based interventions.
4.2.7	Identify, interpret, report and take appropriate action regarding adverse signs and symptoms that may arise during exercise, sport and recovery.
4.2.8	Evaluate and monitor exercise-based interventions to ensure client safety.
4.2.5	Select and apply learning cues and movement progressions for teaching and correcting movement and exercise technique.
5.2.6	Analyse and evaluate results from static and dynamic assessments and provide recommendations for exercise prescription.
7.2.6	Select, develop and conduct appropriate protocols for safe, effective and culturally sensitive assessments including risk management and risk assessment concepts associated with the health and assessment of exercise science.
7.2.1	Select and apply appropriate assessment procedures, including screening of appropriate social determinants of health, goal setting, obtaining informed consent and a relevant medical history, and performing a pre-exercise risk assessment and understand when onward referrals are warranted.
7.2.2	Identify and use the common processes and equipment required to conduct accurate and safe health, physical activity and exercise assessments.
7.2.7	Identify the need for guidance or further information from an appropriate health professional and recognise when medical supervision is required before or during an assessment and when to cease a test.
12.2.5	Relate the benefits and risks of physical activity and apply evidence-based principles to recommend appropriate levels of physical activity for diverse populations.
13.2.1	Describe common social determinants of health factors that influence behaviour of health, physical activity and exercise.
13.2.5	Apply behavioural strategies according to the needs and preferences of the individuals and/or population and their progress towards achieving realistic goals.
13.2.6	Demonstrate the ability to communicate effectively and respond appropriately to assist clients from diverse populations to change their health and physical activity behaviours.

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

Enrolled in Program AB101, SC304, SC344, SC347, SC110

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

SPX212

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

Not applicable

5.5. Microcredential Information

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

This course includes an assessment of a professional competency task deemed necessary to meet the Exercise and Sports Science Australia (ESSA) Professional Standards. Therefore, your attendance and participation in practicals/laboratory's and tutorials is expected. Feedback will be provided to you during each of your classes and will provide you with support and guidance to become competent in the ESSA Professional Standards addressed in this course. For any work that is missed you will need to demonstrate to your course provider that you have covered the required material. This will usually take the form of a detailed summary and reflection of the directed study activities and practical skills for the missed class or placement.

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	20%	20 multiple choice questions	Refer to Format	Online Test (Quiz)
All	2	Practical / Laboratory Skills	Individual	30%	30 mins	Week 4	In Class
All	3	Practical / Laboratory Skills	Individual	50%	30 min practical	Refer to Format	In Class

All - Assessment Task 1: Quizzes

GOAL:	Students will complete fortnightly quizzes to test their knowledge on the importance of screening and assessment procedures (including absolute and relative contraindications to exercise), social and cultural determinants of health and pre-exercise risk assessments with a particular focus on identifying when a client should be referred to another healthcare professional. Quizzes will also facilitate students' comprehension of the theoretical foundations necessary for prescribing exercise tailored to the specific needs and requirements of clients.							
PRODUCT:	Quiz/zes							
AUTHORSHIP STATEMENT:								
FORMAT:	Weeks 5,7,9,11,12. Five online quizzes delivered via Canvas on contemporary issues in prescription and programming based on laboratory activities and learning materials.							
CRITERIA:	<table border="1"> <thead> <tr> <th>No.</th> <th></th> <th>Learning Outcome assessed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Correct and complete answers to questions</td> <td>1 3 5</td> </tr> </tbody> </table>	No.		Learning Outcome assessed	1	Correct and complete answers to questions	1 3 5	
No.		Learning Outcome assessed						
1	Correct and complete answers to questions	1 3 5						
GENERIC SKILLS:								

All - Assessment Task 2: Practical Exam

GOAL:	Develop and implement exercise assessments informed by health screenings, client goals and objectives, and movement competencies. This assesses their ability to collect a relevant medical history; perform a pre-exercise screening and risk assessment; conduct a goal setting process; and identify when (or if) onward referral is necessary (e.g., to a GP or allied health professional). Students are also required to conduct interviews with their clients to gather comprehensive information necessary for designing a series of exercise tests. These tests aim to evaluate the clients' current physiological capacity and align with their specific needs and objectives. Students will be assessed on their ability to select and justify appropriate exercise assessments; use assessment data to inform exercise prescription; and monitor and adjust exercise programming based on client goals.										
PRODUCT:	Practical / Laboratory Skills										
AUTHORSHIP STATEMENT:											
FORMAT:	Submission of screening paperwork and the implementation of exercise tests.										
CRITERIA:	<table border="1"> <thead> <tr> <th>No.</th> <th></th> <th>Learning Outcome assessed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Demonstrate knowledge and understanding of exercise prescreening and testing principles</td> <td>1 3 5</td> </tr> <tr> <td>2</td> <td>Application of knowledge by designing exercise tests based on prescreening</td> <td>1 2</td> </tr> </tbody> </table>	No.		Learning Outcome assessed	1	Demonstrate knowledge and understanding of exercise prescreening and testing principles	1 3 5	2	Application of knowledge by designing exercise tests based on prescreening	1 2	
No.		Learning Outcome assessed									
1	Demonstrate knowledge and understanding of exercise prescreening and testing principles	1 3 5									
2	Application of knowledge by designing exercise tests based on prescreening	1 2									
GENERIC SKILLS:											

All - Assessment Task 3: Final Practical Exam and Report

GOAL:	To design and implement an exercise program based off exercise assessment (e.g. exercise prescreening, submax testing, movement competency, strength testing) undertaken in week 4. This is a significant task where you will deliver an exercise program as well as demonstrate and critique exercise technique in a gym setting. This exam is set up in an authentic setting and will enable you to demonstrate safe, effective use of resistance training equipment. You will also submit a report demonstrating your ability to administer a comprehensive screening (including social determinants of health); conduct a goal setting process; obtain informed consent; identify when (or if) referral to a GP or allied health professional is necessary; select appropriate exercise assessments including how they might be adjusted to ensure cultural sensitivity; and design an exercise intervention for a healthy young adult.		
PRODUCT:	Practical / Laboratory Skills		
AUTHORSHIP STATEMENT:			
FORMAT:	Submit: Weeks 11 & 12. 30 minute practical exam in the gym.		
CRITERIA:	No.		Learning Outcome assessed
	1	Demonstrate and communicate exercise technique including posture and balance during exercise	2 5
	2	Explain various exercise testing and measurement procedures	4
	3	Compare and contrast resistance training exercise protocols	4
	4	Demonstrate safe, effective use of resistance training equipment	2
GENERIC SKILLS:			

6.4. Assessment to competency mapping

PROGRAMME DELIVERY MODE	ASSESSMENT TYPE	TITLE	COMPETENCY	TEACHING METHODS
ESSA ACCREDITED EXERCISE PHYSIOLOGIST PROFESSIONAL STANDARDS 2021				
All delivery modes	Practical / Laboratory Skills	Practical Exam	3.2.3	Taught, Practiced, Assessed
			Final Practical Exam and Report	1.2.1
			1.2.2	Taught, Practiced, Assessed
			1.2.3	Taught, Practiced, Assessed
			1.2.6	Taught, Practiced, Assessed
			2.2.1	Taught, Practiced, Assessed
			2.2.2	Taught, Practiced, Assessed
			2.2.5	Taught, Practiced, Assessed
			2.2.8	Taught, Practiced, Assessed

PROGRAMME DELIVERY MODE	ASSESSMENT TYPE	TITLE	COMPETENCY	TEACHING METHODS
			3.2.1	Taught, Practiced, Assessed
			3.2.3	Taught, Practiced, Assessed
			3.2.4	Taught, Practiced, Assessed
			3.2.7	Taught, Practiced, Assessed
			4.2.1	Taught, Practiced, Assessed
			4.2.2	Taught, Practiced, Assessed
			4.2.3	Taught, Practiced, Assessed
	Quiz/zes	Quizzes	2.2.1	Taught, Assessed
			2.2.5	Taught, Practiced, Assessed
			2.2.8	Taught, Assessed
			3.2.1	Taught, Assessed
			3.2.4	Taught, Assessed
			3.2.7	Taught, Assessed
			4.2.1	Taught, Assessed
		4.2.3	Taught, Assessed	
ESSA ACCREDITED EXERCISE SCIENTIST PROFESSIONAL STANDARDS 2020				
All delivery modes	Practical / Laboratory Skills	Practical Exam	1.2.4	Taught, Practiced, Assessed
			1.2.5	Taught, Practiced, Assessed
			1.2.7	Taught, Practiced, Assessed
			3.2.3	Taught, Practiced, Assessed
			4.2.1	Taught, Practiced, Assessed
			4.2.2	Taught, Practiced, Assessed
			4.2.3	Taught, Practiced, Assessed
			4.2.5	Taught, Practiced, Assessed
4.2.6	Taught, Practiced, Assessed			

PROGRAMME DELIVERY MODE	ASSESSMENT TYPE	TITLE	COMPETENCY	TEACHING METHODS
			4.2.7	Taught, Practiced, Assessed
			4.2.8	Taught, Practiced, Assessed
			4.2.10	Taught, Practiced, Assessed
			5.2.6	Taught, Practiced, Assessed
			7.2.1	Taught, Practiced, Assessed
			7.2.2	Taught, Practiced, Assessed
			7.2.6	Taught, Practiced, Assessed
			7.2.7	Taught, Practiced, Assessed
			12.2.5	Taught, Practiced, Assessed
			13.2.1	Taught, Practiced, Assessed
			13.2.5	Taught, Practiced, Assessed
			13.2.6	Taught, Practiced, Assessed
		Final Practical Exam and Report	1.2.4	Taught, Practiced, Assessed
			1.2.5	Taught, Practiced, Assessed
			1.2.7	Taught, Practiced, Assessed
			3.2.3	Taught, Practiced, Assessed
			4.2.1	Taught, Practiced, Assessed
			4.2.2	Taught, Practiced, Assessed
			4.2.3	Taught, Practiced, Assessed
			4.2.5	Taught, Practiced, Assessed
			4.2.6	Taught, Practiced, Assessed
			4.2.7	Taught, Practiced, Assessed

PROGRAMME DELIVERY MODE	ASSESSMENT TYPE	TITLE	COMPETENCY	TEACHING METHODS
			4.2.8	Taught, Practiced, Assessed
			4.2.10	Taught, Practiced, Assessed
			5.2.6	Taught, Practiced, Assessed
			7.2.1	Taught, Practiced, Assessed
			7.2.2	Taught, Practiced, Assessed
			7.2.6	Taught, Practiced, Assessed
			7.2.7	Taught, Practiced, Assessed
			12.2.5	Taught, Practiced, Assessed
			13.2.1	Taught, Practiced, Assessed
			13.2.5	Taught, Practiced, Assessed
			13.2.6	Taught, Practiced, Assessed
	Quizzes	Quizzes	1.2.4	Taught, Assessed
			1.2.5	Taught, Assessed
			1.2.7	Taught, Assessed
			3.2.3	Taught, Assessed
			4.2.1	Taught, Assessed
			4.2.2	Taught, Assessed
			4.2.3	Taught, Assessed
			4.2.5	Taught, Assessed
			4.2.6	Taught, Assessed
			4.2.7	Taught, Assessed
			4.2.8	Taught, Assessed
			4.2.10	Taught, Assessed
			5.2.6	Taught, Assessed
			7.2.1	Taught, Assessed
			7.2.2	Taught, Assessed
			7.2.6	Taught, Assessed
			7.2.7	Taught, Assessed

PROGRAMME DELIVERY MODE	ASSESSMENT TYPE	TITLE	COMPETENCY	TEACHING METHODS
			13.2.1	Taught, Assessed
			13.2.5	Taught, Assessed
			13.2.6	Taught, Assessed

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.

7.1. Schedule

PERIOD AND TOPIC	ACTIVITIES
1	Physical activity, sport and exercise. Benefits and risks of exercise and exercise testing. Pre-exercise evaluations for health and performance
2	General principles of exercise prescription and programming
3	Structuring exercise prescription and programming sessions
4	Exercise testing and measurement for flexibility and range of movement
5	Exercise prescription and programming for muscular fitness
6	Exercise prescription and programming for health-related muscular fitness
7	Exercise prescription and programming for performance related muscular fitness
8	Exercise prescription and programming for cardiorespiratory fitness
9	Exercise prescription and programming for health-related cardiorespiratory fitness
10	Exercise prescription and programming practical skill and safety
11	Exercise prescription and programming practical skill and safety
12	Exercise prescription and programming practical skill and safety

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

You need regular access to the resource(s) below. Many texts are available as ebooks through the [Library](#) at no additional cost.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Recommended	Baechle, T. Earle, R	2015	Essentials of Strength and Conditioning	4th edn	Human Kinetics

8.2. Specific requirements

This course includes an assessment of a professional competency task deemed necessary to meet the Exercise and Sports Science Australia (ESSA) Professional Standards. Therefore, your attendance and participation in practicals/laboratory's and tutorials is expected. Feedback will be provided to you during each of your classes and will provide you with support and guidance to become competent in the ESSA Professional Standards addressed in this course. For any work that is missed you will need to demonstrate to your course provider that you have covered the required material. This will usually take the form of a detailed summary and reflection of the directed study activities and practical skills for the missed class or placement.

9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is 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

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%; and
- (b) The course is graded using the Standard Grading scale

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 submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:

- (a) One day: deduct 5%;
- (b) Two days: deduct 10%;
- (c) Three days: deduct 20%;
- (d) Four days: deduct 40%;
- (e) Five days: deduct 60%;
- (f) Six days: deduct 80%;
- (g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:

- Less than 15 minutes: No penalty
- From 15 minutes to 30 minutes: 20% penalty
- More than 30 minutes: 100% penalty

10.4. 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>

10.5. 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.

10.6. General Enquiries

For course-specific questions, contact your teaching staff or Course Coordinator.

For other enquiries or to access support, please contact Student Central:

- [UniSC Student Central](#)
- [UniSC Adelaide Student Central](#)