



# Science

## EXERSCI 105 : Exercise Prescription (15 POINTS)

### Course Prescription

An introduction to the risks and benefits of exercise, exercise policy and safety, physical fitness testing, guidelines for exercise test administration, principles of exercise prescription, cardiorespiratory and neuromuscular training.

### Course Overview

What should my heart rate be when working out? How do you measure someone's fitness? How can exercise improve fitness? If you are asking yourself these types of questions then you will benefit from this course.

EXERSCI 105 is an elective course in Exercise Sciences and is appropriate for anyone undertaking a Bachelor of Science. The course is designed for anyone with an interest in exercise and physical activity. In this course, you will learn how to implement pre-exercise evaluation and screening processes, exercise assessment, and exercise prescription principles for the purposes of measuring a healthy person's exercise ability. The course starts from the basics and upon completion, students should be able to prescribe basic exercises to apparently healthy adults.

### Course Requirements

Restriction: SPORTSCI 105, 205

### Capabilities Developed in this Course

- Capability 1: Disciplinary Knowledge and Practice
- Capability 2: Critical Thinking
- Capability 3: Solution Seeking
- Capability 4: Communication and Engagement
- Capability 5: Independence and Integrity

Graduate Profile: [Bachelor of Science](#)

### Learning Outcomes

By the end of this course, students will be able to:

1. Interpret and describe guidelines surrounding pre-exercise screening, assessment, evaluation, and prescription. (Capability 1, 2 and 5)
2. Describe and explain methods to assess physical fitness status and exercise prescription guidelines (Capability 2, 4 and 5)
3. Demonstrate proficiency in the assessment and evaluation of physical activity readiness, cardiorespiratory fitness, and muscular fitness (Capability 1 and 5)
4. Prescribe the correct quality and quantity of exercise for components of physical fitness in apparently healthy adults (Capability 1 and 3)

### Assessments

Assessment Type	Percentage	Classification
Assignment	10%	Individual Coursework
Final Exam	50%	Individual Examination
Lab Report	15%	Individual Coursework
Quizzes	10%	Individual Coursework
Test	15%	Individual Coursework
5 types	100%	

Assessment Type	Learning Outcome Addressed			
	1	2	3	4
Assignment	✓	✓		
Final Exam	✓	✓	✓	✓
Lab Report	✓	✓	✓	✓
Quizzes	✓		✓	
Test	✓	✓	✓	✓

### Key Topics

This course is divided into four modules:

#### Module 1: Principles of Assessment and Prescription

- Evidence-Based Practice
- Pre-Participation Screening
- Principles of Fitness Assessment

**Module 2: Assessment and Prescription for Cardiorespiratory Fitness**

- Assessment of Cardiorespiratory Fitness
- Metabolic Calculations
- Cardiorespiratory Fitness Training
- Exercise and Weight Loss
- Endurance Exercise

**Module 3: Assessment and Prescription for Muscular Fitness**

- Assessment of Muscular Fitness (Strength/Power/Endurance)
- Resistance Training
- Functional Resistance Training
- Flexibility and Balance

**Module 4: Exercise Programming and Special Populations**

- Concurrent Exercise Training
- Long Term Programming
- Exercise Prescription in Older Adults and Children

**Special Requirements**

The lab component of the course involves taking measurements of individuals participating in exercise. These labs are approved by the University of Auckland Human Participants Ethics Committee on 02-07-2018 for three years, reference number 015169/2018. Since this is a science course, involvement in the labs is compulsory but students have the choice, in each lab, to act as either the participant or researcher. All students are encouraged to act as participants at some point during the course. Students who are approved to take this course remotely will have alternative arrangements made .

Laboratory work for this course is held in the Health and Rehabilitation Clinic (HRC). The HRC is a clinical training facility and patients may be using the equipment during the lab times. Students must behave in a way that will not offend or interfere with these activities. Proper exercise attire must be worn during labs.

**Workload Expectations**

This course is a standard 15 point course. In Summer School, students are expected to spend 20 hours per week involved in each 15 point course that they are enrolled in.

For this course, each week you can expect 4 hours of lectures, a 3 hour lab, 6 hours of reading and thinking about the content, and 6 hours of work on assignments and/or test preparation.

Any student of this course is encouraged to discuss any impairment related requirements privately with the course coordinator. Student Disability Services also provides support for students with a wide range of impairments (<http://disability.auckland.ac.nz>).

If your ability to participate in coursework is affected by illness or other personal circumstances, contact the teaching staff as soon as possible.

## Delivery Mode

### Campus Experience

Attendance is expected at scheduled activities including labs/tutorials to receive credit for components of the course.

Lectures will be available as recordings. Other learning activities including tutorials/labs will not be available as recordings.

The course will not include live online events.

Attendance on campus is required for the test/exam.

The activities for the course are scheduled as a standard weekly timetable.

## Learning Resources

### Canvas

This course is primarily lecture-based, however, recordings of the lectures and lecture slides will be posted to the Canvas page regularly. All labs require pre-lab reading which can be found on Canvas. You are expected to check Canvas regularly (multiple times per week) to check for messages and new material. Please also ensure that all your personal details (phone numbers, email addresses, and street address) are correct and kept up-to-date on Canvas and Student Services Online.

At times a 'flipped' teaching and learning style will be used. It is expected that you work through material BEFORE coming to the relevant class. The in-class content will hopefully develop understanding. Students will be advised when a 'flipped' class will be held to allow them to prepare beforehand.

### Textbook and Readings (optional)

This course emphasizes the use of evidence-based practice and therefore students are encouraged to read widely on the topics covered. Several textbooks (available in the library) are recommended but not compulsory.

#### Highly Recommended

ACSM's Guidelines for Exercise Testing and Prescription

#### Recommended

ACSM's Resources for the Personal Trainer

Advanced Fitness Assessment and Exercise Prescription

Essentials of Strength Training and Conditioning

## Student Feedback

During the course Class Representatives in each class can take feedback to the staff responsible for the course and staff-student consultative committees.

At the end of the course students will be invited to give feedback on the course and teaching through a tool called SET or Qualtrics. The lecturers and course co-ordinators will consider all feedback.

Your feedback helps to improve the course and its delivery for all students.

## Digital Resources

Course materials are made available in a learning and collaboration tool called Canvas which also includes reading lists and lecture recordings (where available).

Please remember that the recording of any class on a personal device requires the permission of the instructor.

## Academic Integrity

The University of Auckland will not tolerate cheating, or assisting others to cheat, and views cheating in coursework as a serious academic offence. The work that a student submits for grading must be the student's own work, reflecting their learning. Where work from other sources is used, it must be properly acknowledged and referenced. This requirement also applies to sources on the internet. A student's assessed work may be reviewed against online source material using computerised detection mechanisms.

## Copyright

The content and delivery of content in this course are protected by copyright. Material belonging to others may have been used in this course and copied by and solely for the educational purposes of the University under license.

You may copy the course content for the purposes of private study or research, but you may not upload onto any third party site, make a further copy or sell, alter or further reproduce or distribute any part of the course content to another person.

## Inclusive Learning

All students are asked to discuss any impairment related requirements privately, face to face and/or in written form with the course coordinator, lecturer or tutor.

Student Disability Services also provides support for students with a wide range of impairments, both visible and invisible, to succeed and excel at the University. For more information and contact details, please visit the [Student Disability Services' website](http://disability.auckland.ac.nz) <http://disability.auckland.ac.nz>

## Special Circumstances

If your ability to complete assessed coursework is affected by illness or other personal circumstances outside of your control, contact a member of teaching staff as soon as possible before the assessment is due.

If your personal circumstances significantly affect your performance, or preparation, for an exam or eligible written test, refer to the University's [aegrotat or compassionate consideration page](https://www.auckland.ac.nz/en/students/academic-information/exams-and-final-results/during-exams/aegrotat-and-compassionate-consideration.html) <https://www.auckland.ac.nz/en/students/academic-information/exams-and-final-results/during-exams/aegrotat-and-compassionate-consideration.html>.

This should be done as soon as possible and no later than seven days after the affected test or exam date.

## Learning Continuity

In the event of an unexpected disruption we undertake to maintain the continuity and standard of teaching and learning in all your courses throughout the year. If there are unexpected disruptions the University has contingency plans to ensure that access to your course continues and your assessment is fair, and not compromised. Some adjustments may need to be made in emergencies. You will be kept fully informed by your course co-ordinator, and if disruption occurs you should refer to the University Website for information about how to proceed.

The following conditions will apply under the different COVID-19 Alert levels.

Level 1: Delivery normally as specified in delivery mode.

Level 2: You will not be required to attend in person. All teaching and assessment will have a remote option. The following activities will also have an on-campus / in-person option: lectures, labs, tutorials, office hours.

Level 3 / 4: All teaching activities and assessments are delivered remotely

## Student Charter and Responsibilities

The Student Charter assumes and acknowledges that students are active participants in the learning process and that they have responsibilities to the institution and the international community of scholars. The University expects that students will act at all times in a way that demonstrates respect for the rights of other students and staff so that the learning environment is both safe and productive. For further information visit [Student Charter](https://www.auckland.ac.nz/en/students/forms-policies-and-guidelines/student-policies-and-guidelines/student-charter.html) <https://www.auckland.ac.nz/en/students/forms-policies-and-guidelines/student-policies-and-guidelines/student-charter.html>.

## Disclaimer

Elements of this outline may be subject to change. The latest information about the course will be available for enrolled students in Canvas.

In this course you may be asked to submit your coursework assessments digitally. The University reserves the right to conduct scheduled tests and examinations for this course online or through the use of computers or other electronic devices. Where tests or examinations are conducted online remote invigilation arrangements may be used. The final decision on the completion mode for a test or examination, and remote invigilation arrangements where applicable, will be advised to students at least 10 days prior to the scheduled date of the assessment, or in the case of an examination when the examination timetable is published.