

Unit Outline (Higher Education)

Institute / School: Institute of Health and Wellbeing

Unit Title: Exercise Prescription 2

Unit ID: EXSCI3172

Credit Points: 15.00

Prerequisite(s): (EXSCI2175)

Co-requisite(s): Nil

Exclusion(s): Nil

ASCED: 069903

Description of the Unit:

This unit provides the necessary advanced knowledge and skills to safely test and prescribe exercise for various pathological populations. Students will learn the pathophysiological processes underpinning common cardiovascular and neurological pathologies and their effect on exercise capacity. Students will be required to demonstrate proficiency in modifying testing protocols and exercise prescription where necessary to effectively and safely exercise pathological individuals.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience

Placement Component:

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

Course Level:

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory	■	■	■	■	■	■
Intermediate	■	■	■	■	■	■
Advanced	■	■	✓	■	■	■

Learning Outcomes:

Knowledge:

- K1.** Describe the physiological changes that occur throughout the lifespan and their effects on exercise capacity.
- K2.** Describe the anatomy and pathophysiological processes found within special populations such as cardiovascular disease, diabetes, asthma, and osteoarthritis.
- K3.** Describe the anatomical and physiological considerations for exercise special populations
- K4.** Describe how various exercise-induced physiological adaptations affect lifestyle-related disease risk factors.
- K5.** Describe the role of exercise in management of mental health conditions such as generalized anxiety and depression.
- K6.** Recognise the signs of excessive strain and discuss appropriate precautions and modifications to consider when exercising an individual.
- K7.** Define and appraise the relationship between energy balance, body mass, obesity and lifestyle-related diseases.
- K8.** Evaluate the need to adapt the styles and mode of delivery of written, oral and nonverbal communication to the needs of particular groups and individuals in a variety of settings.

Skills:

- S1.** Apply and interpret screening tools and identify risk factors for lifestyle-related diseases.
- S2.** Adopt, modify and interpret appropriate fitness for special groups with conditions such as cardiovascular disease, diabetes, osteoarthritis and asthma.
- S3.** Identify improper and unsafe exercises, and prescribe appropriate substitutions for these exercises.
- S4.** Use BMI, waist circumference, body composition estimates and other indices to determine an appropriate rate of loss of body mass or fat for a given individual.

Application of knowledge and skills:

- A1.** Assess and record the physical capacity of people with chronic and complex conditions.
- A2.** Measure and interpret heart rate, blood pressure and ratings of perceived exertion before, during and after submaximal fitness tests and exercise.
- A3.** Design and implement effective exercise prescription for special populations with chronic and complex conditions.
- A4.** Determine and justify appropriate application of risk stratification and exercise modification for people with specific chronic and complex conditions.

Unit Content:

Topics covered include: Exercise testing and prescription for special groups: Cardiovascular disease Diabetes Obesity Ageing Asthma Mental Health

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
S1, S2, S3, S4, A1, A2, A3, A4	Attendance and participation in laboratory sessions to complete formative assessments	90% attendance required to satisfy ongoing formative assessment	Satisfactory/unsatisfactory
K1, K2, K3, K4, K5, K6, K7, K8	Completion of online quizzes covering theoretical concepts.	Online Quizzes	15-20%
S1, S2, S3, S4, A1, A2, A3	Assessment of practical skills and application of knowledge	Oral/Practical Exam	30-40%
K1, K2, K3, K4, K5, K6, K7, K8, S1, S3, S4, A2, A3	Review of unit materials covered in weeks 1-12.	Invigilated Theory Exam	30-40%

Adopted Reference Style:

APA ()

Refer to the [library website](#) for more information

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