

Unit Outline (Higher Education)

Institute / School:	Institute of Health and Wellbeing
Unit Title:	Advanced Exercise Programming and Prescription
Unit ID:	EXSCI3176
Credit Points:	15.00
Prerequisite(s):	(EXSCI3172)
Co-requisite(s):	Nil
Exclusion(s):	Nil
ASCED:	069903

Description of the Unit:

This course will build upon students exercise prescription theoretical knowledge and practical skills. Whilst focussing primarily on a healthy population, this course lays the theoretical and practical basis of exercise within a rehabilitation setting. Advanced exercise prescription skills and knowledge will be taught in topic areas such as range of motion, integrated functioning, flexibility, neuromuscular control, corrective exercise programming and functional movement screening. Students will be engaged in practical laboratory experiences to enhance proficiency in testing and prescribing exercise in these functional areas. This course is designed for students with an interest in pursuing a career in allied health such as Exercise Physiology.

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

Work Experience:

No work experience

Placement Component: No

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.** Explore the procedures and protocols for testing a variety of physical capacities such as muscular strength, endurance and power, range of motion, open and closed kinetic chain exercises and neuromuscular control often used in exercise prescription.
- K2.** Investigate the most appropriate exercise and level of exercise to test, develop, enhance, maintain or restore the above listed physical capacities.
- K3.** Explain how exercises may be modified to alter the difficulty level.
- K4.** Analyse the concepts of physics and biomechanics that may be applied to develop progressions and allow modifications in the prescription of individual exercises.
- K5.** Understand the nature of the integrated functioning of the musculoskeletal and nervous systems.
- K6.** Explain the role exercise plays in the healing process.
- K7.** Explore the concepts of neuromuscular control and proprioception.
- K8.** Describe the essential elements that compose a thorough corrective exercise program.

Skills:

- S1.** Select, apply and effectively conduct the most appropriate testing procedure(s) to assess the various physical capacities outlined above.
- S2.** Prescribe exercises and demonstrate the ability to modify or progress an exercise to suit individual needs.
- S3.** Compare and acknowledge the different application(s) of therapeutic and conditioning exercises.
- S4.** Demonstrate awareness of the factors that need to be considered when prescribing exercise for children, adolescents, and the elderly.
- S5.** Conduct functional movement screening tests.
- S6.** Collate, analyse and present information on specific exercise topics.

Application of knowledge and skills:

- A1.** Demonstrate the ability to assess joint function and common deficits of the ankle, knee, hip, and shoulder.
- A2.** Develop and implement an effective exercise program for optimal function of the ankle, knee, hip, and shoulder.
- A3.** Demonstrate the ability to conduct functional movement screening tests and prescribe appropriate corrective exercise accordingly.
- A4.** Explain and demonstrate a range of exercises that can be used to develop, enhance, maintain, restore and evaluate a variety of physical capacities.

Unit Content:

Biomechanics and physics of exercise prescription
ROM definitions, determinants and prescription

Integrated functioning Stretching flexibility
 Neuromuscular control and proprioception
 Exercise and healing
 Soft tissue and immobilization
 Region-specific exercise prescription
 Ankle
 Knee
 Hip
 Shoulder
 Functional Movement Screening
 Principles Corrective exercise
 Functional & performance specific development
 Cardiovascular Exercise Prescription
 Integrated Program development

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3, K7, S2, S3, S5	Attendance and participation in laboratory sessions to develop competency in the conduct of specific practical skills.	At least 90% attendance and active participation in practical tasks to satisfy ongoing formative assessment of practical skills. Students must be able to participate in practical prescription and demonstration of class activities.	S/U
K2, K3, K5, K7, S2, S6, A2, A4	Group research and preparation of exercises	Oral/written presentation of exercises demonstrating enhancement of a selected element of exercise prescription.	20-40%
S1, S2, S3, S4, S5, S6, A1, A2, A3, A4	Learning and review of class practical skills.	Practical exam	25-45%
K1, K2, K3, K4, K5, K6, K7, K8	Review of theoretical materials, notes, handouts and presentation materials. All topics covered are examinable	Written exam	35-45%

Adopted Reference Style:

APA ()

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

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