



# Course Outline (Higher Education)

<b>School:</b>	School of Science, Psychology and Sport
<b>Course Title:</b>	ADVANCED EXERCISE PROGRAMMING AND PRESCRIPTION
<b>Course ID:</b>	EXSCI3176
<b>Credit Points:</b>	15.00
<b>Prerequisite(s):</b>	(EXSCI3172)
<b>Co-requisite(s):</b>	Nil
<b>Exclusion(s):</b>	Nil
<b>ASCED:</b>	069903

**Description of the Course :**

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, etc.)

**Work Experience:**

No work experience: Student is not undertaking work experience in industry.

**Placement Component:** No

**Supplementary Assessment:** Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

**Program Level:**

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory	■	■	■	■	■	■

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
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.

#### Course 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

### Values:

- V1.** Appreciate the individual nature of exercise prescription and be able to justify their personal exercise prescription philosophy in the context of client needs and best practice.
- V2.** Appreciate the knowledge and skills required for advanced exercise prescription for the general population as well as in a rehabilitative context.
- V3.** Appreciate the advanced exercise prescription modifications required for a diverse range of participants within varied settings.

### Graduate Attributes

The Federation University FedUni graduate attributes (GA) are entrenched in the Higher Education Graduate Attributes Policy (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor		Development and acquisition of GAs in the course			
		Learning Outcomes (KSA)	Code A. Direct B. Indirect N/A Not addressed	Assessment task (AT#)	Code A. Certain B. Likely C. Possible N/A Not likely
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K1-K8, S1, S4-S6, A1, A3, A4	A, A, A, A, A, A, A, A, A, B, A, A, A, A, A	AT1, AT2, AT3, AT4	A, A, A, A
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	K3, K5, K8, S1, S2, A2	A, A, A, A, A, A	AT2, AT3, AT4	A, A, A

Graduate attribute and descriptor		Development and acquisition of GAs in the course			
		Learning Outcomes (KSA)	Code A. Direct B. Indirect N/A Not addressed	Assessment task (AT#)	Code A. Certain B. Likely C. Possible N/A Not likely
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	S3	A	AT3	B
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	S6	A	AT3	B
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	K7, K8, S2	A, A, A	AT3, AT4	B, B

### Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-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-S6, A1-A4	Learning and review of class practical skills.	Practical exam	25-45%
K1-K8	Review of theoretical materials, notes, handouts and presentation materials. All topics covered are examinable	Written exam	35-45%

### Adopted Reference Style:

APA