

Unit Outline (Higher Education)

Institute / School: Institute of Health and Wellbeing

Unit Title: Exercise Prescription 1

Unit ID: EXSCI2175

Credit Points: 15.00

Prerequisite(s): (EXSCI1702 and EXSCI2171)

Co-requisite(s): Nil

Exclusion(s): Nil

ASCED: 069903

Description of the Unit:

This unit provides the necessary foundational knowledge and skills to safely test and prescribe exercise for a presumably healthy population. Students will learn the physiological rationale and appropriate prescriptive variables to safely and effectively develop the various health-related fitness components. Students will be required to demonstrate proficiency in testing various fitness components using standardized measures and be able to modify protocols where necessary.

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.** Explain the biomechanical concepts underpinning exercise prescription and progression.
- K2.** Describe the common tests used to measure physical capacities such as cardiorespiratory fitness, range of motion, balance and core stability.
- K3.** Describe programming variables including overload, frequency, duration and intensity related to training types such as endurance and resistance training and their recommended application to develop health-related benefits.
- K4.** Discuss the patterns of muscle action observed in normal gait patterns and the changes in these patterns that occur throughout the lifespan.
- K5.** Identify the muscles and bones involved in any prescribed exercise test or activity.
- K6.** Explain the maternal changes of pregnancy, the physiological training effects of exercise on the mother and foetus and exercise contraindication.
- K7.** Explain how physiological adaptations to various forms of exercise including resistance training and aerobic-based training may change throughout the lifespan.
- K8.** Appraise absolute and relative contraindications to fitness testing and/or participation in exercise, including termination criteria of commonly used fitness tests.

Skills:

- S1.** Administer, interpret and critically assess basic physiological tests of various exercise capacities including cardiorespiratory fitness, posture, balance, core stability and range of motion.
- S2.** Effectively prescribe exercises to enhance physical capacities such as cardiorespiratory fitness, range of motion, balance and core stability.
- S3.** Modify standard or adopt appropriate fitness tests for special groups such as children, older adults and pregnant women.
- S4.** Promote and prescribe safe and appropriate physical activity and training for special groups including children, adolescents and older adults.
- S5.** Analyse common exercise movements according to biomechanical principles and identify muscle groups involved in each.
- S6.** Demonstrate an ability to recognise when and where to refer a client for further professional advice.

Application of knowledge and skills:

- A1.** Apply and interpret appropriate pre-participation screening tools.
- A2.** Test various physical capacities of a variety of clients and accurately interpret the results.
- A3.** Effectively prescribe exercise for enhancement of specific physical capacities such as cardiorespiratory fitness, flexibility, balance, core stability and gait.

Unit Content:

Risk Stratification and exercise screening Exercise testing principles (reliability, validity, sensitivity); contra-indication; test termination Exercise testing and prescription of cardio-respiratory fitness Exercise testing and

prescription for ROM, flexibility & posture
 Exercise testing and prescription for enhancement of stability & balance
 Exercise testing and prescription for enhancement of core stability
 Exercise testing and prescription for enhancement of gait
 Exercise considerations for the female participant
 Exercise considerations for children & elderly

Learning Task and Assessment:

| Learning Outcomes Assessed | Assessment Tasks | Assessment Type | Weighting |
|--|---|------------------------------|-----------------------------|
| S1, S2, S3, S4, S5, S6, A1, A2 | Attendance and participation in laboratory sessions to complete formative assessments. A 90% attendance is required to conform with our accrediting body standards. | Ongoing formative assessment | Satisfactory/Unsatisfactory |
| K2, K3, S1, S2, S3, A1, A2, A3 | Development and planning of an exercise/training program for an apparently healthy adult. | Assignment | 30- 50% |
| K2, S1, S2, S3, A2 | Laboratory report | Assignment | 10-20% |
| K1, K2, K3, K4, K5, K6, K7, K8, S1, S2, S3, S4, S5, S6, A1, A2, A3 | Assessment of theoretical, practical skills and application of knowledge. | Oral/Practical Examination | 30-50% |

Adopted Reference Style:

APA ()

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

Fed Cite - [referencing tool](#)