

# REHA 3012 EXERCISE IN MUSCULO-SKELETAL REHABILITATION

**Credit Points** 10

**Legacy Code** 400902

**Coordinator** Paul Marshall ([https://directory.westernsydney.edu.au/search/name/Paul Marshall/](https://directory.westernsydney.edu.au/search/name/Paul%20Marshall/))

**Description** In 2017, this subject is replaced by 401144 - Exercise Prescription II. This subject focuses on the role of exercise in the functional rehabilitation of musculoskeletal injuries including work and sporting injuries. It covers injury and re-injury prevention strategies; mechanisms of injury; patho-physiology of injury and repair process; design and evaluation of rehabilitation exercise programs; how the exercise program functions in concert with other methods of injury treatment and management; important pharmacological, communication, psychosocial and cultural considerations; the role of the exercise physiologist in the rehabilitation team; the effects of nervous system disorders and injury on skeletal muscle control, injury and rehabilitation are also considered.

**School** Health Sciences

**Discipline** Rehabilitation Therapies, Not Elsewhere Classified.

**Student Contribution Band** HECS Band 2 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 3 subject

**Pre-requisite(s)** HLTH 2006

**Equivalent Subjects** REHA 3011 - Exercise in Musculoskeletal Injury Rehabilitation

## Restrictions

Students must be enrolled in 4658 - Bachelor of Health Science (Sport and Exercise Science).

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Describe the scope of practice of an accredited clinical exercise physiologist with respect to musculoskeletal injury rehabilitation.
2. State and utilise methods of reducing injury potential in a variety of sports and exercise programs.
3. Understand the causative mechanisms and pathophysiology of musculoskeletal injury and healing as related to each body region.
4. Develop an awareness of the fundamental approaches and complications associated with treatment of common musculoskeletal injuries, including pharmacological management.
5. Apply principles of functional assessment and exercise rehabilitation in the design and implementation of rehabilitation exercise programs for individuals with musculoskeletal injuries and chronic pain conditions.
6. Modify an exercise program within the context of the biopsychosocial model of rehabilitation.
7. Quantify self report scales for assessment of disability, pain, depression, anxiety, and kinesiophobia.

8. Utilise communication skills regarding exercise prescription technique for effective interpersonal relationships with clients, and other professionals involved in musculoskeletal injury rehabilitation.

## Subject Content

In the parts of this subject which cover injuries the following injuries will be covered

1. Acute and chronic responses to injury, repair and remodelling
  - haemostatic and Inflammatory responses
  - muscle, bone, ligament and tendon
  - affects of injury and Functional rehabilitation on The Biomechanical properties of muscle, bone, ligament and tendon
  - changes in kinaesthetic Sensitivity that accompany soft tissue injuries
2. Acute care for musculoskeletal injuries
3. Pharmacology of key medication for musculoskeletal injury and common coexisting conditions
4. Principles of functional assessment
  - medical clearances
  - common tests of Functional ability used in Screening for Musculoskeletal injury, their uses, strengths and limitations
5. Principles and stages of functional rehabilitation
6. Rehabilitation Techniques
  - Hydrotherapy
  - Therabands
  - Fitball
  - resistance
  - Endurance training
  - flexibility
  - Core stability
  - Progression and evaluation
7. Design and implementation of functional rehabilitation exercise programs for individuals with common musculoskeletal injuries
  - head and Neck
  - Upper limb
  - Lower limb
  - Torso and back
8. Functional exercise rehabilitation?fs relationship to other treatments.
9. Risks of injury associated with equipment and exercises used in functional rehabilitation of musculoskeletal injuries
  - The biomechanics
  - Minimising risk; Equipment and environment, The exercises and technique, Individual client factors
10. Sociocultural and heal

## Special Requirements

Legislative pre-requisites

Prior to enrolling in this subject, students must have:

- 1) submitted a Student Undertaking Form and have applied for a National Police Certificate;
- 2) submitted Working with Children Check Student Declaration;
- 3) possess a current WorkCover Authority approved First Aid Certificate.