



Module Definition Form (MDF)

Module code: MOD011107	Version: 1 Date Amended: 02/Jun/2025
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1. Module Title
Clinical Exercise Prescription

2a. Module Leader
Andi Seago

2b. School
Faculty of Health, Education and Social Care at ARU Peterborough

2c. Faculty
ARU Peterborough

3a. Level
6

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	None		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module focuses on the latest research and evidence-based practices related to designing personalised exercise prescription for individuals with specific medical conditions, including how to incorporate emerging technologies and personalised approaches to optimise treatment outcomes. It will provide an in-depth and comprehensive study into how physical activity and planned exercise improves health, and how they may be promoted

Throughout this module we will continue to discuss the prevalence, aetiology and pathophysiology of non-communicable diseases that we began at level 5, and investigate the literature and evidence base into exercise programming for the treatment, management and rehabilitation of these conditions. This will expand and develop your knowledge of multidisciplinary approaches to health and disease with both a theoretical and practical application to critically evaluate the role of physical activity. The role of exercise prescription will be analysed and discussed in detail to evaluate the effects of physical activity on positive psychological, physiological and metabolic adaptations – ultimately leading to you being able to design a research informed exercise prescription that is justified through its intended adaptations to support the management of disease and improve quality of life for these individuals.

This module develops key employability skills required within clinical exercise science, working with clinical populations, public health policy and further study, whilst the content will allow you to continue working towards a nationally recognised qualification, “Working with people with Long Term Conditions” award (Formally “Exercise Referral”), endorsed by CIMSPA

6b. Outline Content

Indicative content may include:

- **Emerging technologies in exercise monitoring:**
 - Wearable fitness trackers and their application in clinical settings
 - Real-time heart rate monitoring and data analysis
 - Motion analysis systems for movement assessment
- **Personalised exercise prescription:**
 - Explore exercise guideline for different populations.
 - Genetic testing and its implications for exercise programming
 - Individualised training zones based on physiological data
 - Utilising cognitive factors in exercise design
- **Specific populations and conditions:**
 - Exercise for chronic diseases like obesity, cardiovascular disease, diabetes, and musculoskeletal conditions
 - Exercise interventions for mental health conditions (depression, anxiety)
 - Considerations for older adults and individuals with disabilities
 - Benefits of and limitations to exercise in individuals who suffer from common medical conditions and diseases. Case studies may include cardiovascular disease, obstructive and restrictive respiratory disease, neurological conditions, cancer, diabetes, and obesity
- **Advanced exercise testing protocols:**
 - Functional fitness assessments
 - VO2 max testing using newer methodologies
 - Assessing neuromuscular function
- **Integrative approaches to exercise prescription:**
 - Combining exercise with nutrition and behavioural therapy
 - Telehealth and virtual exercise delivery
 - Mindfulness and stress management techniques within exercise programmes
 - The psychological and behavioural principles of the development of physical activity and exercise interventions

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

Accelerometers

Exercise testing lab equipment

Access to gym/community space

7. Learning Outcomes (threshold standards)

No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Critically analyse exercise guidelines for a pre-defined long term condition.
2	Knowledge and Understanding	Critically analyse the rehabilitation needs of an individual with a long term condition.
3	Intellectual, practical, affective and transferrable skills	Apply theoretical understanding and knowledge to safely progress exercise programmes.
4	Knowledge and Understanding	Critically evaluate the effectiveness of an exercise programme.
5	Intellectual, practical, affective and transferrable skills	Apply methodological understanding to the assessment of free-living physical activity.
6	Intellectual, practical, affective and transferrable skills	Apply critically evaluated public health knowledge to the development of physical activity promotion and sedentary behaviour reduction interventions.

8a. Module Occurrence to which this MDF Refers

Year	Occurrence	Period	Location	Mode of Delivery
2025/6	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	40	1-6	10 weeks x 4 hours of delivered content in lectures, seminars and lab based scenarios
Other teacher managed learning	28	1-6	8 hours of formative assessments and tutorials 20 hours of direc and canvas tasks
Student managed learning	232	1-6	Assessment prep and self directed study
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1,5,6	50 (%)	Fine Grade	30 (%)
Case study (2500 words)					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Practical	2,3,4	50 (%)	Fine Grade	30 (%)
Viva 20 minutes (2500 words equivalent)					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:

(a) achieve the qualifying mark for each element of fine graded assessment as specified above

(b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]