MODULE SPECIFICATION

Part 1: Information			
Module Title	Exercise and Biomechanics for Physiotherapy and Sport Rehabilitation		
Module Code	UZYSXW-30-1	Level	Level 4
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Health & Applied Sciences	Field	Allied Health Professions
Department	HAS Dept of Allied Health Professions		
Module type:	Standard		

Pre-requisites	None
Excluded Combinations	None
Co- requisites	None
Module Entry requirements	None

Part 2: Description

Educational Aims: See Learning Outcomes

Outline Syllabus: Exercise:

Types of exercise (for example, prevention, therapeutic, conditioning, social)

Biopsychosocial benefits of exercise for specific populations (for example, children, adults, older adults, elite athletes)

Goal setting, motivation, adherence

Principles of prescription (to include risk assessment and incident reporting) for individual and group exercise

Components of fitness (what is it, how is it assessed, exercises to improve):

Cardiovascular fitness
Balance and proprioception
Flexibility

Strength

Biomechanics:

Mechanics of movement to include:

Cardinal planes and axes
Torque
Levers
Stress/strain and soft tissue mechanics (for example, viscoelasticity)
Muscle range (for example, optimal length, active and passive tension)
Group action of muscles (for example, neutralisers, stabilisers)
Length-tension relationships

Movement analysis for functional and sporting activities:

Integration of the mechanical principles to analyse: gait, running, sit to stand, jumping, gripping, reaching, throwing
Identification of abnormal movement with subsequent exercise prescription
Use of biomechanical principles to justify progressions/regression of exercises prescribed

Teaching and Learning Methods: Up to 96 contact hours to include two 2 hour lectures and seminars/practicals over 24 weeks.

Teaching and learning will be shared with the level 1 BSc (Hons) Sport Rehabilitation students.

Scheduled learning will include online lectures, online seminars (where learning outcomes are theoretical), and practical classes and workshops. This accounts for approximately 96 hours.

Independent learning includes essential reading, case study preparation, assignment preparation and completion. Students will be provided with a module workbook to guide their independent learning. This accounts for approximately 204 hours.

Part 3: Assessment

Component A (controlled conditions): summative

Structured Oral Practical Exam (SOPE) at the end of semester 2.
This approach will enable assessment of systematic movement analysis and the application of this in selecting and teaching appropriate exercises. It will also allow assessment of the learning outcomes related to practical skills.

The SOPE will include questions to assess the students' movement analysis skills (based on video clips of movements used within the module) and require students to systematically analyse the movement, describe the dysfunction and prescribe justified exercises to target the dysfunction.

Component B:

2000 word case report at the end of semester 1.

A written case report will allow in depth assessment of a specific aspect of exercise prescription, and allow the assessment of technical writing in preparation for level 2.

Students will be assigned a case study relating to a specific aspect of fitness (e.g. cardiovascular, balance and proprioception, strength, flexibility) and will present a written report of an exercise regimen for a given patient/client. This will be based on a proforma provided and will include justification for the inclusion of each exercise using theory and relevant sources.

First Sit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Case report (2000 words)
Presentation - Component A	✓	50 %	Structured Oral Practical Exam - 45 minutes maximum
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Report - Component B		50 %	Case report (2000 words)
Presentation - Component A	✓	50 %	Structured Oral Practical Exam - 45 minutes maximum

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will achieve the following learning outcomes:

Module Learning Outcomes	Reference
Discuss the benefits of activity in the maintenance of health within a biopsychosocial model and state the recommended levels of activity to maintain health	MO1
Demonstrate skills in organising, delivering, managing and monitoring an exercise programme in healthy populations (for example, to strengthen, stretch, improve balance, and cardiovascular fitness)	MO2
Define and explain basic biomechanical principles	MO3
Analyse and discuss basic functional (and sporting) human movement using biomechanical principles	MO4
Identify and discuss variations from normal human movement using these biomechanical principles	MO5
Prescribe a justified exercise programme to address variations from normal human movement	MO6
Outline factors affecting motivation and adherence to adopting an exercise regimen and active lifestyle. Identify methods to increase motivation and adherence	MO7
Demonstrate an ability to ensure personal, peer and service user safety when instructing physical activities	MO8

Contact Hours

Independent Study Hours:	
Independent study/self-guided study	204
Total Independent Study Hours:	204
Scheduled Learning and Teaching Hours:	
Face-to-face learning	96

	Total Scheduled Learning and Teaching Hours:	96
	Hours to be allocated	300
	Allocated Hours	300
Reading List	*The reading list for this module can be accessed via the following link:* https://uwe.rl.talis.com/modules/uzysxw-30-1.html	

Part 5: Contributes Towards
This module contributes towards the following programmes of study: