# University of the West of Scotland

### **Module Descriptor**

#### Session: 2023/24

| Title of Module: Clinical Exercise Physiology |   |  |  |  |  |
|---|---|--|--|--|--|
| Code: SPOR10043                               | R10043SCQF Level: 10<br>(Scottish Credit<br>and<br>Qualifications<br>Framework)Credit Points:<br>10ECTS: 5<br>(European<br>Credit Transfer<br>Scheme) |  |  |  |  |
| School:                                       | School of Health and Life Sciences  |  |  |  |  |
| Module Co-ordinator:                          | Nick Sculthorpe   |  |  |  |  |

## Summary of Module

This module will advance understanding of the application of exercise physiology to clinical populations. The module has a specific focus on the dual role of exercise as both a method of assessment for prognosis, tracking changes in physical capacity due to adaptation or disease progression. Teaching on the module will include reviewing the underpinning epidemiology and pathophysiology of different conditions, analysing the underpinning physiology of different types of exercise testing, and the interpretation of exercise test data. The module will also explore the skills required to undertake assessments, and students will cover the main techniques associated with laboratory and field assessments of different populations.

This module will assist the student in the development of key 'I am UWS Graduate Attributes' to allow those that complete this module to be:

Universal:

- Critical Thinker
- Emotionally Intelligent
- Collaborative

Work Ready:

- Problem -solver
- Motivated
- Potential Leader

Successful:

- Innovative
- Resilient
- Transformational

| Module Delivery Method |         |                 |             |             |                        |  |
|------------------------|---------|-----------------|-------------|-------------|------------------------|--|
| Face-To-<br>Face       | Blended | Fully<br>Online | HybridC     | Hybrid<br>0 | Work-Based<br>Learning |  |
|                        |         |                 | $\boxtimes$ |             |                        |  |

## Campus(es) for Module Delivery

г

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)

| Paisley: | Ayr: | Dumfries: | Lanarkshire: | London: | Distance/Online<br>Learning: | Other:   |
|----------|------|-----------|--------------|---------|------------------------------|----------|
|          |      |           | $\boxtimes$  |         |                              | Add name |

| Term(s) for Module Delivery  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| (Provided viable student numbers permit).  |  |  |  |  |  |  |
| Term 1 Image: Market Mark |  |  |  |  |  |  |

| These<br>appro                             | Learning Outcomes: (maximum of 5 statements)<br>These should take cognisance of the SCQF level descriptors and be at the<br>appropriate level for the module.<br>At the end of this module the student will be able to: |   |  |  |  |
|--|---|---|--|--|--|
| L1   | Critically revie<br>pathophysiolo   | ew the limitations to exercise of a specific disease based on gy  |  |  |  |
| L2   | results to seled  | fied exercise testing protocols and critically interpret and apply the cted conditions, with specific reference to the role of exercise as ssment or treatment  |  |  |  |
| Emplo                                      | oyability Skills  | and Personal Development Planning (PDP) Skills  |  |  |  |
| SCQF                                       | Headings  | During completion of this module, there will be an opportunity to achieve core skills in:   |  |  |  |
| Understanding (K<br>and U) De<br>res<br>co |   | <ul><li>SCQF Level 10</li><li>Demonstrating a comprehensive knowledge of the physiological responses to exercise and predict the main effects of specific conditions on the exercise response.</li><li>Demonstrating an ability to critically analyse exercise data in reference to a specific condition.</li></ul> |  |  |  |
| Knowl                                      | ce: Applied<br>edge and<br>standing   | SCQF Level <b>10</b><br>Deploying and interpreting a range of both field and?laboratory<br>skills to evaluate the influence of exercise on the physiological<br>responses to exercise.  |  |  |  |

| Co-requisites  | Module Code:   | Module Title:                                      |  |  |
|--|--|--|--|--|
|  | Other:   |  |  |  |
|  | Module Code: Module Title:   |  |  |  |
| Pre-requisites:  | Before undertaking this module the student should have undertaken the following:   |  |  |  |
| Autonomy,<br>Accountability and<br>Working with others | SCQF Level <b>10</b><br>Exercising autonomy and initiative in tutorials & workshops but<br>also work as part of a team.  |  |  |  |
|  | at this level and adjust features to suit purpose.<br>Interpreting, use and evaluate a wide range of numerical and<br>graphical data to set and achieve goals/targets.   |  |  |  |
|  | Using a range of ICT applications to support and enhance work  |  |  |  |
| ICT and Numeracy<br>Skills                             | Presenting or conveying, formally and informally, information<br>about contemporary issues in talent development.  |  |  |  |
| Communication,   | SCQF Level 10  |  |  |  |
|  | Critically identifying, of complex problems ar   | defining, conceptualising and analysing ad issues. |  |  |
| SKIIIS   | Undertaking critical analysis, evaluation and synthesis of ideas, concepts, information and issues that are within the common understandings in the related disciplines. |  |  |  |
| Generic Cognitive<br>skills                            | SCQF Level 10  |  |  |  |
|  | Designing appropriate exercise taking into account the potential limitations imposed by specific conditions.   |  |  |  |

\*Indicates that module descriptor is not published.

#### Learning and Teaching

The teaching and learning approach will utilise a flexible, hybrid delivery. Synchronous sessions will focus on, practical skills development, data interpretation, problem-based learning sets, and informal discussion and debate. This will be supported via asynchronous activities and online materials, including recorded lectures via the virtual learning environment.

| Learning Activities<br>During completion of this module, the learning activities<br>undertaken to achieve the module learning outcomes<br>are stated below: | Student Learning Hours<br>(Normally totalling 200<br>hours):<br>(Note: Learning hours<br>include both contact hours<br>and hours spent on other<br>learning activities) |
|---|---|
|---|---|

| Laboratory/Practical Demonstration/Workshop | 12              |
|---|-----------------|
| Asynchronous Class Activity                 | 6               |
| Independent Study                           | 82              |
|   | 100 Hours Total |

#### \*\*Indicative Resources: (eg. Core text, journals, internet access)

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

The most recent versions of:

LeMura, Linda M., and Serge P. Von Duvillard, eds. Clinical exercise physiology: application and physiological principles. Lippincott Williams & Wilkins.

Skinner, James S., ed. Exercise testing and exercise prescription for special cases: theoretical basis and clinical application. Lippincott Williams & Wilkins.

Ward S, and Palange, P (Eds) Clinical Exercise Testing. European Respiratory Society. Ehrman, Jonathan K., et al. Clinical exercise physiology. Human Kinetics.

American College of Sports Medicine. ACSM's Clinical Exercise Physiology. Lippincott Williams & Wilkins.

(\*\*N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk\*) to wait until the start of session for confirmation of the most up-to-date material)

#### Attendance and Engagement Requirements

In line with the <u>Student Attendance and Engagement Procedure</u>: Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

## Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: <u>UWS Equality, Diversity and Human Rights Code.</u>

In line with current legislation (Equality Act, 2010) and the UWS Equality, Diversity, and Human Rights Code, our modules are accessible and inclusive, with reasonable adjustment for different needs where appropriate. Module materials comply with University guidance on inclusive learning and teaching, and specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations. Where modules require practical learning or assessment, alternative formats and/or roles will be provided for students with physical disabilities which impact participation.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

#### **Supplemental Information**

| Divisional Programme<br>Board     | Sport, Exercise and Health |  |
|-----------------------------------|----------------------------|--|
| Assessment Results<br>(Pass/Fail) | Yes □No ⊠                  |  |
| School Assessment<br>Board        | Sport, Exercise and Health |  |
| Moderator                         | Mark Sanderson             |  |
| External Examiner                 | A Tocknell                 |  |
| Accreditation Details             | n/a                        |  |
| Changes/Version<br>Number         | 1.01                       |  |

#### Assessment: (also refer to Assessment Outcomes Grids below)

Assessment 1 – Class Test (practical)

(N.B. (i) **Assessment Outcomes Grids** for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed.

(ii) An **indicative schedule** listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

# Assessment Outcome Grids

| Component 1                      |                         |                         |  |                                 |  |  |
|----------------------------------|-------------------------|-------------------------|--|---------------------------------|--|--|
| Assessment Type<br>(Footnote B.) | Learning Outcome<br>(1) | Learning Outcome<br>(2) | Weighting (%)<br>of<br>Assessment<br>Element | Timetable<br>d Contact<br>Hours |  |  |
| Class Test (practical)           | ~                       | $\checkmark$            | 100  | 0                               |  |  |
|                                  | 100%                    | 0 hours                 |  |                                 |  |  |