

Liverpool John Moores University

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Title: Physiology 1
Status: Definitive
Code: **4504SPOSCI** (129563)
Version Start Date: 01-08-2021

Owning School/Faculty: Sport and Exercise Sciences
Teaching School/Faculty: Portobello Institute

| Team | Leader |
|----------------|--------|
| Ceriann Magill | Y |

Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 42
Total Learning Hours: 200 **Private Study:** 158

Delivery Options

Course typically offered: Runs Twice - S1 & S2

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 20 |
| Practical | 20 |

Grading Basis: 40 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|--------------|-------------------|---|---------------|---------------|
| Presentation | AS1 | The aim of the presentation is to demonstrate a needs analysis and recommended training programme to develop a physiological parameter (aerobic fitness, strength, power etc.) as part long-term PE programme | 50 | |
| Exam | AS2 | The exam will cover all content delivered in the module. This will be in the form of a written 2-hour exam. You will be given details of the types of questions the exam will cover in lectures. For example, some short response | 50 | 2 |

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|----------|-------------------|------------------------------|---------------|---------------|
| | | answers and longer questions | | |

Aims

The aim of this module is for individuals to develop an understanding of the physiological developments, principles and energy systems required in relation to practical performance to support physical education. Individuals will also develop an awareness of the different stages of physical development through infancy, childhood, and adolescence. An understanding of theoretical knowledge and application will support the ability of individuals to devise and deliver appropriate practical sessions.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate knowledge of exercise and physiology principles that support practical learning experiences and development.
- 2 Understand the relationship between physiology and physical performance during infancy, childhood, and adolescence.
- 3 Deliver practical learning activities that include exercise physiology principles and development, relevant to age and the physical education curriculum.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

| | | | |
|--------------------|---|---|---|
| Group Presentation | 1 | 2 | 3 |
| 2HR EXAM | 1 | 2 | 3 |

Outline Syllabus

An introduction of exercise physiology including energy systems to support the development of learning throughout physical activity and physical education.

An introduction to motor development and physiological concepts during infancy, childhood, and adolescence.

An introduction to the physiological response to exercise

An introduction to the physiology of health and disease.

Practical sessions relevant to age and the physical education curriculum.

Learning Activities

The module content will be delivered through lectures and practical activities. Theoretical and practical concepts and principles will be introduced and developed through a combination of lectures, seminars, and practical learning activities. Opportunities will be available, where appropriate, for individual tutorials. Online and in person lectures will be scheduled throughout the semester.

Students will also be involved in a range of directed tasks which will be completed as independent study, including but not limited to planning and using individual and group discussions as an aid to learning and presenting information in a variety of ways.

Students will be required to complete background reading and preparations before lecture and workshop sessions, in order to aid their contribution to discussions and debates from an informed point of view

Practical teaching of peers and experience in a range of practical activities will be delivered through practical tutorials. Study skills techniques including note-taking, active reading, planning for an assignment and information searches will be integrated through guided learning activities.

Notes

This module will be delivered in semester 1. The module will provide students with a strong theoretical foundation in physiology related to physical activity and health. Students will gain an understanding of basic scientific and physiological concepts through guided learning in lectures. Students will have the opportunity to explore how general physiological knowledge can be applied to specific practical scenarios relevant to physical education lesson planning, delivery and assessment. Students will explore how parameters of physiological function such as aerobic fitness, strength and power can be developed for age-appropriate cohorts. Students will gain understanding and awareness of the safety considerations for developing and delivering physical education lessons that reflect a desired physiological outcome. In addition to theoretical understanding, students will have the opportunity to learn practical skills related to physiological testing.