MODULE SPECIFICATION TEMPLATE

**SECTION 1: MODULE SPECIFICATIONS**

1. **Title of the module**

Applied Sport and Exercise Physiology (SS534)

1. **School or partner institution which will be responsible for management of the module**

School of Sport and Exercise Sciences

1. **Start date of the module**

September 2008, module specification updated December 2014

1. **The number of students expected to take the module**

100

1. **Modules to be withdrawn on the introduction of this proposed module and consultation with other relevant Schools and Faculties regarding the withdrawal**

NONE

1. **The level of the module (e.g. Certificate [C], Intermediate [I], Honours [H] or Postgraduate [M])**

I

1. **The number of credits and the ECTS value which the module represents**

30 *(ECTS 15)*

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn and Spring

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

BSc Sport and Exercise Science

BSc Sport and Exercise for Health

MSci Applied Sport and Exercise Science (to be validated Spring/Summer 2015)

1. **The intended subject specific learning outcomes**

On completion of this module, students will be able to:

1. Demonstrate a detailed understanding of physiological systems relevant to exercise - muscle, cardiovascular, thermoregulation, respiratory;
2. Demonstrate a detailed understanding of the regulation, adjustment and integration of specific physiological systems to the challenge of exercise;
3. Discuss the adaptation of specific physiological systems to training;
4. Demonstrate competence in a range of physiology practicals and defined set of experimental and statistical techniques.
5. **The intended generic learning outcomes**
6. Communication and presentation skills - via the use of student lead practicals and presentations on a variety of subject specific material with both individual and group settings used;
7. Numeracy & Information Technology – evidenced via working with formulae necessary to identify work rates, training zones, and for the study of parameters of human physiological function & through the preparation for presentations (including importing of graphics, word processing, internet searches);
8. Interactive group skills – evidenced through conducting student lead presentations and tasks as well as through undertaking group practical sessions;
9. Problem solving – achieved through the prescription of correct training loads and workloads for sport performers that students may deal with;
10. Ability to self-appraise and reflect on practice – evidenced within the evaluation section of the lab report coursework assignment;
11. Ability to plan and manage learning - through completing the extra self-directed study necessary to successfully complete the required assignments and tasks set during this module.
12. **A synopsis of the curriculum**

Indicative content includes:

Energy metabolism during exercise

Oxygen uptake during exercise and recovery

Control of ventilation during exercise and rest

The role of lactate during exercise including the lactate and ventilatory thresholds

Motor unit recruitment

Physiology of strength and anaerobic power

Metabolic and Neurological Mechanisms of Fatigue

Exercise at altitude

1. **Indicative Reading List**

McArdle, W. D., Katch, F.I. & Katch, V.L. (2010). Exercise Physiology: Energy, Nutrition, and Human Performance. 7th edn. Balitmore, USA:Lippincott, Williams and Wilkins.

Fallowfield, J.L., Hale, B.J. & Wilkinson, D.M. (2005). Using statistics in sport and exercise science research. Chichester: Lotus Publishing.

Gore, C. (2000). Physiological Tests for Elite Athletes. Illinois: Human Kinetics.

Thomas, J.R. & Nelson, J.K. (2005). Research Methods in Physical Activity. (5th Ed.) Champaign, Illinois: Human Kinetics.

Winter, E.M., Jones, A.M., Davison, R.C., Bromley, P.D., & Mercer, T.H. (2007). Sport & Exercise Physiology Testing Guidelines (BASES) Volume One: Sport Testing. Oxon: Routledge.

1. **Learning and Teaching Methods, including the nature and number of contact hours and the total study hours which will be expected of students, and how these relate to achievement of the intended module learning outcomes**

Total hours for the module will be 300. This will include a 1 hour Lecture per week (20 weeks) and a 2 hour bi-weekly laboratory practical session. These contact hours will total 40 in which the intended learning outcomes will be covered. Theoretical considerations of a number of common assessment methods in exercise physiology are discussed with the practical application of these methods being used to provide experiential learning. An optional tutorial session will also be made available for 1 hour per week to allow students to discuss/receive further guidance any topic related to the course and its content. The remainder will be devoted to private study focused on wider reading to develop material received in lectures, preparation for future sessions and work towards assessment by coursework.

1. **Assessment methods and how these relate to testing achievement of the intended module learning outcomes**

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| --- | --- | --- | --- |
| Assessment Type | Weighting | Qual Mark | Learning Outcomes Assessed |
| Coursework (Lab Report) | 40% | 40% | ILO’s: 11.1, 11.2, 11.3, 11.4  GLO’s: 12.2, 12.4, 12.6 |
| Coursework (Practical assessment) | 10% | 40% | ILO’s: 11.4  GLO’s: 12.1, 12.2, 12.3, 12.4, 12.5, 12.6 |
| Exam (2 hour written) | 50% | 40% | ILO’s: 11.1, 11.2, 11.3  GLO’s: 12.4, 12.5 |

1. **Implications for learning resources, including staff, library, IT and space**

The module will be convened by an existing member of the SSES. Library and IT resources will be provided by utilising existing provision with the view to further expansion as required. It is expected that physical teaching space will be available including the usage of a lecture theatre and an exercise-testing laboratory with necessary equipment; for example exercise testing cycle ergometers, treadmill, gas analyser, lactate analyser.

1. The School recognises and has embedded the expectations of current disability equality legislation, and supports students with a declared disability or special educational need in its teaching. Within this module we will make reasonable adjustments wherever necessary, including additional or substitute materials, teaching modes or assessment methods for students who have declared and discussed their learning support needs. Arrangements for students with declared disabilities will be made on an individual basis, in consultation with the University’s disability/dyslexia support service, and specialist support will be provided where needed.
2. **Campus(es) where module will be delivered:**

MEDWAY

1. Partner College/Validated Institution:
2. University School responsible for the programme:

**SECTION 2: MODULE IS PART OF A PROGRAMME OF STUDY IN A UNIVERSITY SCHOOL**

**Statement by the School Director of Learning and Teaching/School Director of Graduate Studies (as appropriate):** "I confirm I have been consulted on the above module proposal and have given advice on the correct procedures and required content of module proposals"

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| ................................................................  Director of Learning and Teaching/Director of Graduate Studies (delete as applicable)  …………………………………………………  Print Name | ..............................................  Date |

**Statement by the Head of School:** "I confirm that the School has approved the introduction of the module and, where the module is proposed by School staff, will be responsible for its resourcing"

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| .................................................................  Head of School  …………………………………………………….  Print Name | ..............................................  Date |

**SECTION 3: MODULE IS PART OF A PROGRAMME IN A PARTNER COLLEGE OR VALIDATED INSTITUTION**

(Where the module is proposed by a Partner College/Validated Institution)

**Statement by the Nominated Officer of the College/Validated Institution** *(delete as applicable)***:** "I confirm that the College/Validated Institution*(delete as applicable)* has approved the introduction of the module and will be responsible for its resourcing"

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| .................................................................  Nominated Responsible Officer of Partner College/Validated Institution  ………………………………………………….  Print Name  …………………………………………………..  Post | ..............................................  Date |

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Partner College/Validated Institution

Module Specification Template  
Last updated July 2014