# School of Sport, Exercise & Rehabilitation Sciences 2020-21 Academic Year

Module Availability for

Incoming International Exchange Students

**IMPORTANT INFORMATION: PLEASE READ CAREFULLY**

Module availability refers to the period of time an exchange student is with us:

* “Semester 1” (September through January) only\*
* “Semester 2” (January through June) only
* “Full Year” (September to June)

*(\*some modules have alternative assessments for these students - which may mean a number of exams & coursework before Christmas, so please be aware that there may be assessment bunching at this time)*

Please read through the availability of modules carefully before choosing your options.

Some modules may require previous learning in an area at your home institution.

***Important Notes:***

* Module title, content, assessment, delivery & staffing may be subject to change a part of ongoing Quality Assurance processes
* Timetables are not confirmed until the start of term and may be subject to change due to unforeseen circumstances.
* Exchange students may be limited within certain modules through a numbers capping process.
* Students who attend in Semester 1 (September to January) may need to undertake slightly different assessments before they leave for Christmas if a final exam is normally stipulated. This will mean additional assessment for those modules.
* Students attending in Semester 2 (Spring term - January to June) are expected to attend the summer exams in June).
* Those attending the Full Year are expected to be at University from September to June. Absences must be confirmed with the UoB Study Abroad Office.
* It is not possible to resit assessments in Year 3 modules.
* Resit assessments for Year 1 & 2 modules normally take place at the end of August.
* Whilst we attempt to keep this document as up to date as possible, please check the date on the footer & send any queries to Carol Barry-Southwick [( sportx-ug3@contacts.bham.ac.uk](mailto:(%20sportx-ug3@contacts.bham.ac.uk)) or Valerie Queeley ([sportx-ug2@contacts.bham.ac.uk](mailto:sportx-ug2@contacts.bham.ac.uk)) in School of Sport, Exercise and Rehabilitation Sciences.

# Year 1 Modules:

**Semester 1 Modules**

**Functional Anatomy - 32457 (LC) Sem 1 - 20 credits**

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| Module Leader: Dr Craig McAllister | Lecture Times: (TBC) |
| Module Description:  This module provides a comprehensive course in functional anatomy including lectures on the central nervous system and musculoskeletal anatomy and basic biomechanical principles. Small-group practical sessions with the support of PG Physiotherapy students will apply the lecture knowledge within a range of sport and exercise situations. The regular provision of homework sheets in conjunction with online resources will be used to guide independent study. Two separate laboratory classes will allow students to develop practical skills and data analysis techniques. This module provides the backbone of knowledge for advanced study in modules related to human movement topics in subsequent years. | |
| Module Assessment:  Laboratory Assessment (20%)  Class Test (65%)  Completion of in class worksheets in practical classes with compulsory attendance (15%) | |

**Human Physiology and Exercise - 32468 (LC) Sem 1 - 20 credits**

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| Module Leader: Dr Rebekah Lucas | Lecture Times: (TBC) |
| Module Description:  An introductory course of lectures in human physiology covering the functions of the nervous, cardiovascular and respiratory systems, the kidney, fluid balance and thermoregulation. Aims: To provide a course of study in human physiology, and introduce students on the principles of physiological regulation as this applies in healthy resting conditions, exercise and disease. This module provides the backbone of knowledge for advanced study in exercise and health physiology and in specific physiological systems in subsequent years. | |
| Module Assessment:  Class Test (20%)  Laboratory assessment (30%)  Examination (50%) | |

**Semester 2 Modules**

**Sport, Exercise and Health Psychology - 32475 (LC) Sem 2 - 20 credits**

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| Module Leader: Dr Sally Fenton | Lecture Times: (TBC) |
| Module Description:  This module will explore the individual and social environmental factors that underlie participation and performance in physical activity contexts. Specifically, it will cover: psychological skills which are fundamental in sport and exercise settings, including theories of anxiety, and its effects on performance regulation; key theories used to enhance performance and physical activity participation in sport and exercise settings; the role of physical activity and exercise engagement for improving psychological health and well-being; and factors which are central to promoting physical activity and exercise in different groups | |
| Module Assessment:  Case Study (20%)  Lab assessment (20%)  Exam (60%) | |

**Movement and Learning - 32452 (LC) Sem 2 - 20 credits**

**(Cannot be taken with Functional Anatomy)**

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| Module Leader: Dr Matt Bridge | Lecture Times: (TBC) |
| Module Description:  In this module students will be introduced to movement and learning as it relates to sport coaching and physical education. The module will also provide students with a broad knowledge and understanding of human anatomy as it relates to movement. Alongside this, it will consider how movement is created and controlled through the main theories of motor control and learning. Students will be introduced the use of movement analysis in coaching and physical education and some of the tools and techniques to analyse movement will be introduced. Students will be required to translate the theoretical content into practical advice for coaches and PE teachers | |
| Module Assessment:  Class Test : Class Test (50%) Online Tasks : Coursework (15%) Analysis of a Movement : Coursework (35%) | |

**Exercise Biochemistry - 32455 (LC) Sem 2 - 20 credits**

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| Module Leader: Dr Martin Whitham | Lecture Times: (TBC) |
| Module Description:  This module will provide a comprehensive introduction to biochemistry principles in relation to physical activity, exercise and sport performance.  Specifically, this module covers: the structure and function of important biomolecules including carbohydrates, fats, proteins and nucleic acids; the structure and function of organelles; the biochemical characteristics of muscle fibres; the structure and function of muscle fibres; membrane transport; proteins as enzymes, receptors, antibodies; major pathways of energy metabolism and how these are regulated; the mobilisation and utilisation of fuels for exercise and the hormonal responses to exercise; examples of important techniques in biochemistry | |
| Module Assessment:  Laboratory assessment (20%)  Written assessment (20%)  Examination (60%) | |

**Introduction to Science Communication - 34036 (LC) Sem 2 - 20 credits**

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| Module Leader: Dr Vikki Burns | Lecture Times: (TBC) |
| Module Description:  This module will support students to develop their skills in science communication, through an immersion in the school research environment. Students will hear presentations from research experts in the School, and how our work connects to global challenges, as well as exploring specific research areas with their personal tutors. They will produce written and oral pieces, based on these experiences, including writing in exam conditions. In addition, they will be examined on the content of the research presentations. To support their coursework, they will critically examine existing examples of effective and less effective written and oral practice, and use this insight to develop their own skills. The module includes experience in self- and peer-assessment, responding to feedback, plagiarism, and referencing. Students will be required to work in groups, and will receive training in group work skills. | |
| Module Assessment:  Group recorded presentation (30%)  Individual short essay (500 words; 40%)  Examination (1 hour; 30%) | |

# Year 2 Modules:

**Semester 1 Modules**

**Applied Exercise Physiology - TBC (LI) Sem 1 - 20 credits**

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| Module Leader: Dr Sam Lucas | Lecture Times: (TBC) |
| Module Description:  This module will study physiological function during acute exercise stress - from the level of the cell to the whole body - with some consideration for the influence of different intensities, durations and modes of exercise upon physiological function. We will also study the physiological response to repeated exercise training sessions, so as to characterise the training adaptations to different forms of exercise (e.g. aerobic, anaerobic, strength). This will also involve us briefly considering exercise prescription guidelines and the structure of training programs. The implications and effects of exercise in adverse environments (e.g., heat and hypoxia) will also be examined, along with responses and considerations for specific populations (e.g. elderly, spinal cord injured, female athletes). | |
| Module Assessment:  Laboratory Class Report (40%)  Unseen examination (60%) | |

**Exercise Metabolism - 17172 (LI) Sem 1 - 20 credits**

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| Module Leader: Dr Andy Blannin | Lecture Times: (TBC) |
| Module Description:  This module examines the metabolic events that occur during and in response to exercise, from the whole body to the molecular level. You will learn the mechanisms that activate fuel mobilisation, transport and oxidation during exercise. You will discover the metabolic interactions of different organs and the mechanisms for the response to exercise and adaptations to exercise training. You will also explore the health benefits of regular activity and the underlying mechanisms. | |
| Module Assessment:  Critical Evaluation (40%)  Exam (60%) | |

**Control of Human Movement - 28749 (LI) Sem 1 - 20 credits**

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| Module Leader: Dr Raymond Reynolds | Lecture Times: (TBC) |
| Module Description:  The module will cover brain structure and function - including neural pathways - that control voluntary movement, posture, locomotion and sensation. The course will also introduce aspects of the psychology of sensation-action coupling and motor control. Applications to pathology and sport will be covered. | |
| Module Assessment:  Laboratory Class Report (30%)  Unseen examination – 2 hours (70%) | |

**Sport Development - 23864 (LI) Sem 1 - 20 credits**

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| Module Leader: Dr Shushu Chen | Lecture Times: (TBC) |
| Module Description:  The module focuses upon the sport development industry and the provision of opportunities, processes, systems and structures that enable and encourage people to take part in sport for recreation or to improve their performance, or to achieve wider social outcomes. It will develop students’ knowledge and understanding of youth sport development, community sports development (social inclusion and health), mass participation and elite sport development and sporting events. By the end of the module students should occupy a sound understanding of both the national and international processes at work within sport development, as well as develop a critical knowledge of the various issues involved in both the development-of-sport, and sport-for- development. | |
| Module Assessment:  Essay (50%)  Exam (50%) | |

**Semester 2 Modules**

**Innovation and Professional Practice - 23862 (LI) Sem 2 - 20 credits**

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| Module Leader: TBC | Lecture Times: (TBC) |
| Module Description:  The module adopts a model-based approach to sports instruction. Drawing from theories of learning, students will be encouraged to consider critically a range of instructional models (e.g. TGFU, Sport Education) and how these might be applied. A model based approach offers a framework within which to consider pedagogical approaches to sport, and students will be expected to identify, plan, adapt and apply teaching/coaching models to a variety of sporting contexts. | |
| Module Assessment:  Essay (70%)  MCQ (30%) | |

**Sport Nutrition - 29267 (LI) Sem 2 - 20 credits**

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| Module Leader: Dr Gareth Wallis | Lecture Times: (TBC) |
| Module Description:  This module, Sports Nutrition, is concerned with the study and practice of nutrition and diet as it relates to athletic performance. The module covers the key principles of sports nutrition: carbohydrates for training and competition, fluid and electrolyte needs, dietary protein for athletes, dietary fat and performance, micronutrients and supplements. A particular focus is given to the science behind nutritional recommendations for athletes, as a good scientific understanding is critical to be able to carefully interpret new advances in Sports Nutrition and offer evidence-based advice to sports performers. A further focus is given to the communication of sports nutrition science, as effective and accurate scientific communication is key to ensuring athletes and the wider public receive and can understand credible information. | |
| Module Assessment:  Report (40%)  Exam (60%) | |

**Data science and statistical analyses- 34035 (LI) Sem 2 - 10 credits**

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| Module Leader: Sang-Hoon Yeo | Lecture Times: (TBC) |
| Module Description:  This module builds from the first semester Developing as a Researcher module. It introduces the key principles and approaches to data science and statistical analysis. It will cover data management, presenting data, choosing and performing analytic tests. | |
| Module Assessment:  Research hours (5%)  Attendance/participation in practical classes (10%)  Computer-based exam (85%) | |

**Sport and Performance Psychology - 35289 (LI) Sem 2 - 20 credits**

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| Module Leaders: Chris Ring & Sarah Williams | Lecture Times: (TBC) |
| Module Description:  This module examines key topics in the psychology of sport and performance. It includes relevant theories, evidence and interventions designed to understand how athletes learn, optimize and robustify their performance, especially under pressure to perform, as well as how performance can break down. The theories could include anxiety theory, processing efficiency theory, reinvestment theory, theory of challenge and threat, social interdependence theory, neural efficiency theory, constrained action and self-invoking trigger theories of attentional focus, perceptual and kinematic/postural theories of gaze control. The interventions to protect against performance failure under pressure could include: implicit learning, quiet eye training, neurofeedback training, imagery training, goal setting training, self-regulation training, and self-talk training. | |
| Module Assessment:  Individual infographic (50%)  Group report (50%): 1500 words | |

# Year 3 Modules:

Within each Group of modules below modules are normally timetabled at the same time, so you will only be able to choose ONE from any Group.

| TERM 1 | TERM 1 | TERM 2 | TERM 2 |
| --- | --- | --- | --- |
| Group A | Group B | Group C | Group D |
| Metabolic Perspectives in Exercise and Nutrition | Performing in Extreme Environments | Athletic Training and Conditioning | Exercise Prescription in Health and Disease |
| Analysis of Motor Performance (either A or B) | Analysis of Motor Performance (either A or B) | Clinical Neuroscience and Rehabilitation (either C or D) | Clinical Neuroscience and Rehabilitation (either C or D) |
| Moral Behaviour and Doping in Sport and Exercise | Promoting Physical Activity for Health and Well-being | Sport and Mental Health  (either C or D) | Sport and Mental Health (either C or D) |
|  |  | Sociology of Sport: Participation and Performance | Contemporary Issues in PE |

**Enrollment in advanced level modules typically requires you to have a specific level of background knowledge in the subject area.**

**You will need to demonstrate that you have taken the relevant equivalent modules at your home institution in order to be enrolled. We will review your home institution transcript before registering you for your chosen modules.**

**Semester 1 Modules**

**Moral Behaviour and Doping in Sport & Exercise - 35280 (LH) Sem 1 - 20 credits**

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| Module Leaders: Ian Boardley & Maria Kavussanu | Lecture Times: (TBC) |
| Module Description:  This module will examine moral behaviour (i.e., a collective term representing actions that have either positive or negative repercussions for others) and doping (i.e., use of illicit image and performance enhancing substances and methods) in sport and exercise. We will consider individual difference and social-environmental factors that may lead athletes to act in a prosocial or antisocial manner when they take part in sport, as well as the consequences of such actions for the recipient. With respect to doping, psychological predictors of doping in sport and exercise will be discussed including aesthetic (i.e., body image) and performance (i.e., strength, power, and endurance) motives. Relevant contemporary theory and research will be discussed, and interventions aimed at promoting prosocial and reducing antisocial behaviour (including doping) will be critically evaluated. In sum, this module will integrate theory and evidence from a range of relevant disciplines to develop students’ knowledge and understanding on key modern-day issues relevant to moral behaviour and doping in physical activity contexts. | |
| Module Assessment:  Assessments: A1 Poster (30%)  2-hour unseen examination (70%) | |

**Metabolic Perspectives in Exercise and Nutrition - 35279 (LH) Sem 1 - 20 credits**

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| Module Leader: Leigh Breen | Lecture Times: (TBC) |
| Module Description:  This module will present current, cutting edge research to offer students the opportunity to explore metabolic perspectives in exercise and nutrition.  Students will engage with research studies across a broad range of topics to understand how exercise and nutrition can impact upon metabolic aspects of health and performance.  Specifically, topics will include: exercise performance and adaptation, ageing, obesity, cardiovascular and brain health.  Learning and development will be supplemented with snapshots of research, where staff will present details of their own research studies, to explore elements of study design, data analysis and conclusion. | |
| Module Assessment:  Data analysis & Poster (40%)  Written seen examination 2 hours (60%) | |

**Analysis of Motor Performance - 35271 (LH) Sem 1 - 20 credits**

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| Module Leaders: François-Xavier Li &  Matt Bridge | Lecture Times: (TBC) |
| Module Description:  This module provides a comprehensive course in analysis of motor performance. Motor control is the basis of any movement, being in sport or in daily life. In most cases we aim to improve and optimise our movements to be more efficient. In order to improve it is essential that we can record and analyse our performance. Utilising scientific movement analysis methods to acquire reliable data for analysis we can understand where progress can be made. This can then inform strategies to enhance motor performance and learning. Case studies and data analysis will form the backbone of the assessment. | |
| Module Assessment:  Course work – Choice of method of movement analysis with justification. (1,250 words) (40%)  Course work - Analysis of movement data and prescription of way forward in a report two parts - professional justification and report for the athlete/person (2,000 words or equivalent depending upon submission format) (60%) | |

**Promoting Physical Activity for Health and Well-being - 35283 (LH) Sem 1 - 20 credits**

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| Module Leader: Afroditi Stathi | Lecture Times: (TBC) |
| Module Description:  This module will critically assess the scientific evidence surrounding different interventions aiming to promote physical activity for health and well-being at individual and population level. Specifically, it aims to develop and apply knowledge of the process of designing, implementing and evaluating physical activity interventions. Students on this module will develop an in-depth understanding of the practical challenges associated with designing, implementing and evaluating physical activity interventions. The module will also cover the policy environment for physical activity interventions and the need for programmes that contribute to the sustainable development goals agenda. | |
| Module Assessment:  Critical literature review (1000 words; 40%)  Video-recorded presentation followed by a short Q&A session (60%, comprising 20% group mark, 20% individual mark, 20% Q&A individual mark). | |

**Performing in Extreme Environments - 35282 (LH) Sem 1 - 20 credits**

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| Module Leader: George Balanos | Lecture Times: (TBC) |
| Module Description:  The physiological adaptations that take place due to exposure to challenging environmental conditions provide clear insight into normal physiology and homeostatic mechanisms. The module will cover three main areas: altitude, pressure (diving, g-force, weightlessness) and cold/hot environments. In each section of the module the physiological adaptations that occur in challenging environmental conditions will be described before exploring the cost that is imposed on the human body during exercise in these conditions. The module will also cover the strategies that are commonly employed to protect human performance in these conditions and how, in some instances, environmental conditions are exploited to enhance sporting performance. Each section will have seminars and a practical component. | |
| Module Assessment:  Written coursework (40%; 1,500 word)  Seen exam (60%; 2 hours) | |

**Semester 2 Modules**

**Athletic training and conditioning – 35274 (LH) Sem 2 - 20 credits**

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| Module Leader: Barry Drust | Lecture Times: (TBC) |
| Module Description:  This module will extend students’ knowledge of applied exercise physiology. Students will critically assess the scientific evidence around athletic training and conditioning programme design in order to critique common practice, established ‘knowledge’ and innovative approaches. A particular focus will be given to the development of both theoretical and practical expertise.  The following key training principles will be covered:  - Assessment/evaluation  - Periodization  - Injury prevention/overtraining  - Rehabilitation  - Specific populations | |
| Module Assessment:  Coursework: Athlete assessment and training programme (1500 words; 50% of module mark)  Exam: essay and problem based (2 hours; 50%) | |

**Sociology of Sport: Participation & Performance - 26424 (LH) Sem 2 - 20 credits**

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| Module Leader: Martin Toms | Lecture Times: (TBC) |
| Module Description:  This module will build upon the foundations of sociology explored in the year 1 module. It then explores a number of these concepts (for example interactionist and figurational theories and the work of theorists like Bourdieu, Elias and Foucault) as they apply to the spectrum of participation in sport (with a focus upon coaching). Students will be involved in the sociological analysis of issues such as (for example) talent identification; participant development; the coach athlete dyad; and the influence of the family on participation from the perspectives of key stakeholders, using the theoretical frameworks (e.g. social capital) to explore the meaning of participation at these levels. Theoretical analysis will be used to further develop depth and breadth of understanding of these issues and implications for teachers and coaches. Other areas that will be explored include (for example) power, social positioning and socialisation. All of these will be explored along the spectrum of participation to performance levels, with emphasis on the engagement of the students on  theorising and reflecting upon their own developmental experiences. | |
| Module Assessment:  Assignment (2000 words) : Coursework (40%) Unseen Written 2 hour Examination: Exam (Centrally Timetabled) - Written Unseen (60%) | |

**Clinical Neuroscience and Rehabilitation - 35277 (LH) Sem 2 - 20 credits**

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| Module Leaders: David Punt & Ned Jenkinson | Lecture Times: (TBC) |
| Module Description:  Neurological diseases (e.g. stroke, Parkinson’s disease) and brain injury are major causes of disability, typically affecting how people move and function.  Healthcare provision in the area is dominated by rehabilitation.  The field of neuroscience has developed rapidly in recent years and our improved related knowledge should offer hope and promise for individuals affected by neurological disease.  However, the challenges of translating promising findings from the neurosciences into real world benefits for individuals has proved difficult and represents a major current and future challenge for research and practice.  This module responds directly to this challenge, introducing students to the behavioural (e.g. how movement is affected) and neural (e.g. how the brain adapts) consequences of neurological damage and how an understanding of these can and has led to progress.  In doing so, the focus of the module will be on how behaviour and the nervous system is affected by disease or injury and how it responds and adapts as a result of time (e.g. natural recovery, degeneration) and interventions (e.g. specific forms of exercise). | |
| Module Assessment:  Lab report (50%; 1500 words)  Exam (50%; 2 hours) | |

**Sport and Mental Health- 35285 (LH) Sem 2 - 20 credits**

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| Module Leader: Jennifer Cumming | Lecture Times: (TBC) |
| Module Description:  Mental health problems are the largest single source of disability (23%) in the UK and is a major cause of disease burden worldwide. Participating in sport offers opportunities for developing good mental health and well-being, but elite athletes can be susceptible to mental health problems and are less likely to seek support for these issues. The aim of this module is to examine how the culture and pressures of competitive sport contributes to poor mental health and the specific risk factors faced by elite athletes, coaches, and sport officials. We will also explore the protective factors available through sport and critically appraise the evidence-based of sport-specific interventions for improving athletes’ optimal functioning and well-being. | |
| Module Assessment:  1500 word case formulation report (40%)  2 hr written unseen examination (60%) | | |

**Exercise Prescription in Health and Disease- 35278 (LH) Sem 2 - 20 credits**

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| Module Leader: Jet Veldhuijzen van Zanten | Lecture Times: (TBC) |
| Module Assessment:  This module will critically assess the scientific evidence of physical activity and exercise interventions to enhance physiological and psychological health in different populations.  Specifically, it will cover:   * Physiological benefits of exercise/physical activity and its underlying mechanisms, such as muscle strength, cardiovascular benefits, immunological benefits * Psychological benefits of exercise/physical activity and its underlying mechanisms, such as depression, anxiety, fatigue * Benefits of different exercise modalities, such as resistance exercise, aerobic exercise, yoga, physical activity * Design of interventions to encourage the uptake and maintenance of exercise behaviour * Benefits of exercise for specific populations, such as rheumatoid arthritis, multiple sclerosis, Alzheimer’s, older adults | |
| Module Assessment:  Public facing exercise promotions materials with scientific justification (40%; max 1000 words for promotion materials plus max of 1500 words for scientific justification)  Exam (60%; 2 hours) | |

**Contemporary Issues in Physical Education- 28400 (LH) Sem 2 - 20 credits**

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| Module Leader: Frank Herold | Lecture Times: (TBC) |
| Module Description:  This module draws together the knowledge and skills gained in the preceding sport pedagogy, coaching and teaching modules. Students will explore contemporary issues in Physical Education based on critical analysis of the literature in the field as well as analysis of cases and case studies from PE practice. As part of the module students will discuss and evaluate key research in physical education also experience and evaluate exemplar and innovative approaches to teaching PE. | |
| Module Assessment:  Case Study (2,000 words): Coursework (40%) Unseen 2 hour Examination: Exam (Centrally Timetabled) - Written Unseen (60%) | |

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