

## MODULE SPECIFICATION

| Part 1: Basic data        |   |                    |                           |                   |          |
|---------------------------|---|--------------------|---------------------------|-------------------|----------|
| Module title              | Exercise Physiology   |                    |                           |                   |          |
| Module code               | UISXSB-15-2   | Level              | 2                         | Version           | 2.0      |
| Owning faculty            | Hartpury  | Field              | Sport Science             |                   |          |
| Contributes towards       | BSc (Hons) Equestrian Sports Science<br>BSc (Hons) Sport and Exercise Sciences<br>BSc (Hons) Sport and Exercise Sciences (SW)<br>BSc (Hons) Sport and Exercise Nutrition<br>BSc (Hons) Sport and Exercise Nutrition (SW)<br>BSc (Hons) Sports Conditioning and Injury Management<br>BSc (Hons) Sports Conditioning and Injury Management (SW)<br>BSc (Hons) Sports Therapy<br>BSc (Hons) Sports Therapy (SW)<br>BSc (Hons) Strength and Conditioning<br>BSc (Hons) Strength and Conditioning (SW) |                    |                           |                   |          |
| UWE credit rating         | 15  | ECTS credit rating | 7.5                       | Module type       | Standard |
| Pre-requisites            | Introduction to Human Physiology (UISXL9-15-1); <b>OR</b><br>Introduction to Exercise Physiology (UISXL7-15-1); <b>OR</b><br>Introduction to Equestrian Sports (UIEXN7-30-1)  |                    | Co-requisites             | None              |          |
| Excluded combinations     | None  |                    | Module entry requirements | Stand alone       |          |
| Valid from                | 01 September 2016<br>V2.0- 01 September 2018  |                    | Valid to                  | 01 September 2024 |          |
| Initial CAP approval date | 03 February 2015  |                    | Revised CVC Approval Date | V2.0- 02 May 2018 |          |

| Part 2: Learning and Teaching |  |
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| Learning outcomes             | On successful completion of this module students will be able to:<br><br>1 Apply key physiological principles relating to exercise physiology (A).<br>2 Explain the theoretical principles and physiological mechanisms that underpin the body's responses and adaptation to exercise (A, B).<br>3 Evaluate and interpret information collected within a sport and/or exercise context (A, B).<br>4 Demonstrate critical understanding in the acquisition and analysis of information (B). |
| Syllabus outline              | 1 Ethics of testing.<br>2 Pre-test preparation.<br>3 Anthropometry.<br>4 Cardiovascular function during exercise.<br>5 Respiratory function during exercise.<br>6 Maximal oxygen uptake.<br>7 Blood lactate transition thresholds.<br>8 Lab and field based testing.<br>9 Assessment of maximal exercise intensity.  |

| Contact hours                           | <p>Indicative delivery modes:</p> <table border="0"> <tr> <td>Lectures, guided learning, seminars etc</td> <td style="text-align: right;">33</td> </tr> <tr> <td>Self directed study</td> <td style="text-align: right;">3</td> </tr> <tr> <td>Independent learning</td> <td style="text-align: right;">114</td> </tr> <tr> <td><b>TOTAL</b></td> <td style="text-align: right;"><b>150</b></td> </tr> </table>  | Lectures, guided learning, seminars etc | 33                    | Self directed study   | 3   | Independent learning    | 114                   | <b>TOTAL</b>    | <b>150</b> |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
|---|--|---|-----------------------|-----------------------|---|-------------------------|-----------------------|-----------------|------------|----|-----|---|-----|------------------------------------|-----|----------------------------------|-----|--------------------------------------|----|--|------|
| Lectures, guided learning, seminars etc | 33   |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Self directed study                     | 3  |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Independent learning                    | 114  |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| <b>TOTAL</b>                            | <b>150</b>   |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Teaching and learning methods           | <p><b>Scheduled learning</b><br/>May include lectures, seminars, tutorials, project supervision, demonstration, practical classes in the Human Performance Laboratory and workshops; fieldwork; external visits; work based learning; supervised time in studio/workshop. Practical activities will focus on specific exercise physiology assessments designed to gauge relevant components of physiological function.</p> <p><b>Independent learning</b><br/>May include hours engaged with essential reading, case study preparation, assignment preparation and completion etc.</p> <p><b>Virtual learning environment (VLE)</b><br/>This specification is supported by a VLE where students will be able to find all necessary module information. Direct links to information sources will also be provided from within the VLE.</p>  |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Key information sets information        | <p>Key information sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.</p> <p><b>Key Information Set – Module Data</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">Number of credits for this module</td> <td style="border: 1px solid black; text-align: center; width: 30%;">15</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 15%;">Hours to be allocated</th> <th style="width: 25%;">Scheduled learning and teaching study hours</th> <th style="width: 20%;">Independent study hours</th> <th style="width: 20%;">Placement study hours</th> <th style="width: 20%;">Allocated Hours</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">150</td> <td style="text-align: center;">36</td> <td style="text-align: center;">114</td> <td style="text-align: center;">0</td> <td style="text-align: center;">150</td> </tr> </tbody> </table> <p>The table below indicates as a percentage the total assessment of the module which constitutes a:</p> <ol style="list-style-type: none"> <li>1 <i>Written Exam</i>: Unseen written exam, open book written exam, in-class test.</li> <li>2 <i>Coursework</i>: Written assignment or essay, report, dissertation, portfolio, project.</li> <li>3 <i>Practical Exam</i>: Oral Assessment and/or presentation, practical skills assessment, practical exam.</li> </ol> <p>Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:</p> <p>Total assessment of the module:</p> <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 60%;">Written exam assessment percentage</td> <td style="border: 1px solid black; text-align: center; width: 40%;">50%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td style="border: 1px solid black; text-align: center;">50%</td> </tr> <tr> <td>Practical exam assessment percentage</td> <td style="border: 1px solid black; text-align: center;">0%</td> </tr> <tr> <td></td> <td style="text-align: center;">100%</td> </tr> </table> | Number of credits for this module       | 15                    | Hours to be allocated | Scheduled learning and teaching study hours | Independent study hours | Placement study hours | Allocated Hours | 150        | 36 | 114 | 0 | 150 | Written exam assessment percentage | 50% | Coursework assessment percentage | 50% | Practical exam assessment percentage | 0% |  | 100% |
| Number of credits for this module       | 15   |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Hours to be allocated                   | Scheduled learning and teaching study hours  | Independent study hours                 | Placement study hours | Allocated Hours       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| 150                                     | 36   | 114                                     | 0                     | 150                   |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Written exam assessment percentage      | 50%  |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Coursework assessment percentage        | 50%  |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Practical exam assessment percentage    | 0%   |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
|   | 100%   |   |                       |                       |   |                         |                       |                 |            |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |

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| Reading strategy        | <p><b>Core readings</b><br/>Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be required to purchase a set text, be given a print study pack or be referred to texts that are available electronically or in the Library. Module guides will also reflect the range of reading to be carried out.</p> <p><b>Further readings</b><br/>Further reading will be required to supplement the set text and other printed readings. Students are expected to identify all other reading relevant to their chosen topic for themselves. They will be required to read widely using the library search, a variety of bibliographic and full text databases, and Internet resources. Many resources can be accessed remotely. The purpose of this further reading is to ensure students are familiar with current research, classic works and material specific to their interests from the academic literature.</p> <p><b>Access and skills</b><br/>Formal opportunities for students to develop their library and information skills are provided within the induction period and study skills sessions. Additional support is available through online resources. This includes interactive tutorials on finding books and journals, evaluation information and referencing. Sign up workshops are also offered.</p>  |
| Indicative reading list | <p>The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms, including the module guide.</p> <ul style="list-style-type: none"> <li>• Astrand, P., Rodahl, K., Dahl, H. and Stromme, S. (Current Edition). <i>Textbook of Work Physiology</i>. Champaign: Human Kinetics.</li> <li>• Brown, S., Miller, W. and Eason, J. (Current Edition) <i>Exercise Physiology. Basis of Human Movement in Health and Disease</i>. London: Lippincott Williams and Williams.</li> <li>• Guyton, A. and Hall, J. (Current Edition) <i>Human Physiology and Mechanism of Disease</i>. London: W.B. Saunders and Co.</li> <li>• Hale, T. (Current Edition) <i>Exercise Physiology. A Thematic Approach</i>. Chichester: John Wiley and Son.</li> <li>• Kenny, W.L, Wilmore, J.H. and Costill, D.L. (Current Edition) <i>Physiology of Sport and Exercise. Fifth Edition</i>. Champaign, IL: Human Kinetics.</li> <li>• Marieb, E. (Current Edition) <i>Human Anatomy and Physiology</i>. New York: Pearson.</li> <li>• Martini, F. (Current Edition) <i>Fundamentals of Anatomy and Physiology</i>. London: Pearson.</li> <li>• McCardle, W.D., Katch, F.I. and Katch V.L. (Current Edition). <i>Exercise Physiology: Energy, Nutrition and Human Performance</i>. London: Lippincott Williams and Williams.</li> <li>• Tortora, G.J. and Derrickson, B. (Current Edition) <i>Principles of Anatomy and Physiology</i>. Chichester: John Wiley and Sons.</li> </ul> <p>Journals:</p> <ul style="list-style-type: none"> <li>• British Journal of Sports Medicine.</li> <li>• Canadian Journal of Applied Physiology.</li> <li>• Exercise and Sport Science Reviews.</li> <li>• European Journal of Applied Physiology.</li> <li>• International Journal of Sports Medicine.</li> <li>• Journal of Applied Physiology.</li> <li>• Journal of Physiology.</li> <li>• Journal of Sports Sciences.</li> <li>• Medicine and Science in Sport and Exercise.</li> <li>• Research Quarterly for Exercise and Sport.</li> <li>• Sports Medicine.</li> </ul> |

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|  | Websites and databases: <ul style="list-style-type: none"> <li>• American College of Sports Medicine <a href="http://www.acsm.org">http://www.acsm.org</a>.</li> <li>• Journal of Sports Science &amp; Medicine <a href="http://www.jssm.org">http://www.jssm.org</a>.</li> <li>• Pub Med <a href="http://www.ncbi.nlm.nih.gov/entrez/query.fcgi">http://www.ncbi.nlm.nih.gov/entrez/query.fcgi</a>.</li> <li>• Sports Science <a href="http://www.sportsci.org">http://www.sportsci.org</a>.</li> <li>• The Physiological Society <a href="http://www.physoc.org">http://www.physoc.org</a>.</li> </ul> |
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| <b>Part 3: Assessment</b> |
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| <b>Assessment Strategy</b> | <p>Summative assessment will reflect the approach to the module, whereby students will be expected to demonstrate knowledge and understanding of principles in exercise physiology. The written exam will address students' ability to demonstrate knowledge and understanding of the key principles in exercise physiology. The laboratory report will allow for the development of knowledge and intellectual skills, focusing on the application of theoretical principles.</p> <p>Formative assessment opportunities will be provided through similar formats. Feedback will be provided on these attempts prior to summative assessments.</p> <p>In line with the College's commitment to facilitating equal opportunities, a student may apply for alternative means of assessment if appropriate. Each application will be considered on an individual basis taking into account learning and assessment needs. For further information regarding this please refer to VLE.</p> <p><b>Students studying the BSc (Hons) Sports Therapy are required to gain a minimum of 40% in each component and element. In addition, no compensation or condonement may be applied.</b></p> |
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|   |                     |
|---|---------------------|
| Identify final assessment component and element | Written examination |
|---|---------------------|

|   |           |           |
|---|-----------|-----------|
| <b>% weighting between components A and B</b> (Standard modules only) | <b>A:</b> | <b>B:</b> |
|   | 50%       | 50%       |

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| <b>First Sit</b> |
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|  |                          |
|--|--------------------------|
| <b>Component A</b> (controlled conditions)<br><b>Description of each element</b> | <b>Element weighting</b> |
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| 1 Written examination (1.5 hours) | 100% |
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| <b>Component B</b><br><b>Description of each element</b> | <b>Element weighting</b> |
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|-----------------------------------|------|
| 1 Laboratory report (1,500 words) | 100% |
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| <b>Resit (further attendance at taught classes is not required)</b> |
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| <b>Component A</b> (controlled conditions)<br><b>Description of each element</b> | <b>Element weighting</b> |
|--|--------------------------|

|                                   |      |
|-----------------------------------|------|
| 1 Written examination (1.5 hours) | 100% |
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| <b>Component B</b><br><b>Description of each element</b> | <b>Element weighting</b> |
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|                                   |      |
|-----------------------------------|------|
| 1 Laboratory report (1,500 words) | 100% |
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If a student is permitted an **EXCEPTIONAL RETAKE** of the module the assessment will be that indicated by the Module Description at the time that retake commences.