HARTPURY
UNIVERSITY CENTRE

Module Specification

Part 1: Basic Data						
Module Title	Foundation Biological Principles					
Module Code	UINV8E-30-0		Level	0	Version	1
Credit Rating	30	ECTS Credit Rating	15	WBL module?	No	
Owning Faculty	Hartpury		Field	Animal and Land Sciences		
Department	Animal		Module Type	Standard		
Contributes towards	BSc (Hons) Applied Animal Science BSc (Hons) Applied Animal Science (SW) BSc (Hons) Applied Animal Science with Therapy BSc (Hons) Applied Animal Science with Therapy (SW) BSc (Hons) Animal Behaviour and Welfare BSc (Hons) Bioveterinary Science BSc (Hons) Equestrian Sports Science BSc (Hons) Equine Science BSc (Hons) Equine Science (SW) BSc (Hons) Equine Science with Therapy BSc (Hons) Equine Science with Therapy (SW) BSc (Hons) Sport and Exercise Nutrition BSc (Hons) Sport and Exercise Nutrition (SW) BSc (Hons) Sport and Exercise Science BSc (Hons) Sport and Exercise Science (SW) BSc (Hons) Physical Education and School Sport BSc (Hons) Strength and Conditioning BSc (Hons) Strength and Conditioning (SW)					
Pre-requisites	None		Co- requisites	None		
Excluded Combinations	None		Module Entry requirements	None		
Last Major Approval Date	V1 27 April 2017		Valid from	V1 01 September 2017		
Amendment Approval Date			Revised with effect from			

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: 1. Describe the principles of organism taxonomy and classification of organisms into Kingdoms, Phyla, genera, species and sub-species groups (B); 2. Demonstrate a knowledge of the criteria of life and the cell as the unit of life, together with its component organelles (A) 3. Identify common atomic and molecular structures (A) 4. Demonstrate a basic understanding of metabolic pathways (B) 5. Describe aspects of comparative organism physiology by examination of form and function (B) 6. Show an understanding of the principles and mechanisms of genetics and evolution and biological energetics (B) 7. Understand how knowledge of biology can be utilised in practice (B) 8. Conduct practical laboratory methods used in biological study and interpret and report their observations (A)

Syllabus Outline	Introduction to: • Central themes in biology. • The criteria of life, the cell as the unit of life and the establishment and use of the genetic blueprint. • Biomolecules as building blocks of life including atoms, molecules and different molecular structures and bonds. • Metabolic biochemistry with an emphasis on catabolism and energy capture. • Membrane structure and function. • Comparative animal physiology. • Comparative aspects of whole organism physiology. • Evolution. • Principles of taxonomy and classification. • Plants. • Ecology. • Ecosystems and the stresses upon the environment. • Microbiology and biotechnology.
Teaching and Learning Methods (and contact hours)	Scheduled learning will include formal lectures, laboratory classes and associated group tutorial exercises and discussions. Practical classes in the laboratory will cover the principles of microbiological study including growth, staining and identification of various microorganisms, areas of applied biology including microbial-derived enzyme isolation and testing, and DNA isolation and staining. Students will be able to practice their practical skills during facilitated workshops to ensure that they both understand the principles but can also apply these in practical contexts. Student learning will be supported by electronic teaching materials posted on the VLE and the use of hand-out material in lectures and tutorials. Students will be expected to spend a significant amount of time in private study and in preparing for assessments, consulting relevant text books, journal articles and recommended web sites.
Key Information Sets Information	HEFCE require Key Information Sets (KIS) to be produced at programme level for all undergraduate programmes of more than one year in length. 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. **Key Information Set - Module data** *Number of credits for this module* 30 Hours to be allocated: 300 — Scheduled learning and teaching study hours: 90 — Independent study hours: 210 — Placement study hours: 0 — Allocated Hours: 300 The table below indicates as a percentage the total assessment of the module which constitutes a - **Written Exam**: Unseen written exam, open book written exam, In-class test **Coursework**: Written assignment or essay, report, dissertation, portfolio, project **Practical Exam**: Oral Assessment and/or presentation, practical skills assessment, practical exam 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:

	Total assessment of the module:
	Written exam assessment percentage: 0%
	Coursework assessment percentage: 50%
	Practical exam assessment percentage: 50%
	100%
Reading Strategy	***Essential reading*** Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given a 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. ***Further reading*** Further reading is advisable for this module, and students will be encouraged to explore at least one of the titles held in the library on this topic. A current list of such titles will be given in the module handbook and revised annually. ***Access and skills*** Formal opportunities for students to develop their library and information skills are provided within the induction period and studyt 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.
Indicative Reading List	The following list is offered to provide 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. Reece, J.B., Urry, L.A., Cain, M.L., Wasserman, S.A., Minorsky, P.V. and Jackson, R.B. (2001) *Campbell BIOLOGY*. 9th ed. San Fransisco: Pearson Education Inc. (Pearson Benjamin Cummings), Morris, J., Hartl, D., Knoll, A. and Lue, R. (2013) *Biology How Life Works* New York: W.H. Freeman and Company. Students are also advised to consult related texts on Biology and more specific aspects of Biology. These include: Pollard, T.D. (2008) *Cell Biology.* Philadelphia, PA, USA: Saunders/Elsevier. Reece, J.B. (2012) *Campbell Biology: concepts & connections*. Boston, MA, USA: Benjamin Cummings, Smith, J.E. (2009) *Biotechnology*. Cambridge: Cambridge University Press. Sutton, J. (1998) *Biology* Basingstoke: Macmillan. Tortora, G.J. (2004) *Microbiology: an introduction*. San Francisco, CA, USA/London: Benjamin Cummings,

Part 3: Assessment	
Assessment Strategy	Students will undertake laboratory experiments and exercises designed to learn basic biological and microbiological laboratory techniques. Students will be assessed on the quality of their laboratory reports which will reflect their ability to perform the techniques involved, record and interpret their results and observations, and place these in the context of accepted knowledge. Their practical skills will be assessed during a practical examination to ensure competence is gained to support future activities. In line with the Institution'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 the VLE.

Identify final assessment component and element	**Practical examination**	
% weighting between components A and B (Standard modules only)	**A:** **50%**	**B**: **50%**

First Sit	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Practical examination (45 minutes)	100%
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. Practical portfolio (equivalent to 2000 words)	100%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Practical examination (45 minutes)	100%
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. Practical portfolio (equivalent to 2000 words)	100%
If a student is permitted a retake of the module under the Academic Regulations and Procedures, the assessment will be that indicated by the Module Specification at the time that retake commences.	