

## MODULE SPECIFICATION FORM

Module Title: Foundation Zoological Science	Level: 4	Credit Value: 20
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Module code: ANM405 (if known)	Cost Centre: GAAN	JACS2 code: C300
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Semester(s) in which to be offered: 1&2	With effect from: Sept 2013
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<b>Office use only:</b> To be completed by AQSU:	Date approved: August 2013 Date revised: - Version no: 1
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Existing/New: Existing	Title of module being replaced (if any):
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Originating Academic area: Biology and Environment	Module Leader: Rosie MacDiarmid
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Module duration (total hours) 200 Scheduled learning & teaching hours 50 Independent study hours 150 Placement hours 0	Status: core (identify programme where appropriate):
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Percentage taught by Subjects other than originating Subject (please name other Subjects): Nil
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Programme(s) in which to be offered: FdSc Animal Studies BSc (Hons) Equine Science and Welfare Management	Pre-requisites per programme (between levels):
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**Module Aims:**

- 1) To develop an understanding of the key principles of animal biology
- 2) To establish basic practical laboratory skills
- 3) To relate anatomical structure to function

**Expected Learning Outcomes**

At the end of this module, students should be able to:

**Knowledge and Understanding:**

- 1) Explain hierarchical structure and evolutionary origins of animal phyla
- 2) Review the structure of animal cells, tissues and organs, and explain the functions of the main components
- 3) Relate the structure of organ systems to function

**Transferable/Key Skills and other attributes:**

Group work, practical laboratory skills, research skills, illustrative skills, observational competence.

**Assessment:**

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting	Duration (if exam)	Word count (or equivalent if appropriate)
1	1	Essay	40%		1600
2	2&3	Portfolio	60%		2400
Brief description of indicative assessment					
Essay		Students will produce an essay which examines hierarchical structure and evolutionary links within animal phyla			
Portfolio		Students will be involved in a series of lectures and practical laboratory sessions. They will be required to produce a portfolio which documents the practical skills and knowledge gained during the practical laboratory sessions and demonstrates an understanding of biological systems.			

**Learning and Teaching Strategies:**

The module will be taught through a series of lectures, seminars and practical laboratory sessions. Laboratory skills, such as microscopy, scientific drawing and dissection will be developed throughout.

**Syllabus outline:**

- Introduction to Zoological Science
- Origin and Characteristics of life
- Classification Systems
- Theory of evolution
- Animal phyla
- Animal cell structure and function
- Animal tissue structure and function
- Organ systems and function
  - Digestive System
  - Respiratory System
  - Circulatory system
  - Urinary system
  - Nervous system
  - Reproductive system
- Microscopy
- Dissection and identification of anatomical structures

**Bibliography**

## Essential reading:

Hickman, C.P., Keen, S.L., Larson, A., Eisenhour D.J. (2010) *Integrated Principles of Zoology* McGraw Hill Higher Education, Boston

Reece, W.O (2009) *Functional anatomy and physiology of domestic animals*. Wiley-Blackwell, Oxford

## Other indicative reading:

Allaby, M.A., (2009) *A Dictionary of Zoology (Oxford paperback reference)* Oxford University Press, Oxford

Moyes, C., Schulte, P. (2007) *Principles of Animal Physiology*. Pearson Education Ltd, Harlow

Sadava,D., Hillis, D., Heller, C., and Brearbaum, M., (2009) *Life: The Science of Biology. 9<sup>th</sup> Edition* WH Freeman and Co. Basingstoke

Young, B., Lowe, J.S., Stephens, S., and Heath,J., (2006) *Wheatears Functional histology: A text and colour atlas*. Churchill Livingstone Elsevier, Philadelphia

Reference may also be made to contemporary research articles from journals such as  
Journal of Biology  
Journal of Zoology  
Nature