PETROC | UNIVERSITY OF PLYMOUTH

ACADEMIC PARTNERSHIPS PROGRAMME QUALITY HANDBOOK 2023-24

FdSc Animal Conservation

Contents

1. Welcome and Introduction

Welcome to FdSc Animal Conservation delivered at North Devon Campus by Petroc.

This degree gives students the knowledge and practical skills to be competent in a wide range of fundamental conservation skills from animal health to zoo conservation techniques. During this course we will make use of the surrounding areas, involving students in practical conservation activities in the diverse range of habitats we are fortunate enough to have on our doorstep in North Devon.

Students studying the FdSc Animal Conservation will engage in a variety of meaningful ecological and zoological work in the field, enabling them to gain real work-based competencies. The course will also provide students a sound understanding of the ecological and biological principles that underpin animal conservation.

This programme has been designed to equip you with the skills and knowledge base required to work in your chosen specialism or other graduate opportunities. It is also a platform from which you can undertake additional vocational and academic qualifications.

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This Programme Quality handbook contains important information including:

- The approved programme specification
- Module records

Note: The information in this handbook should be read in conjunction with the current edition of:

- Your University Student Institution Handbook which contains student support based information on issues such as finance and studying at HE available at: https://my.petroc.ac.uk/moodle/moodle_3/course/view.php?id=3059
- Your Module Guide available at: https://my.petroc.ac.uk/moodle/moodle_3/course/view.php?id=1746
- Your University of Plymouth Student Handbook available at: https://www.plymouth.ac.uk/your-university/governance/student-handbook

2.   Programme Specification

Below are the overarching details of the course:

Awarding Institution:	University of Plymouth
Partner Institution:	Petroc
Accrediting Body:	N/A
Language of Study:	English
Mode of Study:	Full and Part Time
Final Award:	FdSc Animal Conservation
Intermediate Award:	None
Programme Title:	Animal Conservation
UCAS Code:	D3H8
JACS Code:	C990
Benchmarks:	Informed by the QAA Benchmark for Biosciences and the Foundation Degree Qualification Benchmark
Date of Programme Approval:	2015

The Programme will deliver:

3. A range of exercises to enable students to develop transferable skills, work effectively in teams and with outside agencies, and develop an adaptable, flexible and reflective approach to study and work.
4. An appreciation of the complexity and diversity of life processes and react to their study in sensitive and appropriate ways, encompassing ethical and safe processes and competencies.
5. Personal and professional development, furthering students' knowledge and understanding of a broad based core covering the major elements of animal conservation to include the critical analysis of current and relevant literature and practice.
6. A pathway which develops the student's ability to understand and gather information and data within a theoretical framework accompanied by critical analysis and assessment, including data analysis and statistics.
7. Students who gradually develop as autonomous lifelong learners with a sense of study and enquiry, and the ability to comprehend and contextualise continuing change as part of an ongoing programme of continuing professional development and the applicability of their subject to their eventual career.
8. The development of key intellectual, cognitive, numeracy, practical and research skills, and competence in practical research and experimental skills.

Programme Intended Learning Outcomes (ILO)

Intended learning outcomes have been drawn up using QAA Benchmark Statements for Biosciences, as well as being informed by the Foundation Degree qualification benchmark.

By the end of this programme, students will be able to:

Development of Knowledge and Understanding

Knowledge and understanding

K1. Demonstrate up-to date knowledge and understanding of Animal Behaviour, Welfare, Conservation and Management accompanied by critical analysis and evaluation.

K2. Identify, explain and apply major concepts including population processes, dynamics and interactions, and evolutionary factors.

K3. Understand the applicability of the subject to the development of knowledge and practice in the field of Animal Conservation.

Cognitive and intellectual skills

C1. Recognise and apply theories, paradigms, concepts and principles.

C2. Analyse, synthesise and summarise information critically to integrate evidence, formulate and test hypotheses.

C3. Recognise and understand the moral, safety and ethical issues of investigation and research, appreciating the need for ethical standards and professional codes of conduct.

Key transferable skills

T1. Demonstrate competency in communication via a range of methods and an appropriate level of numeracy, literacy, IT literacy and field and laboratory skills.

T2. Identify individual and collective goals and responsibilities, evidencing the ability to recognise and respect the views of others and effectively work as part of a team.

T3. Competency in field, practical and laboratory skills and present and evaluate information in numerical or statistical form

Practical and employment skills

P1. Work in groups as a participant who contributes effectively to the group's task.

P2. Work independently with decreasing levels of supervision and increasing levels of autonomy, setting objectives and taking responsibility for learning.

P3. To have undertaken sufficient practical work to ensure competence in the basic experimental skills and recognise and appreciate the importance of risk assessment, relevant health and safety regulations and procedures for ethical and sensitive research and field work.

P4. To have undertaken Work Based Learning and had meaningful contact with outside agencies, providers and/or employers.
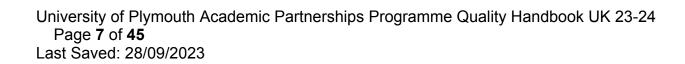
Progression:

BSc (Hons) Biosciences Level 6 (University of Plymouth) - https://www.plymouth.ac.uk/courses/undergraduate/bsc-biosciences

Programme Structure

The following structure diagram(s) provides the current structure for this programme:

FHEQ Level: 4 For: Animal Conservation (Full Time) 5323			
F/T Route Year / Semester	Core or Option Module	Credits	Module
1) Semester 1 (AU)	Core	20	NORD1076 Animal Anatomy and Physiology
1) Semester 2 (SP)	Core	20	NORD1077 Animal Behaviour
1) All year	Core	20	NORD1078 Ecology and Conservation
1) All year	Core	20	NORD1079 Developing Graduate Skills
1) Semester 2 (SP)	Core	20	NORD1080 Animal Health and Disease
1) Semester 1 (AU)	Core	20	NORD1081 Zoological Conservation
FHEQ Level: 5 For: Animal Conservation (Full Time)			
F/T Route Year / Semester	Core or Option Module	Credits	Module
2) All year	Core	20	NORD2077 Practical Conservation Skills
2) Semester 1 (AU)	Core	20	NORD2082 Wildlife Management and Rehabilitation
2) Semester 1 (AU)	Core	20	NORD2078 Marine Animal Biology and Conservation
2) Semester 2 (SP)	Core	20	NORD2080 Applied Zoological Science
2) Semester 2 (SP)	Core	20	PETR2101 Behavioural Ecology
2) All year	Core	20	PETR2171 Experimental Design and Analysis

FHEQ Level: 4 For: Animal Conservation (Part Time) 5324			
P/T Route Year / Semester	Core or Option Module	Credits	Module
1) Semester 1 (AU)	Core	20	NORD1076 Animal Anatomy and Physiology
1) Semester 2 (SP)	Core	20	NORD1077 Animal Behaviour
1) All year	Core	20	NORD1078 Ecology and Conservation
1) All year	Core	20	NORD1079 Developing Graduate Skills
2) Semester 2 (SP)	Core	20	NORD1080 Animal Health and Disease
2) Semester 1 (AU)	Core	20	NORD1081 Zoological Conservation
FHEQ Level: 5 For: Animal Conservation (Part Time)			
P/T Route Year / Semester	Core or Option Module	Credits	Module
2) All year	Core	20	NORD2077 Practical Conservation Skills
2) Semester 1 (AU)	Core	20	NORD2082 Wildlife Management and Rehabilitation
3) Semester 1 (AU)	Core	20	NORD2078 Marine Animal Biology and Conservation
3) Semester 2 (SP)	Core	20	NORD2080 Applied Zoological Science
3) Semester 2 (SP)	Core	20	PETR2101 Behavioural Ecology
3) All year	Core	20	PETR2171 Experimental Design and Analysis

1. Module Records

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE:	NORD1076	MODULE TITLE:	Animal Anatomy & Physiology

CREDITS: 20	FHEQ Level: 4	JACS CODE: D300

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Y

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
This module provides underpinning knowledge for other modules, developing the student's knowledge and understanding of the structure, functioning and maintenance of the animal's body. Support and movement, body transport systems, acquisition of materials, removal of waste, and reproduction are all investigated and their roles are examined in maintaining the overall organism.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	100%	P1 (Practical)	Pass/Fail
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked:	Animal

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
To provide an understanding of the general structure of the skeleton, types of bone, structure, function and contraction of different types of muscle, different types of joints and movements. Students will explore composition and functions of blood, structure of the cardiovascular system, transport of materials around the body, structure and function of the lymphatic system. Further study will include the structure of the respiratory, digestive and urinary systems, movement of respiratory gases into, around and out of the body, digestive system functioning, kidney function, its role in homeostasis and the role of the central and peripheral nervous system and of the endocrine system.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Examine the means by which support and movement are achieved in animal bodies.
2. Demonstrate a broad understanding of body transport systems.
3. Demonstrate awareness of the basic structures and functioning of the major physiological systems in a range of species.

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	09/2015	SCHOOL/PARTNER:	Petroc

DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 1 (AU)
Additional notes (for office use only):			

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE: 112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT

Students will achieve their learning outcomes through participation in lectures, seminars, demonstrations and integrated laboratory practical's. Tutorials will be used to consolidate and expand information delivered in lectures and practical classes. The module is designed to give students a thorough underpinning knowledge of animal structures and body systems, and how they are coordinated to enable homeostasis and identify principles and concepts of effective management in a range of species.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	38	This will include student presentations and formative assessment.
Practical classes	10	Animal dissection- 2 successive sessions to prevent long term storage of dissected material. Histology sessions would be formatively assessed, to include the completion of a workbook, including drawings on a cellular level.
Guided Independent study	152	Students should explore areas of interest and find current research publications
Total	<u>200</u>	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E		0% Total= 100%	
	T		0% Total = 100%	

Coursework	C1	Lab book (combined with laboratory practical) Presentation	100%	Learning outcomes123
Practical	P1	Laboratory practical	Pass/Fail	LO3

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Done, S. Goody, P. Evans, S. Stickland, N. (2009) *Colour Atlas of Veterinary Anatomy*, Volume 3, The Dog and Cat. Mosby

Dyce, K. Wolfgang, O. Wensing, C. (2009) *Textbook of Veterinary Anatomy.* Fourth Edition. Saunders

Frandson, R. Wilke, W. Dee Fails, A. (2009). *Anatomy and physiology of farm animals.* Philadelphia, USA: Lea and Febiger.

Hill, R. Wyse, G. Anderson, M. (2012) *Animal Physiology.* Sunderland: Sinauer Associates

Reece, W. (2009) *Functional Anatomy & Physiology of Domestic Animals*. Oxford: Wiley-Blackwell

Rees, P. (2011) *An Introduction to Zoo Biology and Management*. Oxford: Wiley-Blackwell

MODULE CODE:	NORD1077	MODULE TITLE:	Animal Behaviour

CREDITS: 20	FHEQ Level: 4	JACS CODE: D390

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Y

SHORT MODULE DESCRIPTOR: *(max 425 characters)*

The module focuses on the explanation of behaviour in relation to function, causation, development and evolution, along with the concept of genes for behaviour.

Students will explore the development of behaviour from embryo to adult involves a continual interaction between the animal's genes and its environment.

Students will learn how to observe and record animal behaviour and how to summarise and present data.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	70%	P1 (Practical)	30%
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:

To introduce the student to the fundamental principles underlying animal behaviour. The module will introduce the notion that there are several levels of explanation of an animal's behaviour (Tinbergen's four questions). From here proximate and ultimate explanations will be developed so that the student understands behaviour in terms of genes and evolution and learning and environmental feedback. In addition, students will be taught how to observe and record the behaviour of animals from a wide range of taxonomic groups and how to calculate and present summary statistics of their observations.

ASSESSED LEARNING OUTCOMES: (additional guidance below)

At the end of the module the learner will be expected to be able to:

1. Demonstrate an understanding of the mechanisms of evolution, and the role of genetics in the context of animal behaviour
2. Demonstrate a broad understanding of the four levels of explanation of behaviour.
3. Recognise the basic principles of behavioural ecology, demonstrating a broad understanding of how behaviour develops
4. Record simple behavioural patterns, processing, interpreting and presenting statistics and appropriate data.

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	09/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 2 (SP)

Additional notes (for office use only):

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE: 112

MODULE LEADER: Samuel Chigoneka	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT
This unit will focus on <u>Tinbergen's four questions</u> – essentially, the explanation of behaviour in relation to function, causation, development and evolutionary history.
<u>The survival value (or function) of behaviour</u> - Here the basic principles of behavioural ecology will be introduced along with the concept of 'genes for behaviour'.
<u>The development of behaviour</u> - How the development of behaviour from embryo to adult involves a continual interaction between the animal's genetic make-up and its environment.
<u>Learning theory</u> - Essentials of classical and instrumental conditioning will be introduced.
<u>Recording behaviour</u> - How to observe and record animal behaviour.
<u>Summary statistics and data presentation</u> - How to summarise and present data in a clear manner.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	38	Students will review animal behaviour, with reference to genetics, development, situation, learning theories and evolution as a whole. Each student will receive approx. 20 minutes 1:1 tuition.
Practical's	10	Ethograms will be introduced and their effective use will be embedded to enable useful data collection, and then analysis
Private study/assignments	152	Students will be encouraged to engage in wider reading and current and seminal research
Total	<u>200</u>	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E		% Total = 100%	
	T		% Total = 100%	
Coursework	C1	Coursework	100% Total = 100%	LO1, 2, 3
Practical	P1	Presentation	100%	LO4

			Total= 100%	

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Alcock, J. (2013) *Animal Behaviour: An Evolutionary Approach*. Sunderland: Sinauer Associates.

Krebs, J. Davies, N. West, S. (2012) *An introduction to behavioural ecology* (4th edition). Oxford, Blackwells.

Manning A. Stamp Dawkins, M.S. (2012) *An Introduction to Animal Behaviour*. Cambridge: Cambridge University Press.

Martin, P. Bateson, P. (2007) *Measuring Behaviour: An Introductory Guide.* Cambridge: Cambridge University Press.

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE:	NORD1078	MODULE TITLE:	Ecology and Conservation

CREDITS: 20	FHEQ Level: 4	JACS CODE: C184

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
The module covers evolutionary theories, mechanisms of evolution, and the consequent impacts this has upon our understanding of ecology. Human and wildlife interaction is also reviewed. The nature of ecosystems and the populations within them will be reviewed in theory and in practice with students engaging in field work to gather appropriate data. National and international conservation strategies will be discussed.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	100 %	P1 (Practical)	Pass/Fail
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Ecology & Conservation

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
The module aims to develop an understanding of ecological and conservation principles to enable students to understand core concepts including changes in global ecosystems, national and international conservation strategies, population dynamics and wildlife and human interaction. The module will also introduce basic field study work and include field work in a range of habitats.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
2. Demonstrate a broad understanding of ecosystems and their dynamic nature, exploring the mechanisms and ecological implications of evolution.
3. Analyse human and wildlife interaction and to identify and explain factors affecting population dynamics
4. Identify and evaluate conservation strategies for wildlife and their habitats

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	All year

Additional notes (for office use only):

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE: 112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT

Students will explore a broad range of ecosystems and biomes and their dynamic nature, exploring the mechanisms and ecological implications of evolution such as climate change. Biogeochemical pathways will be explored, as will evolutionary mechanisms that enable animals to adapt to the dynamic nature of ecosystems. Human and wildlife interactions will be reviewed, including dynamics between different users, and the habitats, such as at Torrington common. This will include population dynamics, boom bust principle, and resource availability. Conservation strategies for wildlife and their habitats will be practically demonstrated and developed upon both in lesson time, and it is expected in the students own time as this will give them an opportunity to arrange extra field survey experience with local organisations.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	16	Students will be taught about the functioning of ecosystems, from the concepts of habitats, populations to ecosystems and biomes. This will be related to both local and global concepts and examples.
Practical	32	Site visits and data gathering will be used to establish these core concepts and to enable students to apply theory to practise, as well as the analysis of ongoing conservation work and its strengths and limitations. This will include both formative and summative assessment
Private study/assignments	152	Students will be expect to read widely around the concepts discussed in class, and to spend their own time developing practical techniques as well as data analysis and understanding via the use of the VLE.
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E		% Total = 100%	
	T		% Total = 100%	
Coursework	C1	Case study write up Report	70% 30% Total = 100%	LO1-2 LO3

Practical	P1		Pass/Fail	LO3 – field work in groups

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Begon, M. Townsed, C. Harper, J. (2006) *Ecology: from Individuals to Ecosystems.* Oxford: John Wiley & Sons.

Hambler, C. Canney, S. (2013) *Conservation.* Cambridge: Cambridge University Press

Carson, R. (2000) *Silent Spring* London: Penguin Classics.

Fryxell, J. Sinclair, A. Caughley, G. (2014) *Wildlife Ecology, Conservation and Management.* Oxford: Wiley-Blackwell.

Primack, R. (2014) *Essentials of Conservation Biology.* Sunderland: Sinauer Associates Inc.

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE:	NORD1079	MODULE TITLE:	Developing Graduate Skills

CREDITS: 20	FHEQ Level: 4	JACS CODE: X220

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: N

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
This module is designed to enable students to demonstrate that they have all the qualities and transferable skills necessary for appropriate academic work and employment requiring the exercise of responsibility and decision making, including the ability to relate their professional practice to underlying theory and principles

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	100%	P1 (Practical)	Pass/Fail
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
- To enable students to develop a comprehensive portfolio of evidence that supports their career development and practice.
- To enable students to demonstrate an approach to their practice that is informed by up to date and relevant theoretical perspectives.
- To support students in developing as autonomous learners at HE level.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Plan for, reflect upon and demonstrate with evidence from own practice the ability to work independently and in a team, using effective communication skills.
2. Undertake a minimum of 50 hours of work experience within a suitable setting
3. Demonstrate how relevant theoretical perspectives have informed and enhanced your practical experience and/or knowledge within your subject area.
4. Evaluate weaknesses and strengths in relation to experiential learning, reflecting upon fulfilling potential roles within the work place/organisation and planning for the development of skills towards career goals.

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	All year

Additional notes (for office use only):

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT
Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE: 112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT
Good graduate skills are essential in today's competitive society. The developing graduate skills module helps build and polish these skills. Time management, reflection, research, planning and organisation, communication, and studying are just some of the skills covered. This module also includes an extensive library induction facilitated by one of our specialist librarians, helping students develop excellent research and referencing skills, and provides training on the extremely useful Plymouth University Portal. Workshops are provided on CV writing, self-assessment auditing, mini skills presentations, lesson planning academic writing and referencing. The development of critical thinking and communication skills are furthered through discussions and debates on topical subjects relevant to animal conservation.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	48	Students will engage in a range of developmental workshops including: self-reflection, note taking, critical thinking, writing & presentation skills, SWOT analysis,
Work Based Learning	50	The students are to identify, organise, complete and enable the authentication of 50 hours of work experience, this is a pass/fail element
Private study/assignments	102	Students will be expected to reflect upon their own experiences using the tools given to them during the formal delivery of the lectures
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E_		% Total = 100%	
	T_		% Total = 100%	
Coursework	C 1	Reflective account	100% Total= 100%	LO1, 3, 4
Practical	P_	50 hours work experience	Pass/Fail	LO2

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Bolton,G. (2005). *Reflective Practice: Writing and Professional Development.* 2nd ed. London: SAGE

Cottrell, S (2013) *The Study Skills Handbook*, London: Palgrave

Creme, P, Lea, M (2008) *Writing at University: A Guide for Students.* 3rd ed. Maidenhead: Open University Press

Pears, R, Shields, G. (2008) Cite *Them Right: The Essential Referencing Guide.* new ed. Newcastle upon Tyne: Pear Tree Books

Wyers,J, Reed, R. and Jones, A. (2012), *Practical Skills in Biology*. London: Pearson

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE:	NORD1080	MODULE TITLE:	Animal Health and Disease

CREDITS: 20	FHEQ Level: 4	JACS CODE: D320

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Y

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
The module will review regional, national and global factors affecting the health of wild and domestic species, disease transmission, causal agents and the interventions required to manage the risk of contracting and spreading disease. Students will further their understanding of the mechanisms of disease and immunity and how these can be adjusted and manipulated to maintain animal health.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	30 %	C1 (Coursework)	70 %	P1 (Practical)	% or Pass/Fail (delete as appropriate)
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
To highlight the relationship between the environment and disease, including husbandry and animal management techniques used, and the mechanisms host animal immune systems engage. To broaden appreciation of the complexity of the disease process and the relationship between the host and the infective agent, investigating preventative and control methods.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Explain the effect of husbandry on animal health, demonstrating an awareness of causative agents and routes of transmission for disease, identifying methods for control and prevention in the context of husbandry.
2. Describe and explain the role of the immune system in animals
3. Demonstrate a broad understanding of the nature and process of disease, and the relationship between the host and the infective agent.

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	09/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 2 (SP)

Additional notes (for office use only):

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE: 112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT

Animal husbandry and other causal factors influencing health and disease will be investigated, alongside the transmission, control and prevention of disease. The role of the immune system will be investigated for a range of wild and domestic species, and how this impact upon the transmission, control and prevention of disease. The relationship between host and agent will be reviewed to enable students to identify and evaluate improvements to animal health and welfare.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	38	Lectures will focus on the core understanding of disease, methods of transmission, and preventative and control mechanisms
Practical's	10	Laboratory work will further develop students understanding, but will also focus on the spread of disease, and the conditions which enable this.
Private study/assignments	152	Students will be expect to read widely around the concepts discussed in class, and to spend their own time developing practical techniques as well as data analysis and understanding via the use of the VLE.
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E1	Examination	100% Total = 100%	LO1, 2, 3
	T_		% Total = 100%	
Coursework	C1	Academic Poster	100% Total = 100%	LO2,3
Practical	P_		% Total = 100%	

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Boden, E. (2007) *Black's Student Veterinary Dictionary.* London: A & C Black Publishers Ltd

Cooper, B. Mullineaux, E. (2011) *BSAVA Textbook of Veterinary Nursing*. Quedgeley: British Small Animal Veterinary Association

Day, M. Schultz, R. (2014) *Veterinary Immunology: Principles and Practice,* Second Edition. Boca Raton: CRC Press

Ettinger, S. (2005). *Textbook of veterinary internal medicine: diseases of dog and cat*. Elsevier: WB Saunders.

Hall, A. Yates, C. (2010) *Immunology (Fundamentals of Biomedical Science).* Oxford: Oxford University Press

Botzler, R. Brown, R. (2014) *Foundations of Wildlife Diseases.* University of California Press

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE: NORD1081	MODULE TITLE: Zoological Conservation

CREDITS: 20	FHEQ Level: 4	JACS CODE: C184

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
This module focuses on the roles of zoo conservation, and how this is undertaken, as well as considering the ethical, legal and ecological factors involved. Zoo animal husbandry & behaviour is analysed in light of conservation and welfare. The module will incorporate zoological data to review breeding programmes, their coordination and their success.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	70 %	P1 (Practical)	30%
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
The module aims to develop an understanding the core zoological conservation principles to enable students to understand core concepts including conservation, ethics, legislation and in-situ and ex-situ conservation. Students understanding of the dynamic between behaviour and conservation will be reviewed so as to better comprehend the factors affecting zoo animal behaviour, and the implications of this. Students will also use data from captive breeding programmes to review the process and its effectiveness, including ethics, genetics and biodiversity.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Identify and analyse the roles of zoological conservation including legal, ethical and ecological factors
2. Demonstrate awareness of the relationship between zoo animal welfare & behaviour and conservation
3. Analyse zoo conservation data to review breeding programmes

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 1 (AU)

Additional notes (for office use only):

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE:	112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT
Zoo conservation is a key tool for the conservation of endangered species, and raising the profile of conservation issues. The module will review the purpose of zoos and how they seek to conserve and benefit endangered species, predominantly in-situ, with ex-situ conservation of habitats and species also reviewed. Research into this will enable students to develop a solid understanding of the working processes of a zoo as an organisation.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	32	Lectures will focus on ethical debates regarding the roles of modern zoos, and the suitability of these roles. The methods zoos use for improving wild captive species welfare as well as breeding programmes will also be reviewed, analysed, critiqued and developed using BIAZA accredited establishments as case studies and visits
Practical's	16	Visits to local BIAZA accredited zoos will provide a basis for applying theory to practice, as well as critiquing techniques in place.
Private study/assignments	152	Students will be expect to read widely around the concepts discussed in class, and to spend their own time developing practical techniques as well as data analysis and understanding via the use of the VLE.
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E_		% Total = 100%	
	T_		% Total = 100%	
Coursework	C1	Report	100% Total = 100%	LO2, 3
Practical	P1	Presentation	100% Total = 100%	LO1

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Hosey, G. Melfi, V. Pankhurst, S. (2013) *Zoo Animals: Behaviour, Management and Welfare.* Oxford: Oxford University Press

Kleiman, D. Thompson, K. Kirk Baer, C. (2013) *Wild Mammals in Captivity: Principles and Techniques for Zoo Management,* Second Edition. Chicago: University of Chicago Press

Maple, T. Shepherdson, D. Mellen, J. Hutchins, M. (1999*) Second Nature: Environmental Enrichment for Captive Animals*. Smithsonian Books.

Rees, P. (2011) *An Introduction to Zoo Biology and Management*. Oxford: Wiley-Blackwell

Young, R. (2003) *Environmental Enrichment for Captive Animals*. Wheathampstead: UFAW

MODULE CODE:	NORD2077	MODULE TITLE:	Practical Conservation Skills

CREDITS: 20	FHEQ Level: 5	JACS CODE: C184

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
The module aims to introduce students to the practices and principles of field studies of habitats and wildlife populations; this is to include practical sampling techniques for flora and fauna in a range of habitats, statistical analysis of this data, and evaluation of the results.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	50%	P1 (Practical)	50% Pass/Fail
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
The module aims to enable students to develop the ability to identify flora and fauna correctly; select appropriate sampling techniques and risk assess them, carry out those techniques correctly and produce a habitat survey report, including an evaluation. There will also be the intention where possible to review the data in relation to previous studies of the same habitat, on Lundy Island, Exmoor National Park, AONB or North Devon Biosphere.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Identify a range of flora and fauna correctly
2. Understand and apply survey techniques, making assessments of the risks, and collect data in groups effectively.
3. Interpret habitat survey data
4. Make critical recommendations as a result of interpreting habitat survey data

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	All year

Additional notes (for office use only):

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE:	112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT

The module will enable students to develop a core understanding of species, their habitats and the survey techniques used to gather data. Data analysis techniques will also be taught and applied, with students making recommendations and predictions regarding the wildlife populations they have surveyed. Where possible, this will form part of longer term surveys carried out at a range of sites locally.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	10	Lectures will include an introduction to the reasons behind field work, identification workshops, risk assessments, data collection and data analysis. Journals will also be reviewed and critiqued
Practical's	38	Field work, habitat management and habitat sampling techniques
Private study/assignments	152	Students will be expected to reflect upon their own experiences using the tools given to them during the formal delivery of the lectures
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E		0% Total = 100%	
	T		% Total = 100%	
Coursework	C1	Field report	100% Total = 100%	LO3, 4
Practical	P1	Field Survey	100% Total = 100%	LO1, 2

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Ausden, M. (2007) *Habitat management for conservation: a handbook of techniques*. Oxford: Oxford University Press.

Begon, M. Townsend, C. Harper, J. (2006) *Ecology: From Individuals to Ecosystems*. 4th Edition. Oxford: Blackwell.

Sutherland, W. (2006) *Ecological Census Techniques: A Handbook*. Cambridge: Cambridge University Press

Wheater, C. Bell, J. Cook, P. (2011) *Practical Field Ecology.* Oxford: Wiley-Blackwell

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE:	NORD2078	MODULE TITLE:	Marine Animal Biology & Conservation

CREDITS: 20	FHEQ Level: 5	JACS CODE: C184

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
The module focuses on the variety of marine fauna, their biology and their conservation. The unit will identify the evolutionary pathways and classifications of marine animals, as well as current conservations threats and conservation measures which have been undertaken to protect and enhance habitats and species.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*					
WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	100 %	P1 (Practical)	Pass/Fail
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	Pass/fail				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
The module aims to develop an understanding and appreciation of the threats to habitats and species, and the action that is and can be taken to prevent and reduce harm and promote the ecosystems. The module will also review the evolution of marine animals and their classification, with correlations drawn between biology and conservation need.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Identify classification of marine fauna & flora
2. Analyse the impact of threats to ecosystems to the evolutionary adaptations of marine mammals
3. Review national and international conservation measures to protect marine ecosystems
4. Demonstrate an awareness of the political and economic factors affecting marine conservation measures

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships

DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 1 (AU)

Additional notes (for office use only):

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT
Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE:	112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT
The study of marine habitats provides a variety of different challenges to the study of terrestrial or freshwater species, this unit will enable students to explore these challenges in light of the biology of those species, specific threats to their habitats and the measures that are being taken nationally and globally to combat these threats. The Geo-political nature of protecting marine species will also be reviewed to highlight the impact of globalisation upon marine conservation.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	40	Evolutionary adaptations of marine species. Lectures will include guest speakers from local marine organisations
Practical's	20	Will embed flora and fauna identification, as well as practical field work.
Private study/assignments	140	Students will be expected to reflect upon their own experiences using the tools given to them during the formal delivery of the lectures
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E		% Total = 100%	
	T1	Identification test	Pass/fail	LO1
Coursework	C		% Total = 100%	

Practical	P1	Academic Poster	100% Total = 100%	LO2, 3, 4

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Hoelzel, A. (2002) *Marine Mammal Biology: An Evolutionary Approach*. Oxford: Wiley Blackwell

Kaiser, M. Attrill, M. Jennings, S. Thomas, D. Barnes, D. Brierley, A. Hiddink, J. Kaartokallio, H. Polunin, C. Raffaelli, D. (2011) *Marine Ecology: Processes, Systems, and Impacts*. Oxford: Oxford University Press.

Levinton, J. (2010) *Marine Biology: Function, Biodiversity, Ecology.* Oxford: Oxford University Press.

Thomas, D. Bowers, D. (2012) *Introducing Oceanography.* Edinburgh: Dunedin Academic Press.

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE:	PETR2101	MODULE TITLE:	Behavioural Ecology

CREDITS: 20	FHEQ Level: 5	JACS CODE: C180

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
The module focuses on the evolution of animal behaviours, including adaptation, communication, feeding behaviour, mating behaviours, coping with predators adaptively, and reproductive tactics. Ecology of social behaviours is also covered. Where possible the lessons will involve observing wild animal behaviour to apply knowledge.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	100 %	P1 (Practical)	% or Pass/Fail (delete as appropriate)
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
The module aims to develop an understanding and appreciation of the impact of a variety of factors on the evolution of a range of species. A variety of animal behavioural strategies will be reviewed as outlined in the module descriptor, and their evolution pathways and factors will be examined.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Evidence an understanding of the evolution of animal behaviours
2. Describe adaptive strategies that enable survival and reproduction
3. Review the costs and benefits of behaviour

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 2 (SP)

Additional notes (for office use only):

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE:	112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT

The module aims to develop an understanding and appreciation of the impact of a variety of factors on the evolution of a range of species. A variety of animal behavioural strategies will be reviewed as outlined in the module descriptor, and their evolution pathways and factors will be examined. Students will review a variety of case studies and have the opportunity to apply this during field trips.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	38	A range of lectures and activities will be arranged. Lectures will also include time for assessment workshops and 1:1 report guidance.
Practical's	10	Field trips to observe animal behaviour. Student presentations which will be formatively assessed.
Private study/assignments	152	Students will be expected to reflect upon their own experiences using the tools given to them during the formal delivery of the lectures
Total	<u>200</u>	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E_		% Total = 100%	
	T_		% Total = 100%	
Coursework	C1	Report	100% Total = 100%	LO1, 2, 3
Practical	P_		% Total = 100%	

Updated by:	Date:	Approved by:	Date:

Leitza Gorman	28/09/2023	Leitza Gorman	28/09/2023

Recommended Texts and Sources:

Alcock, J (2013) *Animal Behaviour: An Evolutionary Approach.* Tenth Edition, Sunderland: Sinauer

Barnard, C. (2003) *Animal Behaviour: Mechanism, Development, Function & Evolution*. London: Prentice Hall.

Davies, N. Krebs, J. West, S. (2012) *An Introduction to Behavioural Ecology*. Fourth Edition. Oxford: Blackwell

Dugatkin, L. (2013) *Principles of Animal Behaviour*. New York: W. W. Norton & Company

Futuyma, D. (2009) *Evolution*, Sunderland: Sinauer Associates

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty Quality Procedures for approval and issue of new module code.*

MODULE CODE:	NORD2080	MODULE TITLE:	Applied Zoological Science

CREDITS: 20	FHEQ Level: 5	JACS CODE: C300

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
Understanding the factors that affect wild captive species allows us to improve the welfare of these species. Students will develop their understanding of the physiological and behavioural needs of animals, subsequent challenges within a zoo environment, and the suitability of captive environments. Students will analyse the effectiveness of enrichment or other husbandry strategies used when keeping wild captive species.

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	%	C1 (Coursework)	50%	P1 (Practical)	50%
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked:

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
To develop a broad understanding of the knowledge base which underpins animal physiological and behavioural needs and challenges within a zoo environment. The suitability of the animal environment and the effectiveness of enrichment and other captive husbandry strategies will be explored and evaluated.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Identify key body systems & behavioural repertoires of wild captive species
2. Analyse, synthesise and summarise critically correlations between physiology, behaviour and husbandry techniques
3. Research and identify possible alterations to captive management strategies
4. Collect and analyse data for species in a zoological setting

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 2 (SP)

	Additional notes (for office use only):

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE:	112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT
To be able to effectively assess wild captive species welfare they must first understand the physical and behavioural needs, which will be addressed for a range of commonly kept zoo animals. Students will then draw comparison with these needs and the animal management techniques used within zoos. Students will research and identify possible alterations to captive management strategies, implement these changes in agreement with a zoological park after a period of agreement, and collect appropriate data to be able to form a judgement on the value of the change.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	40	Lectures will include enclosure design, body systems and behaviour of species and their captive requirements.
Practical's	50	Practical's will enable students to review a range of captive management strategies. There will also be the opportunity to gather and analyse data
Private study/assignments	110	
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E		% Total = 100%	
	T		% Total = 100%	
Coursework	C1	Report	100% Total = 100%	LO2, 3, 4
Practical	P1	Presentation	100%	LO1

			Total = 100%	

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman	Date: 28/09/2023

Recommended Texts and Sources:

Fa, J. Funk, S. O'Connell, D. (2011) *Zoo Conservation Biology*. Cambridge: Cambridge University Press.

Hosey, G. Melfi, V. Pankhurst, S. (2013) *Zoo Animals: Behaviour, Management and Welfare*. Oxford: Oxford University Press

Kleiman, D. Thompson, K. Kirk Baer, C. (2013) *Wild Mammals in Captivity: Principles and Techniques for Zoo Management*, Second Edition. Chicago: University of Chicago Press

Maple, T. Shepherdson, D. Mellen, J. Hutchins, M. (1999) *Second Nature: Environmental Enrichment for Captive Animals.* Smithsonian Books.

Martin, P. Bateson, P. (2007) *Measuring Behaviour: An Introductory Guide*. Cambridge: Cambridge University Press.

Rees, P. (2011) *An Introduction to Zoo Biology and Management*. Oxford: Wiley-Blackwell

MODULE CODE:	NORD2082	MODULE TITLE:	Wildlife Management & Rehabilitation

CREDITS: 20	FHEQ Level: 5	JACS CODE: D446

PRE-REQUISITES: None	CO-REQUISITES: None	COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR: *(max 425 characters)*
The module will provide an understanding of the complex and varied factors affecting wildlife, including reasons affecting resources, their funding and their management and how these issues impact upon the species themselves. Students will apply their resource management knowledge to a range of habitats. Ecological, legal & ethical rehabilitation factors will also be considered

ELEMENTS OF ASSESSMENT *Use HESA KIS definitions]*

WRITTEN EXAMINATION		COURSEWORK		PRACTICAL	
E1 (Examination)	20 %	C1 (Coursework)	80 %	P1 (Practical)	% or Pass/Fail (delete as appropriate)
E2 (Clinical Examination)	%	A1 (Generic Assessment)	%		
T1 (Test)	%				

SUBJECT ASSESSMENT PANEL Group to which module should be linked: Science

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
The module aims to enable students to analyse a range of factors affecting resource management and wildlife rehabilitation. Students will then have the opportunity to both manage a resource and the rehabilitation of species in conjunction with local partners such as The National Trust, Lundy Island (Landmark Trust), Exmoor & Dartmoor National Parks and Braunton Burrows Biosphere Reserve. Wherever possible students will have the opportunity to engage in practical application of their knowledge.

ASSESSED LEARNING OUTCOMES: (additional guidance below)
At the end of the module the learner will be expected to be able to:
1. Identify factors affecting the management of exploited wildlife species
2. Describe the ecology of exploited wildlife species
3. Plan the effective rehabilitation, release and management of a wildlife species
4. Identify factors affecting wildlife rehabilitation

DATE OF APPROVAL:	04/2015	FACULTY/OFFICE:	Academic Partnerships
DATE OF IMPLEMENTATION:	04/2015	SCHOOL/PARTNER:	Petroc
DATE(S) OF APPROVED CHANGE:	N/A	TERM/SEMESTER:	Semester 1 (AU)

Additional notes (for office use only):

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must e considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/2024	NATIONAL COST CENTRE:	112

MODULE LEADER: Leitza Gorman	OTHER MODULE STAFF:

SUMMARY of MODULE CONTENT
The module aims to enable students to analyse a range of factors affecting resource management and wildlife rehabilitation. Students will then have the opportunity to both manage a resource and the rehabilitation of species in conjunction with local partners such as The National Trust, Lundy Island (Landmark Trust), Exmoor & Dartmoor National Parks and Braunton Burrows Biosphere Reserve. Wherever possible students will have the opportunity to engage in real meaningful practical application of their knowledge.

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*

Scheduled Activities	Hours	Comments/Additional Information
Lectures	50	Examine interactions between the biology of wildlife and the divergent goals of people involved in hunting, fishing, gathering, and culling wildlife. Sustainable exploitation is tied to the study of population dynamics, with direct links to reproductive rates, life histories, behavior, and ecology Factors affecting wildlife rehab, local, national, international, release site, season, care of species during rehabilitation
Practical's	10	Plan and carry out the management of wildlife resource, and plan the rehabilitation of species.
Private study/assignments	140	
Total	200	(NB: 1 credit = 10 hours or learning; 10 credits = 100 hours, etc)

Category	Element	Component Name	Component Weighting	Comments include links to learning objectives
Written exam	E1	Short & long answer questions	100% Total = 100%	LO1
	T_		% Total = 100%	
Coursework	C1	Rehabilitation report	100% Total = 100%	LO2, 3, 4
Practical	P_		%	

			Total = 100%	

Updated by: Leitza Gorman	Date: 28/09/2023	Approved by: Leitza Gorman		Date: 28/09/2023
Recommended Texts and Sources:				

Alexander, M. (2007) Management Planning for Nature Conservation: A Theoretical Basis & Practical Guide. London: Springer.

Ausden, M. (2007) Habitat Management for Conservation: A Handbook of Techniques. Oxford: Oxford University Press Stoker (2005) *Practical Wildlife Care*. Oxford: Wiley-Blackwell

Fryxell, J. Sinclair, A. Caughley, G. (2014) *Wildlife Ecology, Conservation and management.* Oxford: Wiley-Blackwell

Hunter, M. Gibbs, J. (2006) *Fundamentals of Conservation Biology*. Oxford: Wiley-Blackwell

UNIVERSITY OF PLYMOUTH MODULE RECORD

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty/AP Quality Procedures for approval and issue of new module code.*

MODULE CODE: PETR2171 **MODULE TITLE: Experimental Design & Analysis**
CREDITS: 20 **FHEQ LEVEL:** 5 **HECOS CODE(S) [max 3]: 100962**
PRE-REQUISITES: None **CO-REQUISITES: None** **COMPENSATABLE: N**
SHORT MODULE DESCRIPTOR: *(max 425 characters)*

This module focuses on core skills and techniques in field studies and data analysis essential to animal conservation. Practical work needs to be performed safely and efficiently within an appropriate experimental design, results described and analysed competently, and outcomes effectively presented. Students complete a chosen research project and a literature review of a topic addressing wider issues.

ELEMENTS OF ASSESSMENT – *see [Definitions of Elements and Components of Assessment](#)*					
E1 (Examination)		**C1** (Coursework)	70%	**P1** (Practical)	
T1 (Test)	30%	**O1** (online open book assessment)			

SUBJECT ASSESSMENT PANEL to which module should be linked: Science

Professional body minimum pass mark requirement: None

MODULE AIMS:

To develop competence in the design and execution of a biology-related research study, data gathering and interpretation, and an ability to communicate their findings by means of oral and written reports. To encourage students to carry out self-directed study of current issues and concepts relevant to their degree programme.

ASSESSED LEARNING OUTCOMES: (additional guidance below; please refer to the Programme Specification for relevant Programme Intended Learning Outcomes.

At the end of the module the learner will be expected to be able to:

Assessed Module Learning Outcomes (ALOs)	Programme Intended Learning Outcomes (PILOs) contributed to
1. As part of a research study, design and execute the collection of data via any combination of laboratory work, fieldwork, questionnaire and reference to literature.	C1, T1, T3, P2, P3, P4
2. Analyse, interpret and critically evaluate data in the context of contemporary subject-specific practice and literature.	K3, C1, C2, T1
3. Apply relevant data analysis methods, using appropriate software, and techniques	C1, C2, T1, T3, P2
4. Identify good practices and relevant safety codes and their application to research.	K3, C3, T3

DATE OF APPROVAL: April 2022	**FACULTY/OFFICE: Academic Partnerships**
DATE OF IMPLEMENTATION: September 2023	**SCHOOL/PARTNER: Petroc**
DATE(S) OF APPROVED CHANGE: XX/XX/XXXX	**SEMESTER: AY**

MODE OF DELIVERY: campus taught/blended learning/distance learning (please specify)	Taught on campus.

Notes:

Additional Guidance for Learning Outcomes:

To ensure that the module is pitched at the right level check your intended learning outcomes against the following nationally agreed standards

- Office for Students, Sector-recognised Standards
- Office for Students, Quality and Standards Conditions of Registration
- Subject benchmark statements
- Professional, regulatory and statutory (PSRB) accreditation requirements (where necessary e.g. health and social care, medicine, engineering, psychology, architecture, teaching, law)

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must be considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be published on the website as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2023/24   **NATIONAL COST CENTRE: 112**
MODULE LEADER: Leitza Gorman   **OTHER MODULE STAFF:**

Summary of Module Content
Highly varied, but must include: consideration of experimental or sampling design and execution; data gathering, analysis and interpretation, literature search and review; report writing; science communication.

SUMMARY OF TEACHING AND LEARNING		
Scheduled Activities	**Hours**	**Comments/Additional Information (briefly explain activities, including formative assessment opportunities)**
Lectures/Workshops	40	Lectures will focus on the methods of designing experiments and the approaches to be taken, as well as data analysis techniques.
Research Project	20	Students will outline proposals for experiment, then have "supervisor" to guide through the process, this will be in the form of group seminars and 1:1
Private study/assignments	140	To identify, gather and analyse data, and conduct literature review around this.
Total	**200**	**(NB: 1 credit = 10 hours of learning; 10 credits = 100 hours, etc.)**

SUMMATIVE ASSESSMENT

Element Category	Component Name & associated ALO	Component Weighting
Test	T1 ALO3	100%
Coursework	C1 ALO1, ALO2, ALO4	100%

REFERRAL ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework (in lieu of the original assessment)	C1 Referral ALO3	100%
Coursework	C1 ALO1, ALO2, ALO4	100%

To be completed when presented for Minor Change approval and/or annually updated	
Updated by: Leitza Gorman Date: 28/09/2023	**Approved by**: Leitza Gorman Date: 28/09/2023