

## City College Norwich

Course Title	Zoology, UEA BSc (Hons)
Awarding Body	University of East Anglia
Level of Award	Undergraduate
Professional, Statutory and Regulatory Bodies Recognition	
Credit Structure	360 Credits Level 4: 120 Credits Level 5: 120 Credits Level 6: 120 Credits
Mode of Attendance	Full Time
Standard Length of Course	3 Years
Intended Award	BSc (Hons)
Fall-back Awards	Unclassified Degree (BA) – 300 Credits Diploma of Higher Education (Dip HE) – 240 Credits Certificate of Higher Education (Cert HE) - 240 Credits
Entry Requirements	96 UCAS Tariff Points A minimum of GCSE Maths and English (preferred) grade 4/C or above, or National Literacy and Numeracy tests at Level 2 or 3 Access to HE Diplomas at Pass Level with suitable science or land-based credits English as a second language students must demonstrate attainment of IELTS at level 6.0 Open University credits in lieu of A Levels are accepted
Delivering Institution(s)	Easton College
Easton Course Code	F0072
UCAS Code	C800

Course Structure

Level 4 - Year 1	Module Credit Value																		
<p><b>Diversity and Evolution</b></p> <p>This module provides you with a broad outlook of both the biological and the paleontological aspects of evolution, and so will be particularly rewarding to students with an interest in animal, earth or environmental sciences.</p> <p>In particular, the module demonstrates how small genetic changes within populations (microevolution) can occur both through natural selection (including sexual selection) and as a consequence of other effects, and how such processes can lead to adaptive and other differences between populations.</p> <p>You will consider how new species can arise; how evolutionary relationships are reconstructed; and how evolutionary changes in the genetic controls on development – and variation in the rates of speciation and of extinction – can lead to large-scale evolutionary patterns (macroevolution). Further, you will identify how humans have been (and are) affecting the evolution both of themselves and other contemporary organisms.</p> <p>There are an increasing number of species moving towards extinction due to a range of factors e.g. climate change, loss of habitat due to human population growth, and resource removal. Habitat is lost due to a variety of factors including urbanisation, agriculture and pollution, while individual species are treated as resources and exploited for food, medicines, pets and scientific research.</p> <p>If we are to maintain the Planet’s biodiversity species conservation in situ must be a priority. Where species are already on the brink of extinction captive breeding programmes are often viewed as the only hope of maintaining and enhancing wild populations. You will explore the issues surrounding captive breeding programmes and evaluate such programmes in relation to their application.</p> <p><u>Assessment Details:</u></p> <table border="1" data-bbox="193 1440 1390 1872"> <thead> <tr> <th></th> <th>Type</th> <th>% Weighting</th> <th>Word Count/ Exam Length</th> <th>Learning Outcomes Coverage</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Poster</td> <td>30</td> <td>800 words</td> <td>1</td> <td></td> </tr> <tr> <td>2.</td> <td>Essay</td> <td>70</td> <td>2000 words</td> <td>2 and 3</td> <td>Exploration of the animal groups and discussion of problems facing chosen species (scope to be provided in assessment brief)</td> </tr> </tbody> </table>		Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments	1.	Poster	30	800 words	1		2.	Essay	70	2000 words	2 and 3	Exploration of the animal groups and discussion of problems facing chosen species (scope to be provided in assessment brief)	<p><b>20</b></p>
	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments														
1.	Poster	30	800 words	1															
2.	Essay	70	2000 words	2 and 3	Exploration of the animal groups and discussion of problems facing chosen species (scope to be provided in assessment brief)														

**Professional and Academic Skills**

Professional and Academic Skills is a core module to all Higher Education programmes at Easton and Otley College. This is a key module to aid your success in programme of study.

This module aims -

- to provide a framework of academic skills at undergraduate level
- to promote your recognition of the value of research, design of research, analysis (including statistics) and reporting in the context of your programme specialism
- to aid in the identification and development of a developmental approach to learning and to the professional skills required for employment

Having completed this module, you should be able -

- to use a range of academic approached and techniques
- to reflect on your personal performance and development of scholarly activity
- to apply appropriate judgement in selecting and analysing academic sources and data
- to communicate effectively with peers, assessors and wider audiences in a variety of media
- to apply the Harvard Referencing System correctly and consistently in work products
- to understand the professional standards for graduate employment your industry/career path

Whilst delivery and the learning outcomes are generic the content and output of your work will reflect to programme specialism you are studying towards.

**Assessment Details:**

	Type	Weighting %	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	E – Portfolio section 1	35	No limit	1 & 2	Section 1 Academic Techniques Styles of academic work – to include a range of methods (depending on relevance to programme of study) such as – Plans, Literature Review, Essay, Case Study, Presentation, Poster (academic), Poster (informational), Articles, Diagrams, Reports, Experimental Reports, Use of Harvard Referencing, Reflective Writing
2.	E- Portfolio section 2	35		1	Section 2 Research and Analysis Types of research and analysis – to include (depending on relevance to programme of study)

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					such as –Samples of relevant subject specific information, Validity and Reliability of sources, Primary and Secondary data examples, Data description and interpretation exercises, Action research outline, Questionnaire – developed using a range of question types/styles	
3.	E- Portfolio section 3	30		2	Section 3 – Professional Development Swot analysis, Emotional intelligence, Belbin’s team roles, Industry skills, Soft skills development, Personal development reflection, CV, ICT development	
<p><b>Animal Anatomy and Physiology</b></p> <p>Anatomy and Physiology of animals is key to understanding, caring for and managing animals in either a production, pet, performance or zoological context. As such this module introduces you to the integration and control of all major organs systems (including the endocrine, nervous, musculoskeletal, digestive, cardiovascular, respiratory, renal and immune) studying from a cellular level to gross anatomy and normal physiology. Additionally you will examine blood, cellular communication and the principles of thermoregulation and link anatomy and physiology together to understand how bodies work and maintain homeostasis.</p> <p>This modules aims –</p> <ul style="list-style-type: none"> <li>• To introduce you to cells, tissues, organs and systems</li> <li>• To identify the interrelationships between systems</li> <li>• To examine a range of animal species and note key differences/similarities</li> </ul> <p>Having completed this modules you should be able to –</p> <ul style="list-style-type: none"> <li>• To identify important anatomical and physiological features in organs</li> <li>• To relate anatomy to physiology and habitats</li> <li>• To communicate scientific information in a range of ways</li> </ul> <p>Whilst delivery and the learning outcomes are often generic the content and output of your work will reflect to programme specialism you are studying towards.</p>						<b>20</b>

**Principles of Biology and Genetics**

This module provides you with the essential background knowledge in cellular and molecular biology with an emphasis on genetics and evolution. You will become familiar with cellular structures and functions and the classification of living organisms.

The module aims to develop your knowledge and understanding of plant and animal physiology alongside with the homeostatic processes that are essential in ensuring the survival of the organism in constantly changing environments.

The module introduces you to the mechanisms of heredity including cell division, sex determination and the laws of inheritance.

You will also examine the processes which drive evolution, the concepts of natural selection and events which upset the population genetics including genetic drifts and founder effect.

This module aims to introduce you to, and develop, your observational and practical skills using light microscopy, breeding *Drosophila melanogaster* and using molecular techniques such as electrophoresis. These practical activities will improve your understanding and practical skills in biological science, the fundamental processes in living organisms and of contemporary scientific technologies.

**Assessment Details:**

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Summary of Assessment Plan

	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Essay	50	2000 words	1 and 2	
2.	Examination	50	90 mins	3 and 4	A range of short and long answer questions
Formative Assessment					
VLE quizzes VLE forum – discussion points Mock examination with group and formative feedback					

**British Wildlife, Surveys and Identification**

Habitat management is an essential part of maintaining global biodiversity. British habitats have been shaped by hundreds of years of human intervention leading to a diversity of habitat types unusual for such a small land area. Practical site management requires a good knowledge of the range of appropriate management techniques available for each habitat as well as a sound base in ecological principles. If the multifunctional nature of land in the British countryside is to be conserved then a balance must be found between conflicting land users.

This module aims provides you with the skills and knowledge to identify a range of British wildlife and habitat types. This will include the recognition of dominant and characteristic

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vegetation as well as knowledge of significant plant and animal **species found within each** habitat. You will develop an understanding of the abiotic and biotic relationships that determine the nature and diversity of each habitat. Adaptation of species to their given habitat will also be explored.

The module develops your understanding about the principles of the management of each habitat and its inhabitants. This includes a range of available practices for each habitat, and an exploration of assumptions and approaches that may determine the choice of technique for individual sites. You will develop the ability to plan and carry out a range of biological survey techniques, evaluate and interpret survey results, and to integrate survey products into the plans and policies that required them.

On completion of this module, you should have a broad understanding of multifunctional habitat management in Britain, the principles of which may be applied in other regions, and other countries.

**Assessment Details:**

Summary of Assessment Plan					
	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Seminar presentation	50	20 mins	3 and 4	With additional time for questions
2.	Portfolio	50	unlimited	1 and 2	Practical portfolio of surveys, plant and animal identification
Formative Assessments					
Flora and Fauna identification tests Site visit reports/reviews Small presentations in sessions to build presentation skills					

**Principles of Environmental Science**

Environmental systems underpin the ecology of life on Earth, providing the physical resources to maintain the flora and fauna that a growing human population relies on. Each natural system is intrinsically linked and balanced but the exploitation of these systems and their resources has led to increasing concerns for the future well-being of a growing global population and the Earth's ecosystems.

Ecology is essential to our understanding of how to manage the land, its' resources and biodiversity. Land use, policy and practice has often proved disastrous where there has been a lack of understanding of the way populations and ecosystems function at both large and small scales. This has resulted in declines in biodiversity and soil productivity.

This module aims to provide you with a broad understanding of the Earth's natural system and an underpinning understanding of soil and water resources is essential to the sustainable management of the local, national and global environment.

You will explore and examine geographical climate patterns and the impact that climate change is having on global populations, ecosystem services, and the policy decisions used in mitigation.

The module allows you to learn fundamental ecological theories in terms of the way that individuals, populations and species grow, interact and are distributed. The way in which energy is transferred through ecosystems and impacts on the length of food chains and numbers of individuals at varying trophic levels will be considered and it will further review the manner in which ecosystems alter with time and the influence of living organisms on successional processes.

You will also have the opportunity to build practical skills in assessing environmental systems and the analytical skills to discuss the complex issues that influence resource use. Furthermore, an understanding of these principles will be key to help graduates towards following a more sustainable path in the development of policies, management plans and personal choice.

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**Assessment Details:**

Summary of Assessment Plan					
	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Report	50	1500	3 and 4	
2.	Examination	50	90 mins	1 and 2	Range of short and long answers questions
Formative Assessments					
Draft report – 500 summary/report plan – could be presented to group or discussed in peer groups					
Mock Examination					

Level 5 – Year 2				Module Credit Value															
<p><b>Research Methods</b></p> <p>The planning and execution of meaningful research in a specified area of study is important for those that wish to pursue a career in research, development or strategic thinking.</p> <p>This module aims –</p> <ul style="list-style-type: none"> <li>to build on concepts of research from Level 4 introductions</li> <li>to explore qualitative and quantitative methodologies with a view to validity and reliability</li> <li>to aid in the selection and design and implementation effective research methodologies</li> </ul> <p>Having completed this module, you should be able –</p> <ul style="list-style-type: none"> <li>to appraise research methodologies and apply them to situations/projects</li> <li>to formulate project plans</li> <li>to analyse risk factors within research activities and plan for this to ensure Research Ethics are followed</li> <li>to utilise a range of analytical methods to interpret data</li> </ul> <p>Whilst delivery and the learning outcomes are generic the content and output of your work will reflect the programme specialism you are studying towards.</p> <p><b><u>Assessment Details:</u></b></p> <table border="1"> <thead> <tr> <th>Type</th> <th>% Weighting</th> <th>Word Count/ Exam Length</th> <th>Learning Outcomes Coverage</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>Proposal</td> <td>35</td> <td>800 words</td> <td>1</td> <td>Research proposal for a pilot/small scale research project – utilising proposal template To include- Hypotheses Justification for study Main sources of secondary research - summarised Research and Analytical Methods planned Costs Ethics paperwork Planning documentation</td> </tr> <tr> <td>Project Report</td> <td>65</td> <td>3000 words</td> <td>2</td> <td>Project Report in suitable format To include - Abstract Hypothesis Literature Review</td> </tr> </tbody> </table>				Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments	Proposal	35	800 words	1	Research proposal for a pilot/small scale research project – utilising proposal template To include- Hypotheses Justification for study Main sources of secondary research - summarised Research and Analytical Methods planned Costs Ethics paperwork Planning documentation	Project Report	65	3000 words	2	Project Report in suitable format To include - Abstract Hypothesis Literature Review	20
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				Results Discussion Conclusion (including recommendations)																									
<p><b>Behavioural Ecology</b></p> <p>This module will explore the inter-relationships between behaviour, ecology and evolution of animals and plants. Students will learn why organisms behave the way they do under particular ecological conditions and how they respond and adapt to changes in their environment. The principle models and theories in relation to behaviour and behavioural ecology will be examined, using case studies and examples to illustrate.</p> <p>Students will seek to explain the evolution of specific behavioural patterns and have the opportunity to undertake some original research in behavioural ecology in a selected species. This will involve experimental design, research, interpretation, analysis, and presentation of results.</p> <p>Through understanding key concepts of behavioural ecology students will be able to make more informed choices with regards to conservation within other subject areas such as habitat management and countryside recreation.</p> <p><b><u>Assessment Details:</u></b></p> <table border="1"> <thead> <tr> <th colspan="6">Summary of Assessment Plan</th> </tr> <tr> <th></th> <th>Type</th> <th>% Weighting</th> <th>Word Count/ Exam Length</th> <th>Learning Outcomes Coverage</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Examination</td> <td>50</td> <td>90 mins</td> <td>1 and 2</td> <td>A range of short and essay style questions</td> </tr> <tr> <td>2.</td> <td>Project Report</td> <td>50</td> <td>2000 words</td> <td>3 and 4</td> <td></td> </tr> </tbody> </table> <p>Formative Assessments</p> <p>Project proposal – draft outlining the project objectives, supporting theory/literature and methodology – may be discussed in group for peer feedback</p> <p>Mock examination</p>						Summary of Assessment Plan							Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments	1.	Examination	50	90 mins	1 and 2	A range of short and essay style questions	2.	Project Report	50	2000 words	3 and 4	
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2.	Project Report	50	2000 words	3 and 4																									
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**Global Biodiversity**

As a result of the Rio Conference, 1992, the concept of biodiversity, and its importance in maintaining a sustainable global environment, gained prominence. Since that time there has been a significant decline in global biodiversity and serious concerns that we may be facing another mass extinction. It is now of fundamental importance that humans understand the mechanisms that drive areas of high biodiversity, where these hotspots are found, what are the threats and what can be done to negate the impacts.

This module builds on earlier study (Level 4) providing you with a further and deeper understanding of the phenomenon of biodiversity, and investigates the factors that promote it and those that threaten it.

You will explore the mechanisms by which biotic diversity is generated and explores the benefits that are associated with biodiversity. You will have the chance to discuss the threats facing biodiversity on a local and global scale and will be encouraged to explore and evaluate practical conservation measures to ensure the maintenance and enhancement of biodiversity for future generations.

The modules aims to allow you to develop an appreciation of the value of biodiversity as a resource in economic and aesthetic terms from the value of an individual organism to large scale ecosystem services. It will provide you with a sound theoretical framework from which to assess the significance of local, national and international developments on the world's biodiversity.

**Assessment Details:**

Summary of Assessment Plan					
	Type	Weighting %	Word Count/ Exam	Learning Outcomes Coverage	Comments
1.	Case Study	50	2000 words	3 and 4	Utilising a biodiversity hotspot
2.	Examination	50	90 mins	1 and 2	Including essay style questions
Formative Assessments					
Site visit records and appraisals Bioblitz data collection event and display– in College water meadows and other local sites in East Anglia Mock Examination					

**Human and Animal Interactions (optional)**

The relationships between animals and humans are long standing, complex and continually evolving. The nature of our use and involvement with animals reveals much about the nature of human values and society itself. Domestication, production livestock, wildlife utilisation, working animals, sport use and pet keeping feature in societies throughout the world. Attitudes to animals vary widely, therefore an open mind, appreciation and tolerance of these differences is required.

This module aims to develop your knowledge of the historic and changing modern roles of animals in human society. You will be encouraged to analyse and appreciate the factors that influence human attitudes towards animals and the status of and roles animals play in different human societies and cultures.

Within the study of this module you will explore of the influences of mythological, religious, cultural and fictional representations are likely to raise many fascinating concepts and precipitate lively discussion. You will have the opportunity to examine the issues that arise from integration and evaluate the provision of society with respect to these issues. Costs and benefits of animal - human relationships will be identified.

Human perceptions may not have any factual basis and preconceptions and prejudices of individuals or societies may be difficult to challenge effectively. Controversial issues and different stakeholder opinions will be discussed. You will have the opportunity to review the views of a range of modern philosophers and build links between theory and practical animal welfare, ethics and legislation.

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**Assessment Details:**

Summary of Assessment Plan					
	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Report	100	3000 words	1 -4	To include images, figures, tables to supplement written information
Formative Assessment					
Give a brief explanation of each formative assessment activity					
Poster – theories of domestication - peer assessed and informal lecturer feedback Seminar/presentations in groups on set subjects such as – animals in religion, use of animals in agriculture or transport, what is a pet? use of dogs in the armed forces or medicine – peer assessed, may link to report topic – delivered to other student groups or further education students					

**Health and Immunology (optional)**

Outbreaks of disease can be costly to organisations in terms of treatment, staff time and loss of income or lowering of reputation. There are legal and ethical considerations to consider when keeping animals in captivity and so the maintenance of a satisfactory standard of health in animals is an essential requirement for all those who keep or manage them. This applies to those who keep animals as pets or companions, to those who keep animals in collections, for sporting or leisure activities or in production units.

In this module you will to develop the a further understanding, building on study of anatomy and physiology at level 4, of the immune system in a variety of species across the animal kingdom including those you are likely to encounter in industry. You will examine how disease/ mediates a response to repel pathogens.

You will also examine the organs and cells involved in the defence of the body and explore immunodeficiencies and immunosuppression.

In studying this module you will explore the range of common pathogens that effect species such as farm animals, companion animals, small animals, equines and wild/exotic species. At the end of this module you should be able to identify and appraise environmental factors affecting health and the immune response and explore how risks to animal health may be control in a real life establishment.

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**Assessment Details:**

Summary of Assessment Plan					
	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Examination	60	120 mins	1 and 2	A range of question types
2.	Report	40	1800 words	3	Site visit and appraisal
Formative Assessments					
Site inspection form/template provided - visits and trips to establishments, discussion and comparison of notes in class					
Mock examination					

**Vertebrate Zoology**

Building on earlier study of evolution and the diversity of animal life on Earth this module provides an exploration of the vertebrate classes. The evolutionary history of the subphylum will be examined along with anatomical plans of the major groups of vertebrates and links made to function.

This module aims to provide you with an introduction to the origins of the vertebrate classes, to briefly outline the steps in their evolutionary history and to understand the functional aspects of their major morphological characteristics and life history features.

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Thus, the students will focus on the anatomy and physiology of vertebrates, seen from an evolutionary perspective and illustrate the diversity within the vertebrate groups when studying this subject.

Students will be able to define and discuss the essential features of the Chordates, from which the Vertebrates evolved and will briefly identify the basic feeding, respiratory and locomotory, adaptations of fish before moving on to discuss the evolution of land vertebrates via the lobe-finned fishes and early amphibians.

Students will explore the diversity of the amphibians, the evolution of the amniotic egg and contrasting water relations of amphibians and reptiles and also study the evolutionary history of birds and mammals, the rise of endothermy, their primary reproductive and locomotory adaptations.

**Assessment Details:**

Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
Anatomical Drawings/Images	35	unlimited	2	4 labelled/annotated drawing/images from a range of vertebrate dissections linked to laboratory sessions or independent lab time
Essay	65	2000 words	1 and 3	

**Invertebrate Zoology**

Building on earlier study of evolution and diversity of animal life on Earth, this module provides a more focused exploration of the invertebrate classes. The evolutionary history of the subphylum will be examined along with anatomical plans of the major groups of invertebrates and links made to function. (Given the incredible diversity of invertebrates, the module will focus on a selection of invertebrate orders to include: - Odonata, Hymenoptera, Coleoptera, Araneae and Lepidoptera).

In this module you will have the opportunity to examine the comparative biology of invertebrates in an evolutionary and phylogenetic context with an emphasis on functional morphology.

You will study topics such as introduction to invertebrate systematics, a study of systems used for locomotion, nerves and sensory perception, feeding, digestion, excretion, growth, circulation, respiration and reproduction.

**Assessment Details:**

Type	% Weighting	Anonymous Yes / No	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
Anatomical drawings/images	35	y	Unlimited	2	4 labelled/annotated drawings/images from a range of invertebrate observations linked to fieldwork and laboratory sessions.
Essay	65	y	2000 words	1 and 3	

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Level 6 – Year 3	Module Credit Value															
<p><b>Dissertation</b></p> <p>The dissertation module is an opportunity for you to display the range of skills and knowledge you have developed over the course of their undergraduate studies.</p> <p>This gives students the scope to undertake a sustained independent investigation leading to the production of an 8000-10000-word final report.</p> <p>This module aims –</p> <ul style="list-style-type: none"> <li>to demonstrate in-depth knowledge of the chosen subject, building appropriately on the work completed during the earlier years of your programme</li> <li>to demonstrate your capacity for independent study and self-directed inquiry and research</li> <li>to display an ability to identify and pursue appropriate, subject specific questions</li> <li>to show you are able reflect upon research methodologies, and to draft, revise and edit written work accordingly</li> </ul> <p>Having completed this module, you should be able -</p> <ul style="list-style-type: none"> <li>to analyse the chosen literature</li> <li>to understand and analyse relevant theoretical ideas, and to apply these ideas to a research conundrum</li> <li>to apply appropriate research, data collection and analysis and referencing correctly</li> <li>to collate and present information from research in a range of styles</li> </ul> <p>Whilst delivery and the learning outcomes are generic the content and output of your work will reflect to programme specialism you are studying towards.</p> <p><u>Assessment Details:</u></p> <table border="1" data-bbox="193 1346 1238 1774"> <thead> <tr> <th>Type</th> <th>% Weighting</th> <th>Word Count/ Exam Length</th> <th>Learning Outcomes Coverage</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>Thesis</td> <td>80</td> <td>8000-10000 words</td> <td>1-4</td> <td>Final report – handbook guidance provided</td> </tr> <tr> <td>Academic Poster</td> <td>20</td> <td>800 words</td> <td>3 and 4</td> <td>Visual summary of research (A1)</td> </tr> </tbody> </table>	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments	Thesis	80	8000-10000 words	1-4	Final report – handbook guidance provided	Academic Poster	20	800 words	3 and 4	Visual summary of research (A1)	<p><b>40</b></p>
Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments												
Thesis	80	8000-10000 words	1-4	Final report – handbook guidance provided												
Academic Poster	20	800 words	3 and 4	Visual summary of research (A1)												

**Conservation Biology (optional)**

Field conservation is a vital element of ensuring the future for Earth's flora and fauna. Sound and planned management of endangered species, both *in situ* and *ex situ* is a major part of this process.

You will assess and analyse the state of Earth's biodiversity, particularly its captive populations, not only focusing on charismatic 'flagship' species but the full range of life on the planet. Excursions to a range of collections in the UK and wider will enhance your study of this module.

The module aims to appraise you of the processes involved in breeding and managing captive endangered species and you will be encouraged to question techniques and methods identified and develop new and innovative ideas.

You will review, assess and use evidence to make suggestions for conserving flora and fauna and the work that conservation organisations locally, national and internationally have and are making towards a sustainable population. Studying this module will further develop your research, analytical and planning skills that are relevant in a range of industry roles.

**Assessment Details:**

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Summary of Assessment Plan					
	Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Report	65	2250 words	1 and 2	Review of a breeding programme for identified flora or fauna – of suitable scope
2.	Essay	35	1750 words	3	Reflective report of efficacy of selected conservation organisation or conservation programme (dependant on scope)
Formative Assessments					
Presentation – 10/15 min overview of breeding programme – peer assessment and informal feedback Conservation debate – students to identify and present verbal overview to student and expert panel- may be in liaison with local conservation groups such as Norfolk Wildlife Trust and Hawk and Owl Trust to support essay development					



**Advanced Methods and Techniques in Ecology (optional)**

The monitoring and evaluation of wild flora and fauna remains a key element of ecological practice. Techniques and technology for undertaking work in the field are constantly under development and to remain industry competent, practitioners need to stay up to date. This may be regarding recent developments in monitoring, the use of computerised applications, use of mechanical resources whilst also maintaining a sound knowledge and understanding of taxonomy.

The module aims to allow you to hone your skills in the wide field of ecology from the perspective of identifying the species of animals and plants present on selected sites of interest within East Anglia. You will focus more specifically on the most appropriate method of surveying and monitoring species on these sites and discuss how land-use changes might be mitigated by effective and imaginative planning and management.

By undertaking this module you will be able to further consider different scenarios with regard to solving a range of ecological and environmental issues.

The core of the module will be delivered by College staff with significant input from ecological consultants and practitioners in conservation organisations providing a real-life link to industry and application of theory.

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**Assessment Details:**

Summary of Assessment Plan					
	Type	Weighting %	Word Count/ Exam	Learning Outcomes Coverage	Comments
1.	Examination	40	120 mins	1 and 2	Includes identification tests
2.	Report	60	2000 words	3 and 4	Ecological report
Formative Assessments					
Mock examination, pop quizzes and online and real identification tasks					
Open class discussion/debate forum – ecological surveys					

**Contemporary Issues in Zoology**

Research continues to add to the wealth of knowledge, understanding, theories and concepts utilised in industry and the global arena. Employees in a range of careers are expected stay industry relevant and maintain an up-to-date outlook on their subject specialisms.

This module is designed to allow you to develop a wider knowledge of Zoology as a science and the issues that have shaped it and are currently affecting working practices.

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You will explore the need for the industry to undertake robust scientific study to develop new understanding and technology and to apply it practically, to good effect within working practices.

The module aims to help you revise and build upon the independent thinking, study and research skills and give you the opportunity to explore key areas of interest and development. The module will highlight and promote opportunities for you to participate and attend seminars and speakers both in house and at other institutions to aid learning, research and networking skills.

In this module you are expected to refine skills in enquiry and critical analysis of research and are expected to display this and advanced communication and personal skills in a formative seminar assessment to a select audience.

**Assessment Details:**

Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
Literature Review	60	2000 words	1	Subject of suitable scope and recent relevance selected by the student and agreed by module leader
Seminar Presentation	40	20 minutes plus questions	2 and 3	Suitable for a range of students studying animal/ecology/zoology courses from Level 3 - 6

**Animal Social Behaviour (optional)**

Animal behaviour is a popular study for biologist and zoologists providing amazing insights into the way's animals survive and reproduce within their dynamic environments. This module further focuses down into the suite of interactions that occur between two or more individual animals.

This could be animals of the same species where they form simple groups, cooperate in sexual and parenting behaviours, engage in territorial disputes, access to suitable mates or cross spaces. It may also include cross species interaction.

In this module you will examine and assess the neurobiology and endocrinology surrounding social behaviours. This builds on modules and topics from Levels 4 and 5 of your study in anatomy and physiology and behaviour.

You will have the chance to explore a range of species and their interactions in domestic, captive and wild settings underpinned by theories and research.

The module aims to allow you to explore a range of social species and further hone your knowledge and practical ability to design, undertake and analyse behaviour of animals.

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In studying this module, you will be further equipped for post graduate research or employment in the wildlife, conservation and zoology industries with skills and knowledge linking social behaviour to the successful welfare, conservation and management of social species.

**Assessment Details:**

Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
Examination	40	120 mins	1	Short answer and essay style questions –references /research permitted
Report	60	2500 words	2 and 3	Incorporates the design and execution of behavioural study utilising social groups of captives wild/exotic animals Proposal, raw data and report

**Environmental Animal Physiology (optional)**

Animals have adapted physiologically over generations to exploit opportunities and cope with problems they face within their natural environments. This module helps you explores concepts surrounding the environment, adaptation and reviews the concepts of environmental and comparative physiology in both vertebrates and invertebrates in aquatic and terrestrial habitats

This module aims –

- to review and appraise principles of adaptation and the environment
- to explore central issues in comparative physiology
- to reflect on methods animals have developed to cope with their environment

Having completed this module, you should be able –

- to appraise a range of animal adaptations to their habitats
- to reflect on how environmental extremes, affect distribution of species
- to design, propose and execute research in animal environmental physiology
- to evaluate species ability to survive in global climate change

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**Assessment Details:**

Type	% Weighting	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
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Seminar	65	30 mins	1 and 3	Seminar presentation Selected terrestrial or aquatic species from provided list Past, present and future of the species and how the environment has and could affect it.		
Experimental Report	35	2000 words	2	Experimental design, implementation and results presented in an appropriate report format Students may work in groups to design and execute experiment, however, should complete report and analysis individually		