

City College Norwich

Course Title	Animal Science and Welfare, UEA FdSc
Awarding Body	University of East Anglia
Level of Award	Undergraduate
Professional, Statutory and Regulatory Bodies Recognition	
Credit Structure	240 Credits Level 4: 120 Credits Level 5: 120 Credits
Mode of Attendance	Full-time Part-time
Standard Length of Course	Full-time: 2 Years Part-time: 4 Years
Intended Award	Foundation Degree
Fall-back Awards	Certificate of Higher Education (Cert HE): 120 credits
Entry Requirements	64 UCAS Tariff Points A minimum of GCSE Maths, English and Science (preferred) grade 4/c or above, or National Literacy and Numeracy tests at Level 2 or 3 Open University credits in lieu of A Levels Access to HE Diploma at Pass level with suitable science or land-based credits Mature candidates with life experience in professional or semi-professional work will be considered. English as a second language students must demonstrate attainment of IELTS at level 6.0
Delivering Institution(s)	Easton College
Easton Course Code	F0062 – Full-time G0026 – Part-time
UCAS Code	D300

Course Structure

Level 4			
<u>Core Animal Husbandry Skills- (EC070)</u>			
<p>The aims of the module are to: • Develop students' practical skills and techniques for a range of domestic and captive animals commonly encountered when working in the animal care industry • Enable students to investigate appropriate animal accommodation design and environments in promoting animal welfare. • Enable students to review husbandry practice for a range of captive and domestic species the maintenance of adequate animal husbandry standards is an essential requirement for all those who keep or manage animals. This applies to those who keep animals as pets or companions, to those who keep animals in collections and to those who manage populations of animals in the wild or in production units. Lectures will convey the principles of animal husbandry and management while practical sessions will allow students to develop a range of essential practical skills necessary to work with a range of animals as well as reinforce theory. Students will be encouraged to broaden their knowledge of a wide range of captive and domestic animals by participating in seminars. Students will get the opportunity to work with large and small mammals as well as domestic and exotic species. Students will be taught in the animal units at Easton & Otley College, but they will also build upon their knowledge and husbandry skills at their work placements which will include zoos, farm parks, kennels and catteries, veterinary practices, farms and pet stores.</p> <p><u>Assessment Type:</u></p>			
Assessment Type	% Wt	Comments	LO
Practical Assessment	25	Observation of competencies handling a range of animals (S2)	1
Report	25	1500 words Linked to handling observations (S2)	2
Presentation	50	15 mins (plus question time)	3 & 4
Formative	0	Practical activities continual formative feedback (verbal) S1/2 Practice presentations	1 3 & 4

Animal Anatomy and Physiology - (ASW001)

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.

Assessment Type:

Type	% Weighting	Anonymous Yes / No	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
Examination	70	yes	90 mins	1,2 & 3	Mixture of multiple choice, labelling diagrams and short answers questions
Essay	30	yes	1250	4	Reports following practical laboratory work

20 Credits

Formative Assessments

Dissections – exploration of gross anatomy in a practical context, may include dissection of limbs, organs, partial systems, different tissues (histology).

Laboratory activities – to include exploration of osmosis and diffusion, enzyme reactions, nerves.

Mock Examination – to prepare for formal examination.

For use on following programmes

- BSc (Hons) Zoology
- FdSc Animal Science and Welfare
- FdSc Equine Science and Welfare
- FdSc Agricultural Management

Fundamentals of Animal Nutrition- (EC202)

The provision of an adequate diet is fundamental to the keeping and management of production, collection and companion animals. It is therefore essential that those involved in these activities have a sound theoretical and practical knowledge of the subject to ensure the health and welfare of the animal(s) in their care.

This module focuses upon the physical and chemical properties of important biological molecules and dietary constituents and the application of this information to ration formulation. The student should develop an awareness of the dietary needs of a variety of animal species along with the range of factors that are important in the design of suitable feeding regimes. The module covers factors that affect the nutritional requirements of a range of animals. It also considers the health and welfare effects of failing to meet an animal's nutritional requirements.

This module can be contextualised to allow the student to concentrate on the range of animals that he/she is studying. It provides a sound background to the concepts used in all animal nutrition and as such should be delivered in the first year of the programme. This will ensure that the student is in a better position to benefit from other modules that cover various aspects of animal nutrition in greater depth.

Assessment Type:

Assessment Type	% Wt	Comments	LO
Examination	50	1.5hrs (S2) Range of question types/styles	1 & 2
Report	50	2000 words (S2)	3 & 4
Formative	0	Mock examination (S2) VLE based revision quiz VLE forums	1 & 2 1 & 2 3 & 4

**20
Credits**

Level 5

Human and Animal Interactions (ASW002)

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.

Assessment Type:

Type	% Weighting	Word Count/ Exam Length	Comments
Report	100	3000 words	To include images, figures, tables to supplement written information

Formative Assessment:

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.

For use on following programmes:

- BSc (Hons) Zoology
- FdSc Animal Science and Welfare

20 Credits

Health and Immunology (ASW003) –

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 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 will 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.

Assessment Type:

Type	% Weighting	Word Count/ Exam Length	Comments
Examination	60	120 mins	A range of question types
Report	40	1800 words	Site visit and appraisal

20 Credits

Formative Assessment:

Site inspection form/template provided - visits and trips to establishments, discussion and comparison of notes in class.

Mock examination.

For use on following programmes:

- BSc (Hons) Zoology
- FdSc Animal Science and Welfare

Animal Breeding and Genetics-(EC124)

The need to understand and improve the breeding of animals has become an important aspect of this industry particularly as animal welfare gains a higher profile in our society. Successful breeding requires a sound knowledge of genetics, heredity and the management of both breeding and young stock. This applies to breeders of animals in all sectors of the industry from breeders of companion animals and other pets to production animals, animal collections and wild populations.

This module is designed to develop the learner's understanding of the issues and processes involved in a successful breeding programme. It explores both the mechanics, ethics and welfare considerations of breeding, factors that effect and influence breeders and stock, reproductive strategies and technological advances used in animal reproduction.

Learner's will to develop an understanding of how and why genetics and heredity influence breeding programmes and bloodlines in different animals. They will explore ethics, welfare and management of breeding and young stock in order to optimise production, fix type and ensure health and welfare of the animals bred.

The module with also touch upon the ethical and legislative elements (including Animal Welfare law) of breeding animals and explores how the technological world has and will influence reproductive potential.

Assessment Details:

Assessment Type	% Wt	Comments
Report	<u>50</u>	
Examination	<u>50</u>	

20 Credits

Zoo Animal Management and Welfare- (A SW004)

This specialist module will appeal to students who work, or have an interest in, the animal collections or zoological and conservation societies. Students may be working in zoos, safari parks, aquaria, bird sanctuaries and other exotic animal collections and wish to enhance their knowledge and skill set.

In this module emphasis is placed on your study of current zoo husbandry techniques, modern enclosure design, good management to promote high welfare standards, and co-ordination of breeding programmes for endangered species.

In undertaking the module you will examine the management of health and welfare, nutrition and breeding programmes for a range of zoo species. The scope of your study will also encompass key topics such as handling, welfare, behaviour, training, record keeping, enclosure design, legislation and the global community in a zoo context.

The module aims to provide you with the knowledge and skills you would require for work in the zoo industry, specifically managing captive species. The contents and assessment will enable you to evaluate current husbandry and management techniques within a zoo setting and to design and evaluate exhibits for a variety of zoo kept species.

Assessment Details:

Assessment Type	% Wt	Comments
Zoo Brochure	40	Promotional material to highlight the evolution of zoos or a chosen collection and their history, development and conservation efforts (in and ex situ)
Group Seminar	60	Appraisal of selected zoological collection - may select 2 contrasting exhibits and examine the care and management, exhibit/enclosure design, training, enrichment, nutrition and health care in conjunction with welfare standards and legislation

20 Credits

Animal Behaviour and Training (EC183)

The study and understanding of animal behaviour is essential, not only to increase knowledge and fully appreciate the complexity of species' lifestyles, but also in respect of appropriate species management. It is equally applicable to pet species, production livestock, captive exotics and wildlife. Lack of awareness or inaccurate interpretation of animal behaviour can lead to welfare issues affecting both physical and mental well-being, reduced productivity and hence economic consequences, inadequate conservation strategies and/or increased risks to the health and safety of proximate personnel and/or other animals.

This module is designed to provide learners with a sound understanding of the evolving processes of ethology, including the historical basis of animal study and influential animal behaviourists, to the more modern approach including the relevance of fieldwork. Controls of behaviour will be explored alongside the significance of behaviour on individual success and species' survival.

Learning theories will be discussed, with species' examples used as illustration. Animal behaviours will be investigated a range of situations, including communication, social, feeding, and reproductive behaviours and survival strategies. The management of animals in terms of facilitating full expression of their natural behavioural repertoire and the benefits there of will be discussed, and the practicalities that may prevent this will be considered. The development, display and implications of aberrant behaviours will also be reviewed.

Students will be required to consider how understanding of learning strategies and behaviours, when applied in practical situations, can affect how successfully animals are trained. The study of animal psychology and the higher concepts of intelligence, consciousness and trainability attract conflicting opinions. These controversial issues and their current study will be discussed in depth. Students will undertake training with a variety of animals to refine their skills in effective training to set objectives.

Assessment Type:

Assessment Type	% Wt	Comments
Exam	65%	2 hours (S1)
Presentation	35%	15 minutes
Formative	0	Mock examination VLE quiz training assessments- peer reviewed

20 Credits

Animal Legislation, Ethics and Welfare – (EC186)

The Animal Science and Welfare industry has to conform to a wide range of local, national and international legislation. Ethics, moral philosophy and human values lie at the root of the creation of law and employees in this sector require a sound understanding of the history and sources of law, legislative procedures and legal systems of the UK and those instigated via the EU. Consideration of the varying perspectives and corresponding legislation applied in a range of different situations is an integral part of the module and should provide significant controversial debate, helping learners to understand the impact of legislation on animal welfare.

Knowledge of legislation, its practical application and its impact on welfare is essential in the planning, establishment, management, monitoring and on-going development of any animal-related business.

Learners will be required to explore the relationships between legislation and ethics, especially in recent times where the industry is advancing rapidly both technologically and scientifically.

Ethical issues of animal use such as genetic engineering, reproductive technology, medical research, public health, food safety, animal utilisation and field sports usually provoke strong, conflicting and often emotive viewpoints. An understanding of how individuals, organisations and societies develop codes of ethics will be explored. Learners will be expected to develop and apply understanding of legislation in the context of practical situations to further encourage high standards of animal welfare.

Assessment Type:

Assessment Type	% Wt	Comments
Debate	50%	Groups allocated
Essay	50%	

20 Credits

Level 6

Developments in the land-based Sciences -(EC166)

This module is designed to allow learners to develop a wider knowledge of the Land based sciences/sector and the issues that have shaped it and are currently affecting working practices. They 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 will revise and build upon the student’s study and independent research skills and give them opportunities to explore key areas of interest and development.

The module will highlight and promote opportunities to participate and attend seminars and speakers both in house and at other institutions to aid learning, research and networking skills. Students 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 Type:

Assessment Type	% Wt	Comments
Literature Review	60	2000 words S1
Seminar Presentation	40	20 minutes and 20 slides maximum (excluding references and 10 question time) S2
Formative	0	Class debate – recent and emerging issues in the sector S1 Peer Assessed Practice Seminar – S2

20 Credits

Advanced Canine and Feline Behaviour and Training -(EC168)

Canis familiaris and Felis catus are commonly kept as pets in the United Kingdom, however often express abnormal or inappropriate behaviours in their domestic setting. The students will analyse the normal, abnormal and inappropriate behaviour of these and behavioural, physiological and cognitive differences between breeds and how successful rearing of young animals can prevent unwanted behaviours occurring.

Students will review current training methods and training aids, evaluating fitness for intended purpose, welfare and suitability for different breeds within a species. Students will investigate how to determine an underlying cause of a behavioural problem and how canine and feline neurobiology can influence on animal behaviour. Students will design behaviour modification / training plans and analyse how neurobiology can be manipulated to modify animal behaviour. Students will investigate and appreciate the importance of tailoring behavioural modification plans accordingly with consideration for modern methodologies, ethics and animal welfare.

20 Credits

Assessment Type:

Assessment Type	% Wt	Comments
Presentation	65	20 Minutes (plus questions) S2
Time limited assessment	35	48 hour timed assessment S2
Formative	0	Short answer tests VLE S1/2 Skills Assessment S2 Practicve presentation- peer assessed S2