



# ANIMAL SCIENCE

## FdSc AND BSc TOP-UP ZOO MANAGEMENT



### MODULES FOR STUDY

#### Year 1 (Level 4)

##### **Fundamentals of Animal Biology**

is designed for you to develop knowledge of biology on a range of scales (e.g. cellular to organismal), yet will place specific emphasis on homeostasis and regulatory systems, neural communications, genetics and inheritance.

##### **Animal Husbandry & Handling**

aims for students to acquire the skills in managing a wide range of species in captivity, with particular emphasis on the specialist husbandry techniques and practices of a variety of exotic and domestic species including mammals, birds, reptiles, amphibians, fish and invertebrates. This is achieved through both theory based sessions and practical sessions using our zoo and farm facilities.

##### **Scientific Data Collection and Analysis**

aims to provide you with an introduction to the fundamental ideas of statistics, show you how statistical techniques may be applied to a variety of scenarios in the animal sciences, and develop your skills in data recording, handling and analysis.

##### **Zoos & Conservation**

introduces students to the role of zoos both historically and in the 21st century, and enables students to subsequently examine these roles in detail, with specific regards to how they serve society through their captive breeding, reintroduction, captive animal management, education and research activities.

##### **Principles of Animal Disease**

explores common animal diseases across a variety of species, with the view to develop knowledge and understanding of the major pathogen groups and how disease is manifested and managed in a variety of contexts.

##### **Introduction to Animal Behaviour**

introduces key topics in the behaviour of animals, including feeding strategies, reproductive strategies and parental behaviour, aspects of territorial and social behaviour, communication, navigation and migration, learning and development.

#### Year 2 (Level 5)

##### **Research Methods**

will introduce you to the process of research and develop your skills in development of research projects in a subject-specific context.

##### **Zoo Animal Welfare**

aims to develop learner's knowledge of animal welfare science in relation to the management of a range of zoo housed species. In this module you will also develop your understanding of assessment methods, legislation and various ethical viewpoints which can be applied to welfare science.

##### **Captive Breeding & Record Keeping**

focuses on training you to a high standard on ZIMS (Zoological Information Management System - 'Species 360') application - the global standard for zoological record keeping. It also explores collection planning and factors influencing captive breeding decisions.

**Zoo Animal Nutrition** examines the topic of nutrition in a zoo context ('zootrition') with special attention given to the role of the basic nutrient groups, digestive systems and structured feeding plans in providing suitable diets for captive animals.

##### **Zoo Animal Behaviour\***

is designed to develop your understanding of the behaviour of captive animal species, but more specifically how zoo animal behaviour can be applied to facilitate the development of improved husbandry practices.

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**Find out more at**

[ucreaseheath.ac.uk](http://ucreaseheath.ac.uk)

### MODULES FOR STUDY

#### **Zoo Animal Training\***

aims to develop your understanding of animal training within zoos along with evaluating the ethical, welfare considerations and effectiveness of training programmes. This module will also develop students understanding of learning theory and the use of training in the conservation of endangered species.

#### **Experiential Learning\***

aims to develop core transferable skills by undertaking overseas study, which includes the opportunity to reflect on meaningful work undertaken as part of an international field course.

#### **Work Based Learning in the Land Based Industries\***

is designed for you to express a preference for a particular field of industry, and then be located with a local employer to undertake meaningful work, normally in an area related to zoo management.

### Top-Up Year (Level 6)

#### **Dissertation**

is a double module where you will pursue your own research project while working closely with a tutor who has research expertise in this area.

#### **Behavioural Enrichment & Training**

is a module designed to allow you to explore the purpose of enrichment and training practices, but more specifically concerns how captive animal caregivers integrate, manage and evaluate these practices in a range of environments, including zoo, farm, and laboratory based settings.

#### **Zoo Animal Enclosure Design**

aims to develop your critical evaluative skills with regards to zoo enclosure design and will consider the different facets of enclosure and exhibit design. In addition, the module aims to develop your skills in using computer aided design software to create your own detailed species specific enclosure design.

#### **Applied Issues in Wildlife Conservation\***

is designed to develop your in-depth knowledge of current topics in conservation biology, plus enable you to critically examine current issues in wildlife preservation and evaluate a range of techniques and approaches employed in the study of conservation monitoring and management.

#### **Biology & Conservation of Aquatic Organisms\***

aims to enable you to develop knowledge and understanding of the biology and conservation of all aquatic organisms, including marine and freshwater mammals, fish and invertebrates. Furthermore, you will have opportunity to examine the methods employed to manage these species for conservation purposes.

#### **Biology & Conservation of Mammals\***

aims to enable you to understand biodiversity and conservation implications of the class Mammalia, plus examine the diagnostic characteristics of mammals and their phylogenetic relationships and interactions with their environment in relation to the conservation and management of mammalian taxa.

#### **Biology & Conservation of Herpetofauna\***

focuses on developing your understanding of the biology, behaviour and ecology of the Amphibia and Reptilia classes, and introduces you to the conservation requirements of herpetofaunal species.

#### **Biology & Conservation of Birds\***

explores the evolutionary history of birds, their behaviour and ecology in relation to species decline, and their subsequent conservation and management.

#### **Scientific Communication & Zoo Education\***

examines the role of zoos in educating a range of audiences regarding pertinent conservation issues. This will also include the methods in which this information is conveyed and delivered, but also how scientific communication is used to inform, consult and persuade audiences.

\*Optional modules of study