ZOOLOGY

Zoology is the study of animals, from the simplest invertebrates to the largest terrestrial or marine mammals. Simple animals often provide models for the study of higher, more complex species (including humans) and help drive basic research that transcends the subject boundaries.

Animals interact with each other and with their environment, forming complex relationships such that zoologists need a broad understanding of the living world, life processes and the animal kingdom. Importantly, zoonotic diseases such as Covid-19 are an ever growing threat to human health. Exciting progress is being made in animal biology and behaviour, animal health and welfare and in the management of animal communities, emerging infectious diseases, de-extinction and addressing climate change making this the perfect time to study Zoology.

COURSE CONTENT

The BSc in Zoology at Queen's aims to provide students with a broad coverage of the biology of animals and how they interact with other living organisms.

The modules are:

Stage 1

- Biodiversity
- Molecular Basis of Life
- The World of Microorganisms

This module combination provides students, who may be undecided as to their final specialist degree area, with considerable flexibility as they enter Stage 2; at this stage students enrolled in Zoology can move into Marine Biology or Biological Sciences.

Stage 2

- Forensics and Toxicology
- Animal Biology and Physiology
- Invertebrate Biology
- Applied Ecology
- Applied Genetics
- Microorganisms in Action
- Work Placement
- Coastal and Oceanic Biology
- Cell Biology
- Advanced Cell Biology

Work Placement

- Zoology students can complete a 16-week degree-related work placement
- Zoology with Professional Studies students will complete a one-year, degree-related work placement

Students undertaking the Professional Studies programmes will spend a minimum of 46 weeks in a work placement. During their placement they will complete project type work and gain a transferable skill set sought by future employers. Preparations for work placements will begin in the first semester of Stage 2. Recent placements have included Harnas Wildlife Foundation (Namibia), Mopane & Mapesu Private Game Reserve (South Africa), Kindred Spirit Elephant Sanctuary (Thailand), Wildfowl and Wetlands Trust

Stage 3

- Conservation Biology
- Behavioural Ecology
- Sustainable Oceans
- Medical Microbiology
- Global Change Biology
- Immunology and Immunotheraphy
- Parasitology
- Zoonoses
- Farm Animal Health and Welfare
- Research Project (BSc programmes only)

The research project generally involves practical work carried out in the field and laboratory or at Queen's University Marine Laboratory in Portaferry, or in one of the many active areas of research in the School of Biological Sciences such as Parasitology Animal Physiology and Tracking, Animal Behaviour, Animal Welfare and Zoonotic Diseases. Additionally, it may be carried out during summer placement.

BSc Honours

Zoology 3 yrs *(C300)*

Zoology with Professional Studies *4-yr SW(C301)*

MSci Honours

Zoology *4 yrs (C302)*

Zoology with Professional Studies *5-yr SW (C305)*

Entrance Requirements

BSc

A-level:

BBB including Biology and at least one from Chemistry (preferred), Geography, Mathematics or Physics + GCSE Chemistry grade C/4 or GCSE Double Award Science grades CC/44 + GCSE Mathematics grade C/4

OR

BBB including Double Award Applied Science or Double Award Life and Health Sciences + GCSE Biology grade C/4 and Chemistry grade C/4 or GCSE Double Award Science grades CC/44 + GCSE Mathematics grade C/4

OR

ABB including Biology + GCSE Chemistry grade C/4 or GCSE Double Award Science grades CC/44 + GCSE Mathematics grade C/4.

MSci

A-level:

AAB including Biology and at least one from Chemistry (preferred), Geography, Mathematics or Physics + GCSE Chemistry grade C/4 or GCSE Double Award Science grades CC/44 + GCSE Mathematics grade C/4

OR

AAB including Double Award Applied Science or Double Award Life and Health Sciences + GCSE Biology grade C/4 and Chemistry grade C/4 or GCSE Double Award Science grades CC/44 + GCSE Mathematics grade C/4

OR

AAA including Biology + GCSE Chemistry grade C/4 or GCSE Double Award Science grades CC/44 + GCSE Mathematics grade C/4.

Note: MSci applicants will automatically be considered for admission to the BSc if they are not eligible for entry to the MSci, both at initial offer-making stage and when results are received.

All applicants: It would be an advantage to have studied Chemistry beyond GCSE level.

Option to Transfer: transfers between BSc and MSci may be possible at the end of Stage 2.

For students whose first language is not English

An IELTS score of 6.5 with a minimum of 5.5 in each test component or an equivalent acceptable qualification, details of which are available at: **go.qub.ac.uk/EnglishLanguageReqs**

Stage 4 (MSci Students only)

Research Project

The research project involves practical work carried out in the field and laboratory or at Queen's University Marine Laboratory in Portaferry, or in one of the many active areas of research in the School of Biological Sciences such as Parasitology and Animal Behaviour. Exciting possibilities are also available abroad with our collaborators involved in conservation projects in Africa, South Africa, America and Thailand. There are no taught modules or examinations in this year, allowing students to concentrate fully on their research activity.

WHY QUEEN'S?

Professional Recognition

The BSc Zoology and BSc Zoology with Professional Studies have been accredited by the Royal Society of Biology following an independent and rigorous assessment. Accredited degree programmes contain a strong academic foundation in biological knowledge and key skills, and prepare graduates to address the needs of employers.

The MSci Zoology and MSci Zoology with Professional Studies hold advanced accreditation with the Royal Society of Biology. Advanced Degree Accreditation by the Society recognises academic excellence in the biosciences, and highlights degrees that educate the research and development leaders and innovators of the future.

Work Placement

Work placements on these programmes provide students with the opportunity to utilise the practical skills gained during the teaching of their degree and apply these in a work environment.

Past students have gained work placement within organisations such as Belfast City Hospital, Royal Victoria Hospital, Northern Ireland Environment Agency, Castle Espie, National Trust, North Atlantic Whale Foundation, Ulster Wildlife Trust, Harnas Wildlife Foundation Namibia, Mopane & Mapesu Private Game Reserve, South Africa, Health Service, Kindred Spirit Elephant Sanctuary, Turtle Foundation and many more.

Zoologists at QUB have the opportunity to avail of the strong international links with Universities in South Africa, America and Canada. In addition there is the opportunity to volunteer or carry out projects at many international sites including the elephant sanctuary in Thailand, African Wildlife rehabilitation in Namibia and South Africa as well as many other countries.

CAREERS/FURTHER STUDY

Graduates are qualified to take up both scientific and non-scientific careers. These positions encompass areas of innovative research and development of new products, advisory and consultancy work, particularly in companies or organisations concerned with animal and plant health, environmental management, pharmaceutical products and biotechnology.

Graduates pursue careers in teaching, nature conservation and laboratory-based posts in biomedical, industrial, pharmaceutical, academic and government institutions as well as in universities and colleges of higher education. The remainder undertake further training in areas such as computing, administration and management or medicine (human or veterinary), developing their skills from a sound scientific background. Further training also helps them to find employment in a variety of non-biological careers , including public service administration, industrial management, accountancy and computing.

Employers are looking for graduates with generic skills of communication, problem-solving, data analysis, social skills, a range of interests and a record of success. We believe that a degree in Zoology will help our students to develop these skills. For further information on careers see the Institute of Biology website..

Employer Links

The School of Biological Sciences employs a dedicated careers adviser who has developed an extensive portfolio of employers, both nationally and internationally, within the science sector. Advice is also provided on CV preparation, interview techniques and securing summer work or longer placements. Our past students have also gained work placement with organisations such as:

- Northern Ireland Water Ltd
- Environment Agency
- Forensic Service
- Moy Park
- North Atlantic Whale Foundation
- National Trust
- Randox Laboratories
- Norbrook Laboratories Ltd
- The Almac Group
- Castle Espie
- Belfast Zoo
- RSPB
- Ulster Wildlife Trust
- Kindred Spirit Elephant Sanctuary
- Harnass Wildlife Foundation
- Mopane and Mapesu Private Game Reserve
- Turtle Foundation
- Wildlife and Wetland Trust

Further Study

Many students complete higher degrees, either in the UK or overseas, before embarking on a career in medical, veterinary, agricultural and environmental research. Students can choose from a wide range of Master's programmes at Queen's, as well as a comprehensive list of research topics. Many graduates also choose to complete the postgraduate teacher training programme (PGCE) for entry into a teaching career.

Royal Society of Biology
Advanced Accredited Degree

Royal Society of Biology
Accredited Degree

Entrance requirements
e: admissions@qub.ac.uk
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