BSc Applied Marine Zoology

Module descriptions*

You will study a total of 120 credits over the year. These will include 80 credits from core modules and 40 from optional modules.

YEAR 3

Honours Project (Core) 40 credits

A major part of your final year this module allows you to undertake your own in depth research project. The module comprises a substantial research study element, which includes a literature review, experimental design, the collection, analysis and interpretation of data and report writing.

GIS and Marine Environmental Management (Core) 20 credits

As technology develops apace, we have increasing potential to use marine resources and the pressure on these has never been greater. In the last decade there has been a shift towards an 'Ecosystem approach' to resource management which requires an ability to understand the potential impacts and conflicts surrounding a variety of marine resources, from current use of fisheries to developing areas such as offshore power and seabed mining. GIS is a powerful tool to aid management and spatial planning. Using ecological data and models students will map use of marine systems and also examine where impacts with marine life and ecosystems may occur.

Monitoring Marine Ecosystems (Core) 20 credits

This module builds on survey methods developed in Stage 1 and 2. Students will investigate and employ a range of methods including fieldwork, remote sensing, bio-indicators and ecological models to enable them to effectively plan and undertake monitoring programmes. Students will select a taxonomic group to specialise in and hone their identification and survey skills in that area.

Choose two from:

Marine Pollution and Ecotoxicology (Optional) 20 credits

Examining current topics within marine pollution from specific organic chemicals to chronic noise; this module looks at the sources, pathways impacts and sinks of different pollutants and evaluates prevention and mitigation strategies. Considering the effects of specific pollutants from a cellular, whole organism, community and the ecosystem, students will evaluate the use of biomarkers and bioindicator species for monitoring pollutants.

Applications in Zoology (Optional) 20 credits

This module enables students to study and develop ideas related to selected zoological themes relevant to the workplace or research situation. The student will explore these themes through the literature, seminars and tutorials developing his/her own research skills.

Conservation Project Management (Optional) 20 credits

Project management is a vital component of conservation work, as most activities are time-limited projects based on limited funds, a need to maximise planned activity, keep to a budget and regularly report to funding providers. Effective communication of research is a vital skill to increase public awareness of conservation issues, this module will explore how science is effectively and appropriately communicated to a range of audiences and evaluate their effectiveness in the delivery of coherent messages.

Communicating Zoology (Optional) 20 credits
In this module you will explore how science is effectively and appropriately communicated to a range of audiences and extend your skills in using a variety of media and evaluating their effectiveness in the delivery of coherent messages.

Conservation Genetics (Optional - prerequisite is level 5 genetics module) 20 credits
This module aims to equip the learner with the most up to date molecular techniques being used in genetics for conserving and protecting species. This will look at genome sequencing of animals, the importance of maintaining genetic diversity within a captive and wild population, and the implication of genetic diversity in management of small populations of possibly threatened species

Careers and Progression:

It is a fantastic career, but marine biology is a highly competitive field, so you must be prepared to work hard and make the most of work related learning opportunities. Luckily Cornwall has a very active marine community so there are plenty of opportunities. The marine environment has come to the forefront of the agenda for the European community so the demand for academically qualified and practically experienced people has never been higher. The Marine Conservation specialism provides the opportunity to move into a wide range of careers including consultancy, or working for organisations like the Environment Agency, English Nature or Wildlife Trusts.

Additional Activities and Expenses:

Visits: There are activities and day trips to supplement the academic side of the course – most of these are free but some may entail small costs towards travel costs or entry fees (approx £20 per year)
Equipment: Good waterproofs (coat and trousers), and footwear for fieldwork are essential. Your own IT equipment (a good laptop) will make your studies much easier.
Fieldtrips: There may be opportunities for fieldtrips within the UK and abroad depending on demand and availability, for example we have offered international fieldtrips to South Africa, Borneo and Honduras costing approximately £2000.
Activities: We encourage students to undertake some training in boat handling and/or diving this is entirely optional, cost vary (approximate costs for examples: RYA level 2 powerboat £120, PADI Open water diver £250)

*Please note – modules are indicative and may be subject to change.

Core

FHEQ Level: 6 BSc (Hons) Applied Marine Zoology (Full Time 4897)				
F/T Route Year	**When in Year? (I.e. Autumn, Spring etc.)**	**Core or Option Module**	**Credits**	**Module Title**
3	All	Core	20	CORN316 Monitoring Marine Ecosystems
3	All	Core	20	CORN317 GIS and Marine Environmental Management
3	All	Core	40	CORN328 Honours Project
3	All	Optional	20	CORN318 Marine Pollution and Ecotoxicology
3	All	Optional	20	CORN314 Conservation Project Management
3	All	Optional	20	CORN306 Applications of Zoology
3	All	Optional	20	CORN315 Conservation Genetics
3	All	Optional	20	CORN305 Communicating Zoology