



MARINE BIOLOGY

Bsc (Hons)



ARE YOU STIRLING?



REASONS TO CHOOSE THIS COURSE

1 THE COURSE IS RUN BY THE INSTITUTE OF AQUACULTURE:

One of the largest, multi-disciplinary departments of its kind in the world.

2 INSTITUTE EXPERTS

Cover all aspects of sustainable exploitation of marine biological resources.

3 STIRLING STUDENTS THEREFORE HAVE A UNIQUE OPPORTUNITY:

To study and gain practical experience of a wide range of topics within one department.

WHY STUDY MARINE BIOLOGY?

Are you fascinated by the oceans and the rich diversity of organisms that inhabit their depths?

Marine Biology involves studying these specialised plants and animals, and how they solve the unique problems imposed by the sea's physical and chemical environment.

This course is truly multi-disciplinary. It draws on other biology disciplines, such as ecology and the physical and environmental sciences, to answer questions such as: What determines the distribution of individual organisms and populations? Why are some ocean provinces more productive than others? What impact does human activity have on the health of the oceans? Why are some fisheries sustainable and others not?

90%

**GO ON TO WORK AND/
OR STUDY**

UNISTATS 2016

COURSE DETAILS

Advanced Marine Systematics and Taxonomy provides you with an advanced understanding of the main systematic groups of marine flora and fauna. You will discover the key physical structures that determine functional groups, how genetic variability determines speciation and the formation of a distinct species of plant or animal, and how these factors relate to habitat and niche preferences, growth and development, and feeding behaviours.

The Marine Mammals Field Course gives the opportunity to learn field skills used to study the behaviour, distribution and abundance of large marine vertebrates and provides an overview of the taxonomy, physiology, behaviour, and current research on seals, whales, dolphins and turtles.

Advanced Marine Biology examines marine habitats from an ecological perspective, evaluating how they function, assessing species diversity, and importantly, how natural and man-made impacts are affecting this. We will also explore the impact marine organisms have on human society through developments in biotechnology and other uses. Major risks likely to affect these species and habitats are also studied. At the end of the course you will be able to appreciate and understand the diversity of marine species and ecosystems that exist and the major man-made risks affecting them.

As a major Scottish industry and employer of marine biology graduates is the aquaculture sector, a module covering aquaculture is integral to the course. Additionally, the Science of Diving module covers diving physiology, practice and safety for scientific investigation, as well as knowledge of alternate methods of underwater environmental assessment.

FIELD COURSES

You will take part in two field courses in which you will study seashore and inshore marine organisms and marine mammal biology. An independent research project is a major component of the final year and is often carried out in association with external bodies. (Some of the cost for travel, accommodation and subsistence for the residential field course is borne by the student.) In addition, there are day field study visits to external sites to gain relevant experience.

CAREER OPPORTUNITIES

Our students are sought after in relevant areas of employment in both public and private sectors, such as: environmental protection, environmental impact assessment, environmental and conservation fields, pollution control, water companies, tourism, fisheries management, governmental regulatory departments and the fast-growing aquaculture sector.

In addition, there is a wide range of more general graduate employment, such as with biotechnological companies, bioinformatics, health and clinical sciences, forensic science, medical sales and marketing, science journalism and teaching.



MARINE BIOLOGY

stir.ac.uk/4n

C160

MINIMUM REQUIREMENTS

YEAR 1 ENTRY – FOUR-YEAR HONOURS

SQA Highers:

AAAB – one sitting

AAAB – two sittings

GCE A-levels:

BBB

IB Diploma:

32

BTEC (Level 3):

DDM

Essential subjects:

To include one of Biology, Chemistry, Mathematics or Physics.

YEAR 2 ENTRY – THREE-YEAR HONOURS

SQA Adv Highers:

ABB

GCE A-levels:

ABB

IB Diploma:

35

Essential subjects:

To include Biology and one of Environmental Science, Geography or Geology.

OTHER QUALIFICATIONS

Scottish HNC/HND:

Minimum entry: Bs in graded units.

Advanced entry: Please visit:

<http://stir.ac.uk/ay>

Access courses and other UK/EU and international qualifications are also welcomed.

Essential subjects:

As listed above or equivalent.

ADDITIONAL INFORMATION

General entry requirements apply. Please visit:

<http://stir.ac.uk/av>

PART TIME, ADVANCED ENTRY AND STUDY ABROAD OPTIONS AVAILABLE

TYPICAL TIMETABLE

YEAR	SEMESTER	MODULE 1	CREDITS	MODULE 2	CREDITS	MODULE 3	CREDITS
1	1	Our Blue Planet (core)	20	Laboratory Skills (core)	20	Introduction to Cell Biology (core)	20
	2	Our Thirsty Planet (core)	20	Field Skills (core)	20	Introduction to Physiology (core)	20
2	3	Introduction to Aquatic Environments (core)	20	Evolution and Genetics (core)	20	Any module	20
	4	Science of Diving (elective)	20	Statistical techniques (core)	20	Biodiversity (elective)	20
3	5	Managing Living Aquatic Resources (core)	20	Microbiology (core)	20	Animal Physiology (core)	20
	6	Advanced Marine Biology (core)	20	Marine Biology Field Course (core)	20	Aquaculture (core)	20
4	7	Marine Mammals Field Course (core)	20	Advanced Marine Systematics and Taxonomy (core)	20	Marine Biology Project (core)	60
	8	Marine Biology General Exam (core)	20				

COMPULSORY MODULES

Our Blue Planet; Laboratory Skills; Introduction to Cell Biology; Our Thirsty Planet; Field Skills; Introduction to Physiology; Introduction to Aquatic Environments; Evolution and Genetics; Statistical Techniques; Managing Living Aquatic Resources; Microbiology; Animal Physiology; Advanced Marine Biology; Marine Biology Field Course; Aquaculture; Marine Mammals Field Course *; Advanced Marine Systematics and Taxonomy; Marine Biology Project; Marine Biology General Exam.

(*Student contribution to field course costs)

OPTIONAL MODULES

Biodiversity; Our Hungry Planet; Science of Diving.

CONTACT

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