



AQUACULTURE

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 OUR NUTRITIONAL ANALYTICAL SERVICE:

For the feed and food sector using state-of-the-art lab facilities.

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 AQUACULTURE?

Keeping our oceans healthy, protected and sustainable is vital for our planet and the people living on it as the aquaculture industry already provides over 50 percent of all fish for human consumption.

However, aquaculture – or aquatic agriculture – is more than just ‘fish farming’ and our course will train you in all subjects relevant to global aquaculture. Aquaculture includes the culture of many species including crocodiles and turtles.

Our Institute of Aquaculture enjoys an international reputation in teaching, research, contract research and consultancy. We provide disease and environmental management services, project design and development expertise to organisations operating in one of the most rapidly expanding food production sources in the world.

COURSE DETAILS

Management of Living Aquatic Resources: The course provides a broad introduction to the issues surrounding human exploitation of aquatic resources (particularly in the contexts of capture fisheries and aquaculture) and of human interaction with these valuable biological assets. The biology of principal cultured aquatic organisms, with respect to their exploitation, is studied.

Final-year teaching reflects the concentration of the Institute’s research into five key areas of aquaculture development: reproduction and genetics; environment and production systems; nutrition (both human and animal); health, welfare, and disease; and aquatic food security.

Much of the application of genetics and reproduction takes place in the management of stocks of aquatic organisms in hatcheries, where appropriate management has a major effect on seed quality and stock performance. Aquaculture Genetics and Reproduction covers the traditional and molecular scientific principles of genetics and reproduction, and the ways in which these are applied to manage aquaculture stocks and seed quality in hatcheries. Basic concepts of hatchery management are demonstrated and practised in the Institute’s tropical aquarium and external farm facilities.

Advanced Marine Biology: We examine marine habitats from an ecological perspective, evaluating how they function, assessing species diversity, and importantly, how natural changes 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.

WORK EXPERIENCE

Many students spend their final semester on an overseas placement to complete their dissertation and gain some work experience. The Institute of Aquaculture has contacts with other academic departments/government facilities/industry all over the world so placement options are plentiful.

CAREER OPPORTUNITIES

Worldwide, aquaculture is the fastest-growing food production sector, and more locally, one of Scotland's biggest export markets. A graduate in Aquaculture is well equipped to enter both the expanding field of aquaculture or related positions including: aquaculture development, aquaculture production, hatchery companies, fish farm companies, environmental impact assessment, environmental and conservation fields, pollution control, pharmaceutical companies, fisheries management and governmental regulatory departments.

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.



AQUACULTURE stir.ac.uk/9j

C164

MINIMUM REQUIREMENTS

YEAR 1 ENTRY – FOUR-YEAR HONOURS

SQA Highers:

AABB – 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.

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

Advanced entry:

Please consult website for details.

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	Our Hungry Planet (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	Aquaculture (core)	20	Aquaculture Field Course (core)	20	Advanced Marine Biology (core)	20
4	7	Aquaculture Genetics, Reproduction, and Nutrition (core)	20	Aquaculture Environment and Disease (core)	20	Aquaculture Project (core)	60
	8	Aquaculture 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; Aquaculture; Aquaculture Field Course; Aquaculture Genetics, Reproduction, and Nutrition; Aquaculture Environment and Disease; Aquaculture Project; Aquaculture General Exam.

OPTIONAL MODULES

Our Hungry Planet; Biodiversity; Science of Diving.

CONTACT

Dr Darren Green
Faculty of Natural Sciences

T: +44 (0) 1786 467872

E: darren.green@stir.ac.uk

W: stir.ac.uk/natural-sciences

Student Recruitment and Admissions

T: +44 (0) 1786 467046

E: recruitment@stir.ac.uk

stir.ac.uk/65

JOIN OUR COMMUNITY



ARE YOU STIRLING?