



SUSTAINABLE
AQUACULTURE
COURSES

Prospectus 2023/24



University of
St Andrews

FOUNDED
1413

Online Sustainable Aquaculture Courses

Flexible, part time learning delivered 100% online for anyone looking to accelerate their career development in aquaculture or those who have practical work experience in the aquaculture industry but no formal qualifications.

The perfect partnership: pairing the University of St Andrews educational strength with an interactive online delivery.

Course Directors

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Institution

University of St Andrews

Location

Courses are delivered 100% online

Introductory

Undergraduate Certificate

Advanced

Postgraduate Certificate
Postgraduate Diploma/MSc
Modular Short Courses



University of
St Andrews

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Level: Introductory

Undergraduate Certificate

Course Description

The qualification consists of two core modules and one of three optional modules.



CORE MODULES

- The global aquaculture industry
- Fish and invertebrate biology



OPTION MODULES

- Aquaculture products and markets
- Nutrition
- Health

Each module is divided into a series of topics with associated assessments, tutorials and case studies. There is a monitored online examination at the end of each module.

Each topic requires around 4 hours study time. A new topic is published each week, but does not necessarily need to be completed that week. Each module takes 10-12 weeks to complete.

Entry Requirements

Students must have gained SQA Standard grade (1 or 2) or GCSE (A or B) or equivalent in English and Mathematics along with at least two higher (H) or at least one GCE A Level or equivalent in the following subjects: Biology, Chemistry, Computing, Geography (or Geology), Mathematics, Physics or Psychology.

In line with the University's drive to widen access, additional evidence of relevant professional experiential learning (RPEL) may be taken into account for entry.

Starting

January 2023

September 2023

Course Fees



st-andrews.ac.uk/students/money/fees/feestable/

To enquire, simply e-mail us at bioteach@st-andrews.ac.uk

or write to the Course Directors



Level: Advanced

Postgraduate Certificate

Course Description

The award of this qualification requires 60 credits gained from taught modules over a one-year period, each module is worth 10 credits. There are two courses available: Vertebrates and Invertebrates.



VERTEBRATE CORE MODULES

- Aquaculture and fisheries
- Biology for aquaculture
- Nutrition
- Health and disease



VERTEBRATE OPTION MODULES

- Management, husbandry and sustainability
- Markets, products, processing and food safety
- Local and global impacts of aquaculture



INVERTEBRATE CORE MODULES

- Aquaculture and fisheries
- Biology for aquaculture
- Nutrition
- Health and disease



INVERTEBRATE OPTION MODULES

- Management, husbandry and sustainability
- Markets, products, processing and food safety
- Local and global impacts of aquaculture

Entry Requirements

Students must hold an upper second-class honours degree in Biological Science or other relevant discipline from a UK university or its foreign equivalent. Entry will also be offered following successful completion of the Undergraduate Certificate in Sustainable Aquaculture in conjunction with additional evidence of relevant professional experiential learning. Overseas students whose first language is not English must provide evidence of competence in written and spoken English.

Starting

January 2023

January 2024

Course Fees



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Level: Advanced

Postgraduate Diploma/MSc

Postgraduate Diploma

The award of this qualification requires 120 credits gained from taught modules over a two-year period consisting of a series of compulsory core modules and a choice of optional modules matched to students' specific interests.

CORE MODULES



- Aquaculture and fisheries
- Biology for aquaculture
- Nutrition
- Health and disease
- Management, husbandry and sustainability
- Markets, products, processing and food safety
- Local and global impacts of aquaculture

OPTION MODULES



- Breeding and genetics
- Welfare and ethics, recirculating aquaculture systems
- Ornamental and aquaria production
- Larval rearing

MSc

Students on the MSc programme complete a 15,000-word dissertation at the end of their studies for the PGDip. The dissertation involves the study of a defined problem within the field of sustainable aquaculture. Students are required to collate and analyse data and to discuss their results in the light of existing literature.

Students are normally admitted to the MSc programme after they have completed the Postgraduate Diploma

Entry Requirements

Students must hold an upper second-class honours degree in Biological Science or other relevant discipline from a UK university or its foreign equivalent. Entry will also be offered following successful completion of the Undergraduate Certificate in Sustainable Aquaculture in conjunction with additional evidence of relevant professional experiential learning. Overseas students whose first language is not English must provide evidence of competence in written and spoken English.

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September 2023

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Level: Advanced

Modular Short Courses

Course Description

Our Sustainable Aquaculture Postgraduate modules are each available as shorter 12-week courses. These allow students to focus their studies on specific areas of interest or to study for a Postgraduate qualification in a more manageable way. The modules on offer provide students with credits towards a full Postgraduate qualification. Each module is worth either 10 or 20 credits.

MODULES

- | | |
|---|--|
| - Aquaculture and fisheries 10 credits | - Health and disease - invertebrates 10 credits |
| - Biology for aquaculture 20 credits | - Health and disease - vertebrates 10 credits |
| - Biology for aquaculture - invertebrates 10 credits | - Markets, products, processing and food safety 10 credits |
| - Biology for aquaculture - vertebrates 10 credits | - Local and global impacts of aquaculture 10 credits |
| - Nutrition for aquaculture 20 credits | - Breeding and genetics 10 credits |
| - Nutrition - invertebrates 10 credits | - Welfare and ethics 10 credits |
| - Nutrition - vertebrates 10 credits | - Recirculating aquaculture systems 10 credits |
| - Management, husbandry and sustainability 10 credits | - Ornamental and aquaria production 10 credits |
| - Health and disease 20 credits | - Larval rearing 10 credits |

Entry Requirements

Students must hold an upper second-class honours degree in Biological Science or other relevant discipline from a UK university or its foreign equivalent. Overseas students whose first language is not English must provide evidence of competence in written and spoken English. In line with the University's drive to widen access, additional evidence of relevant professional experiential learning (RPEL) may be taken into account for entry.

Starting

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September 2023

January 2024

Course Fees



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Online 24/7

The St Andrews courses are available 24/7 so students are free to study at a time that suits them. Tutors are on hand to answer any questions via the discussion forum or e-mail and the interactive lessons and self-assessments help students to learn in a variety of ways which enables them to engage with the material.

Question 6 Correct Mark 1.00 out of 1.00 [Flag question](#) [Edit question](#)

Red muscle is used for:

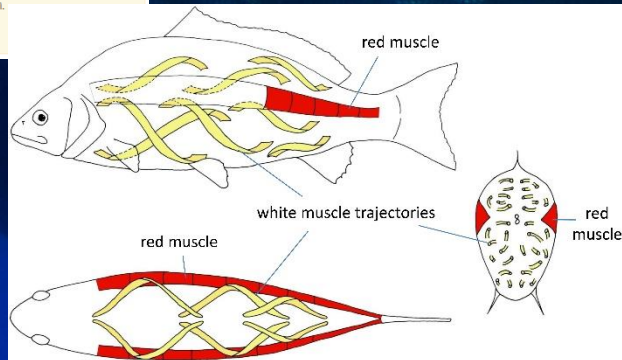
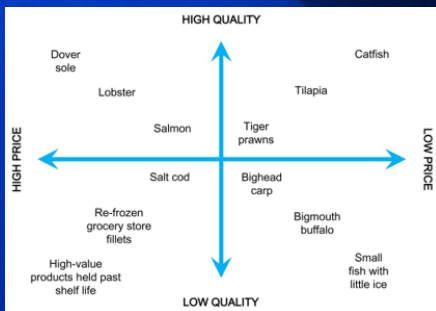
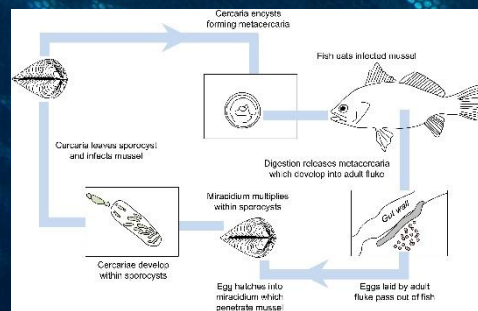
Select one:

- a. Sustained swimming ✓
- b. Anaerobic contraction
- c. Fast swimming of long duration
- d. Fast swimming of brief duration

Your answer is correct.

Red muscle is used in sustained swimming and is red because it has a rich blood supply and its fibres contain myoglobin, which acts as an internal oxygen transport system.

The correct answer is: Sustained swimming





Testimonials

'...I loved the modules and found them so interesting. At the start of the course I didn't really have a huge interest in the business aspect of aquaculture, but as you introduced this throughout the course I found myself really enjoying it which meant I have changed my direction more towards this, for that I thank you greatly... I am now employed building a large RAS which will initially serve as a hatchery for lumpfish and is set to develop into other species too. I am currently designing my second aquaponics system (having learnt from a lot of mistakes in my dissertation). All of this has been made possible thanks to the Sustainable Aquaculture course so thank you for setting me up so well.'

Euan - Recent MSc graduate

'The Commonwealth Scholarships and the University of St Andrews have made a significant impact on my ability to contribute to Guyana's aquaculture development by affording me the opportunity to be part of this programme. I'm extremely grateful to have been selected to participate in an area that desperately requires attention in awareness and the application of sustainable measures within our national strategic plan for the development of aquaculture.'

Nakita - Recent MSc graduate

'...a unifying platform where the world was seen as a global village as a single class room where we could easily interact and exchange views among ourselves and with our course tutors... For the period I have been a student at St Andrews I have really learnt new aquaculture skills that have been vital in my current career position as fisheries officer in Kenya. I have gained experience that I shall never hesitate to recommend other Kenyans with interest in acquiring aquaculture skills to consider University of St Andrews for their post graduate studies in sustainable aquaculture.'

Fredrick - Recent MSc graduate



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