

Fish Nutrition (C003913)

Due to Covid 19, the education and assessment methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size *(nominal values; actual values may depend on programme)*
Credits 8.0 **Study time 200 h** **Contact hrs** 24.0h

Course offerings in academic year 2021-2022

A (semester 1) English Gent

Lecturers in academic year 2021-2022

Waagbo, Rune BERGEN01 lecturer-in-charge

Offered in the following programmes in 2021-2022

	crdts	offering
International Master of Science in Marine Biological Resources(main subject Management of Living Marine Resources)	8	A
International Master of Science in Marine Biological Resources(main subject Marine Food Production)	8	A
International Master of Science in Marine Biological Resources	8	A

Teaching languages

English

Keywords

Position of the course

Contents

The course will give the student an introduction to the nutritional significance of various feed components for growth, development, reproduction, health and quality of fish in fish farming. This involves teaching about the digestive system of the fish and the digestion, absorption, turnover and biochemical function of the various nutrients. The course also covers relevant undesirable substances in fish feed which can be a challenge for the health of the fish and for the seafood product you produce. The student will also gain knowledge about alternative resources and materials used in fish feed and the legislation that the Norwegian Food Safety Authority and industry must deal with in this area. The teaching is based on basic knowledge from biology and biochemistry.

This course has mandatory field work/scientific cruise.

Initial competences

The course builds on the basic knowledge of biology and biochemistry.

Final competences

- 1 The course will provide an introduction to the various food components' nutritional impact on growth, development, reproduction, health and quality of farmed fish. This involves learning about the fish's digestive system and the various nutrients' digestion, absorption, metabolism and biochemical function.
- 2 The course also covers relevant undesirable substances in feed that can be a challenge for the health and for the seafood product produced.
- 3 Students will also learn about alternative resources and substances used in fish feed, and the legislation that the FSA and the industry must deal with in this area.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Practicum, Seminar, Excursion, Lecture

Extra information on the teaching methods

Lectures, laboratory groups. seminar, excursion, etc.

Participation in lectures throughout the semester, with 20-25 min lectures each, which is evaluated at 20% of final grade.

A shorter thematic semester assignment (5-6 pages) that is evaluated at 20% of final grade.

Written digital exam, weighted to 60% of final grade.

Learning materials and price

References

- 1 Text book: Fish Nutrition, 3rd ed; Halver & Hardy, Academic Press, 2002, ISBN 0-12-319652-3; Available as e-book pdf downloads in the library at the University of Bergen
- 2 Presentation handouts (pdf) and selected updated review papers (pdf)
- 3 Recommended literature for candidates with special interest in fish nutrition: NRC (2011) Nutrient Requirement of Fish and Shrimp; National Research Council of the National Academies, The National Academies Press, Washington DC

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Written examination

Examination methods in case of periodic assessment during the second examination period

Written examination

Examination methods in case of permanent assessment

Oral examination, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Calculation of the examination mark

- Oral presentation (20%)
- semester assignment (20%)
- digital exam 4 hours (60%).