

## Aquaculture Nutrition (I002794)

**Cursusomvang** *(nominale waarden; effectieve waarden kunnen verschillen per opleiding)*

**Studiepunten 5.0** **Studietijd 150 u**

**Aanbodsessies in academiejaar 2024-2025**

A (semester 2) Engels Gent

**Lesgevers in academiejaar 2024-2025**

Fievez, Veerle LA22 Verantwoordelijk lesgever

**Aangeboden in onderstaande opleidingen in 2024-2025**

	stptn	aanbodssessie
<a href="#">Master of Science in Aquaculture</a>	5	A
<a href="#">Uitwisselingsprogramma bio-ingenieurswetenschappen: landbouwkunde (niveau master-na-bachelor)</a>	5	A

**Onderwijstalen**

Engels

**Trefwoorden**

Aquaculture, nutrition, food, feed.

**Situering**

The course covers a number of general and specific issues related to (non-live) feed requirements, feed characteristics, feed production, feeding practices in an aquaculture context.

**Inhoud**

1. Aquaculture feed ingredients, feed analysis, chemical and nutritive characteristics of feed ingredients
2. Aquaculture feed production technology
3. Nutritional requirements of aquaculture organisms
4. Efficiency of use of feed by aquaculture organisms: feed conversion ratio; fish-in/fish-out-ratio
5. Sustainability in feed production; alternative feed ingredients: potentials and challenges
6. Aquaculture feed formulation based on linear programming and aquaculture feed analysis
7. Excursion

**Begincompetenties**

General biology, chemistry, biochemistry and basic knowledge on aquaculture.

**Eindcompetenties**

- 1 The student is able to enumerate the main ingredients being used for aquaculture feeds, their advantages and disadvantages, and is able to critically evaluate tendencies within aquaculture nutrition with a focus on enhanced sustainability of rearing practices
- 2 The student is able to explain why an ingredient is suitable for the production of feeds in the aquatic environment.
- 3 The student understands which feed ingredients are necessary, and in which proportions, to compose a balanced artificial aquaculture diet depending on the species and the rearing context
- 4 The student is able to describe how the organism takes advantage of the feed ingredients and how feed formulation is related to intake and digestion by the organism.
- 5 The student is able to describe the various methods for feed analysis and can argue why they may be suitable in a scientific and/or an industrial production environment.
- 6 The student has insight into compound feed formulation based on linear programming

**Creditcontractvoorwaarde**

Toelating tot dit opleidingsonderdeel via creditcontract is mogelijk mits gunstige beoordeling van de competenties

### **Examencontractvoorwaarde**

Dit opleidingsonderdeel kan niet via examencontract gevolgd worden

### **Didactische werkvormen**

Werkcollege, Excursie, Hoorcollege, Practicum, Zelfstandig werk

### **Toelichtingen bij de didactische werkvormen**

Theory lectures: lectures based on powerpoint presentations and videos.

Exercises: virtual lab exercise on feed analysis; guided exercises on linear programming in feed formulation.

Excursion: visit to feed production plant and to aquaculture facilities

### **Studiemateriaal**

Type: Slides

Naam: Cursusnota's incl. slides

Richtprijs: Gratis of betaald door opleiding

Optioneel: nee

Taal : Engels

Beschikbaar op Ufora : Ja

### **Referenties**

### **Vakinhoudelijke studiebegeleiding**

Lecturers are available during and after the classes.

Further study guidance upon request by email or on appointment.

### **Evaluatiemomenten**

periodegebonden evaluatie

### **Evaluatievormen bij periodegebonden evaluatie in de eerste examenperiode**

Mondelinge evaluatie, Schriftelijke evaluatie

### **Evaluatievormen bij periodegebonden evaluatie in de tweede examenperiode**

Mondelinge evaluatie, Schriftelijke evaluatie

### **Evaluatievormen bij niet-periodegebonden evaluatie**

### **Tweede examenkans in geval van niet-periodegebonden evaluatie**

Examen in de tweede examenperiode is mogelijk

### **Toelichtingen bij de evaluatievormen**

Period aligned evaluation: theory: written closed book exam.

Non-period aligned evaluation: exercises and excursion: participation and report.

### **Eindscoreberekening**

Between 5 to 8 questions; all questions make an equal contribution to the final score. The exam is a mix of questions with written preparation and oral explanation; written theory questions; calculation exercise; interpretation of linear programming case.

Students that do not attend the practical or excursion without a valid reason, should retake the course the next academic year.

Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examiner.