

## Aquaculture Nutrition (I002794)

Wegens Covid19 kan mogelijk afgeweken worden van de onderwijs- en evaluatievormen. Dergelijke afwijkingen zullen via Ufora worden gecommuniceerd.

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

**Studiepunten** 5.0      **Studietijd** 150 u      **Contacturen**      50.0 u

### Aanbodsessies in academiejaar 2020-2021

A (semester 2)      Engels      Gent

### Lesgevers in academiejaar 2020-2021

Van Stappen, Gilbert      LA22      Verantwoordelijk lesgever  
Fievez, Veerle      LA22      Medelesgever

### Aangeboden in onderstaande opleidingen in 2020-2021

	stptn	aanbodsessie
<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 and their characteristics
2. Aquaculture feed formulation
3. Aquaculture feed production technology
4. Nutritional requirements of aquaculture organisms
4. Efficiency of use of feed by aquaculture organisms: feed conversion ratio; fish-in/fish-out-ratio
5. Aquaculture feed analysis
6. Sustainability in feed production; alternative feed ingredients: potentials and challenges
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**

Begeleide zelfstudie, demonstratie, excursie, hoorcollege, werkcollege: geleide oefeningen

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

Theory lectures: lectures based on powerpoint presentations and videos.

Exercises: guided exercises on linear programming in feed formulation and demonstration on feed analysis.

Excursion: visit to feed production plant and to aquaculture facilities

#### **Leermateriaal**

Printout of the powerpoint presentation will be available during all classes.

Estimated cost of the printouts: 20 euro (included in fee that is paid in the beginning of the academical year).

#### **Referenties**

#### **Vakinhoudelijke studiebegeleiding**

Study guidance upon request by email or on appointment.

#### **Evaluatiemomenten**

periodegebonden en niet-periodegebonden evaluatie

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

Schriftelijk examen

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

Schriftelijk examen

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

Participatie, verslag

#### **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**

Out of 20:

20 points attributed to written exam

Students that do not attend the 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.