

## Physiology of Aquatic Organisms (I001579)

**Cursusomvang** *(nominale waarden; effectieve waarden kunnen verschillen per opleiding)*  
**Studiepunten** 3.0      **Studietijd** 75 u      **Contacturen** 30.0 u

### Aanbodsessies en werkvormen in academiejaar 2022-2023

|                |        |      |                          |                  |
|----------------|--------|------|--------------------------|------------------|
| A (semester 2) | Engels | Gent | practicum<br>hoorcollege | 15.0 u<br>15.0 u |
|----------------|--------|------|--------------------------|------------------|

### Lesgevers in academiejaar 2022-2023

|                  |      |                           |
|------------------|------|---------------------------|
| De Boeck, Gudrun | LA22 | Verantwoordelijk lesgever |
|------------------|------|---------------------------|

### Aangeboden in onderstaande opleidingen in 2022-2023

|   | stptn | aanbodsessie |
|---|-------|--------------|
| <a href="#">Master of Science in Aquaculture</a>  | 3     | A            |
| <a href="#">Uitwisselingsprogramma bio-ingenieurswetenschappen: landbouwkunde (niveau master-na-bachelor)</a> | 3     | A            |

### Onderwijstalen

Engels

### Trefwoorden

Physiology, aquatic organisms, fish.

### Situering

Animal physiology can be defined as the study of the function of animals and their constituent parts. The ultimate goal of this subject is to understand the mechanisms that operate in living organisms at all levels, ranging from cell to the whole organism. This goal is a very ambitious one, for each living organism, a single cell, is incredibly complex.

### Inhoud

1. Introduction: Central themes in animal physiology
2. Energetics of living cells
3. Membranes, channels, transport
4. Ionic and osmotic balance
5. Gas exchange and acid base balance
6. Hormonal control
7. Energy metabolism, size and temperature

### Begincompetenties

General biology, chemistry and biochemistry.

### Eindcompetenties

- 1 The student understands the structure and function of biomembranes.
- 2 The student understands the ionic and osmotic balances and gas exchanges.
- 3 The student understands the acquisition and use of energy.
- 4 The student is able to apply good laboratory practices.
- 5 The student is able to perform measurements on energy use (respiration rates, energy stores).

### 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

Hoorcollege, practicum

## Toelichtingen bij de didactische werkvormen

## Leermateriaal

## Referenties

Randall, Burggren, French: Eckert Animal Physiology: mechanisms and adaptations. WH Freeman and Company

Willmer, Stone, Johnston: Environmental Physiology of Animals. Blackwell Science

Moyes, Schulte: Principles of Animal Physiology. Pearson Education

Voet, Voet: Biochemistry. Wiley Press.

## 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, mondeling examen

## Evaluatievormen bij periodegebonden evaluatie in de tweede examenperiode

Schriftelijk examen, mondeling examen

## Evaluatievormen bij niet-periodegebonden evaluatie

Participatie

## Tweede examenkans in geval van niet-periodegebonden evaluatie

Examen in de tweede examenperiode is niet mogelijk

## Toelichtingen bij de evaluatievormen

## Eindscoreberekening

Out of 20:

20 point attributed to the oral exam with written preparation

Students that do not attend practical classes 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.