

## Sustainable Animal Husbandry (1002744)

**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**

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

stptn aanbodsessie

### Onderwijstalen

Engels

### Trefwoorden

Food producing animals, production systems, farm management, environment, animal welfare, life cycle analysis, circularity

### Situering

To acquire insight in technical management factors which determine sustainable animal husbandry of major farm animal species (cattle, pigs and poultry) within a legislation context (e.g. emission rights, production quota). Different technical parameters are integrated to evaluate the sustainability concept. Integration is based on principles of life cycle analysis which are used to assess sustainability of animal husbandry using a systems approach.

### Inhoud

#### Introduction

Overall introduction: situating animal husbandry – introduction to sustainability concept.

Assessment of sustainability on farm vs life cycle analysis

#### A PRODUCTION PARAMETERS

- Production & reproduction: physiological trade offs & limits to genetic selection
- Assessing trade off between production and reproduction from on farm technical (re) productivity parameters (case study)
- Live animal and carcass assessment

#### B ENVIRONMENT

- Overall introduction environment + assessing efficiency
- Nutrient emissions: nitrogen (nitrate & ammonia) and phosphorous
- Greenhouse gas emissions from livestock systems
- Livestock in a circular bio-economy

#### C. WELFARE / SAFETY / QUALITY

- Welfare: ethics, housing & transport of livestock
- Product safety - biosafety & on farm biocheck tool
- Animal product quality: improving sensorial & nutritional quality to add value

### Begincompetenties

Grondige kennis over veeteelt en dierlijke productiesystemen.

### Eindcompetenties

- 1 Insight in practical aspects of herd management.
- 2 Appoint main criteria within the concept of sustainable animal husbandry, such as animal welfare, product quality and the effect of animal production on the environment.
- 3 Applying the principles of life cycle analysis to compare animal husbandry systems both at a

global, regional and farm level.

4 Integrate the triad concept of sustainability to compare animal husbandry systems.

5 Critically integrate course concepts into new study cases.

#### **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, Zelfstandig werk

#### **Studiemateriaal**

Geen

#### **Referenties**

cfr. extensive reference list in the course material

#### **Vakinhoudelijke studiebegeleiding**

During the contact hours, the different topics are discussed under supervision of the lecturer.

Exercises involve calculations, case studies under supervision of the lecturer, field work, excursions and seminars by 'field experts'.

#### **Evaluatiemomenten**

niet-periodegebonden evaluatie

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

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

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

Mondelinge evaluatie, Werkstuk

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

Examen in de tweede examenperiode is mogelijk

#### **Toelichtingen bij de evaluatievormen**

- During the semester, various case studies are proposed to the students. Each student individually prepares 4 of these cases (at least 1 related to each of the parts I to III of the course) in a written report (+/- 5 pages/case). Some cases concern quantitative assessments.
- Case report deadlines are throughout the semester (in agreement with the students).
- Cases are discussed orally with the responsible supervisor of the corresponding part of the course. This can be organised in conjunction with the submission deadlines throughout the semester or during the last week of the semester (in agreement with the students).

#### **Eindscoreberekening**

5/20 per case - 50% on the written report, 50% on the oral discussion

De examiner kan de student die zich onttrekt aan niet-periodegebonden evaluaties voor dit opleidingsonderdeel niet-geslaagd verklaren.