

## Animal Production Systems (I700259)

**Course size** *(nominal values; actual values may depend on programme)*

**Credits 6.0**

**Study time 180 h**

**Course offerings in academic year 2024-2025**

A (Year)

Dutch

Gent

**Lecturers in academic year 2024-2025**

Ingels, Katrijn

LA22

staff member

Degroote, Jeroen

LA22

lecturer-in-charge

De Smet, Stefaan

LA22

co-lecturer

Hostens, Miel

LA22

co-lecturer

**Offered in the following programmes in 2024-2025**

**crdts**

**offering**

[Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture  
\(main subject Plant and Animal Production\)](#)

6

A

**Teaching languages**

Dutch

**Keywords**

Pig farming, cattle farming, dairy farming, beef cattle, farm management, animal welfare, animal health, animal genetics, sensor technology.

**Position of the course**

The goal of this course is to provide insight into the scientifically based management of integrated pig and cattle activities on farms to optimize zootechnical and economic performance, taking into account environmental impact and animal welfare.

**Contents**

In this course, the parameters important for the profitability of pig farming, as well as dairy and beef cattle farming are covered, taking into account product quality, environmental impact, and animal welfare:

Piglet production, rearing of piglets to young sows, rearing of boars and the use of AI (Artificial Insemination), selection and breeding programs, production of fattening pigs, healthcare and hygiene;

Rearing of young cattle, selection and breeding programs (overview of the main cattle breeds and use of crossbreeding, organization of cattle improvement), welfare and health of cattle, drafting and monitoring of farm protocols;

Introduction to poultry farming: structure of the production chain, broiler production, egg production.

In addition to the zootechnical aspects, attention is also given to the end product, namely carcass and meat quality for pig and beef production, and the quality and quality deviations of milk for dairy production.

During the exercises, visits are made to practical farms, allowing students to test the theory against practice. In addition to this, students will also immerse themselves in the sector's professional literature to gain a better understanding of the various actors in animal production, current affairs, and future trends.

**Initial competences**

This course builds on certain final competences of the course 'Animal Physiology', 'Animal Digestion Physiology' and 'Animal Reproductive Physiology'.

## Final competences

- 1 Be able to act properly as a manager/advisor in the field of pig and cattle production
- 2 Have in-depth knowledge of both genetics (breeds, crossbreeds) and selection techniques in pigs and cattle.
- 3 Have a knowledge of the prevention and recognition of the most common diseases in pig and cattle farming.
- 4 Have a good knowledge of the farm systems and the management of pig, cattle and poultry farming.
- 5 Being able to assess farm systems in the context of environmental impact, sustainability and animal welfare
- 6 Explain the characteristics that determine the quality of the final animal products and use these when comparing products of widely varying quality.

## 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

Excursion, Lecture, Independent work

## Study material

Type: Slides

Name: ppt slides  
Indicative price: Free or paid by faculty  
Optional: no  
Language : Dutch  
Number of Slides : 400  
Oldest Usable Edition : 2023  
Available on Ufora : Yes  
Online Available : No  
Available in the Library : No  
Available through Student Association : No

Type: Reader

Name: course notes  
Indicative price: Free or paid by faculty  
Optional: no  
Language : Dutch  
Number of Pages : 200  
Oldest Usable Edition : 2023  
Available on Ufora : Yes  
Online Available : No  
Available in the Library : No  
Available through Student Association : No

Type: Excursion

Name: visit ILVO-animal departement, AgriVet and slaughterhouse  
Indicative price: Free or paid by faculty  
Optional: no

## References

## Course content-related study coaching

Continuous opportunity for questions

## Assessment moments

end-of-term and continuous assessment

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

Written assessment with multiple-choice questions, Written assessment with open-ended questions

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

Written assessment with multiple-choice questions, Written assessment with open-ended questions

**Examination methods in case of permanent assessment**

Written assessment with multiple-choice questions, Participation

**Possibilities of retake in case of permanent assessment**

examination during the second examination period is not possible

**Extra information on the examination methods**

Written exam.

Possible exam questions are partially provided by the students.

**Calculation of the examination mark**

Theory: 75% - Exercises: 25%

NPGE after 1st semester: 50% of the score

PGE after 2nd semester: 50% of the score

The assessment and determination of the final grade are based on the mathematical average according to the assigned coefficients. If one does not participate in the evaluation of one or more components, or if one scores less than 8/20 (not rounded) on one or more components, passing the course unit is no longer possible. If the final score calculation still amounts to 10 (or more) out of 20, it will be adjusted to 9/20.