

## 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 2023-2024**

A (Year)

Dutch

Gent

**Lecturers in academic year 2023-2024**

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 2023-2024**

**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 (meat and milk), farm management and production control, animal welfare and health, Sensor technology

**Position of the course**

Give insight into the importance of scientifically based management of the integral pig and cattle activities for a zootechnical, economic, ecological and ethological optimization. The student(s) will have a clear insight into the possibilities offered by the management, but he/she must also be aware of the limitations of the current possibilities due to the (still) limited knowledge due to the enormous complexity of this biological system

**Contents**

In this course, the parameters that are important for the profitability of pig farming and dairy and meat farming, taking into account qualitative, ecological and ethological consequences:

- piglet production, rearing of piglets to young sows, rearing of bears and the use of AI, selection, production of fattening pigs, health care and hygiene.
- rearing of young cattle, selection (overview of the main cattle breeds, policy of cattle and the organizations of cattle improvement), insight into the welfare and health of cattle, drawing up and following farm protocols

In addition to the zootechnical aspects, attention will also be paid to the final product, namely meat (commercialization, quality) as regards to pig production and beef cattle and the quality and quality deviations of milk as regards to dairy production.

During the exercises, visits are made to practice companies so that the students can test the theory against practice. In addition to these visits, students can also participate in seminars on pig and cattle farming and speakers are invited to share their experiences from practice.

**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 Being able to independently propose and elaborate a breeding goal and can determine how many animals of each breed/crossing must be kept in order to keep the pig farm operational. In addition, he/she also has insight into the cost price of the developed crossing
- 4 Have a knowledge of the prevention and recognition of the most common diseases in pig and cattle farming.
- 5 Have a good knowledge of the farm systems and the management of pig and cattle farming.
- 6 Being able to assess farm systems in the context of environmental impact, sustainability and animal welfare
- 7 Assess the quality of the produced animal products

#### **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

#### **Learning materials and price**

Notes course "Animal production systems Part 1 2019"; 480 pages

Notes course "Animal production systems Part 2 2016"; 600 pages

powerpoint presentations

#### **References**

#### **Course content-related study coaching**

#### **Assessment moments**

end-of-term and continuous assessment

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

Oral assessment, Assignment

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

Oral assessment, Assignment

#### **Examination methods in case of permanent assessment**

Oral assessment

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

examination during the second examination period is possible

#### **Extra information on the examination methods**

Oral with written preparation. The exam asks a question about an excursion

#### **Calculation of the examination mark**

Theory: 80%

Exercises: 20%

Students need to participate to all exams/assignments to succeed; for the aspects of permanent as well as non-permanent evaluation. The end assessment is a weighted average of the of the two subscores: 80% oral exam, 20% personal work (exercises).

If a subscore is less than 8/20 (not rounded-off), it is not possible to pass this course. In this case, if the weighted score is 10 or more, the final score will be 9/20.