Course Specifications
Valid as from the academic year 2016-2017

Course
Plant and Crop Sciences 1 (I700171)

Lecturers in academic year 2018-2019
Haesaert, Geert
LA21 lecturer-in-charge

Course offerings and teaching methods in academic year 2018-2019
A (semester 1) Dutch
excursion 12.0 h
fieldwork 6.0 h
lecture 36.0 h
group work 6.0 h

Offered in the following programmes in 2018-2019
Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Plant and Animal Production) 4 A
Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Tropical Plant Production) 4 A

Teaching languages
Dutch

Keywords
Agriculture, crop production, crop husbandry

Position of the course
The courses plant and crop sciences I and II are the final parts of crop production. The crops discussed in this course cover approximately 95% of the agricultural area in Belgium; knowledge about the management of this crops is essential for a Master of Life Sciences in Agronomy. Botanical and phytotechnical aspects of selected crops are discussed.

Contents
Plant- and crop science I:
1. Small grain cereals and maize:
   Taxonomy, botanical characteristics, crop management (rotation, fertilisation, varieties, quality issues, e.g.) and crop protection of winter wheat and maize as case studies.
2. Root crops
   Taxonomy, botanical characteristics, crop management (rotation, fertilisation, varieties, quality issues, e.g.) and crop protection of sugar beet as case study.
3. Oil and fiber crops
   Taxonomy, botanical characteristics, crop management (rotation, fertilisation, varieties, quality issues, e.g.) and crop protection of Canola and flax as case study.
4. Grassland
   Taxonomy, botanical characteristics, crop management (rotation, fertilisation, varieties, quality issues, e.g.) and crop protection of grassland and grass species.
5. Students must be develop an international vision on crop sciences by way of an international study trip.

Initial competences
The course plant- and crop science is based on certain final competences of the courses 'morphology and anatomy of higher plants', 'plant physiology', 'phytotechnics and ecophysiology', crop protections, plant breeding, soil management and plant genetics.

(Approved)
Final competences
1. To be able to develop a crop husbandry system of crops mentioned above.
2. To be able to assist growers and to solve crop management problems
3. To design a report and presentation on crop topics as harvest, quality analysis, varietal performance.
4. To be able to develop an international vision on crop production.
5. To be able to manage the complexity of a crop production system.

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, group work, lecture, fieldwork

Extra information on the teaching methods
Courses are illustrated with up-to-date slides
Group task: data processing and statistical analysis of wheat varietal experiment; analysing of wheat samples on quality aspects.
Field work: observation and interpretation of field experiments
Excursion: visits of farms and companies.

Learning materials and price
Syllabus

References
Scientific literature, research results, trade journals, specialized websites

Course content-related study coaching
Possibilities to ask questions on a regular base
Study progress tests during practicum

Evaluation methods
end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period
Oral examination

Examination methods in case of periodic evaluation during the second examination period
Oral examination

Examination methods in case of permanent evaluation
Written examination, report

Possibilities of retake in case of permanent evaluation
examination during the second examination period is possible

Extra information on the examination methods
Theory: oral examination with open questions
Praticum: reports, permanent evaluation and final test (final test can be done again in case of second examination period)

Calculation of the examination mark
Theory: 75 %
Praticum: 25%

(Approved)