Sustainable production systems (I700179)

Valid as from the academic year 2016-2017

Course Specifications

Course size (nominal values; actual values may depend on programme)
Credits 3.0  Study time 75 h  Contact hrs 36.0 h

Course offerings and teaching methods in academic year 2019-2020
A (semester 2)  Dutch  seminar: coached exercises 14.0 h
guided self-study 4.0 h
self-reliant study activities 4.0 h
group work 14.0 h

Lecturers in academic year 2019-2020
Nevens, Frank  LA21  lecturer-in-charge

Offered in the following programmes in 2019-2020
credits offering
Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Horticulture) 3 A
Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Plant and Animal Production) 3 A
Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Tropical Plant Production) 3 A

Teaching languages
Dutch

Keywords
Transition thinking; sustainable development; agriculture and food systems.

Position of the course
Sustainable development is increasingly being recognised as a precondition for the liveability of societies and for the patterns of production and consumption that they generate. Also agriculture- and food sectors will be obliged to conformise with a sustainability realm and hence they may have to change drastically, if they want to remain competitive and profitable and keep a ‘licenses to produce’.

Contents
Sustainable development: generic meaning and specific application for agriculture and food
Transitions/system innovations as essential approaches to realise sustainable development
Future visions for sustainable societies and for agriculture and food related activities that are part of them
Developing competencies that are required for effective contributions to processes of sustainable development
Examples of sustainable development in agriculture and food

Initial competences
The basics of relevant components of the practices in agriculture and food (plant production, animal production, farm economy and farm management, food production, processing and consumption.
A general interest in the concept of sustainable development and basic competencies such as critical sense, creativity and active engagement.

Final competences

(Approved)
1 Acquiring insight in the concept of sustainable development
2 Acquiring insight in the meaning and practice of systems analysis and systems thinking in service of sustainable development.
3 Acquiring insight in the meaning of ‘transition’ as guidance for sustainable development; being capable of applying the transition framework in the search for sustainable solutions.
4 Understanding inter- and transdisciplinary working fashions and being able of developing pratice examples.
5 Willing and being able to foresighting desirable systems as opportunities for sustainable development.
6 Being able of deploying theoretical approaches to sustainable development into applications for the practices of agriculture and food.

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
Guided self-study, group work, self-reliant study activities, seminar: coached exercises

Extra information on the teaching methods
This course deploys a 'flipped and active classroom' philosophy: theoretical knowledge is offered by online video clips or other easily accessible material that students are expected to study by themselves. During the actual classroom time (seminars), the theory is applied in interactive working fashions; hence in a 'learning by doing' approach. Diverse formats of interaction are applied, all of them stimulating active participation and active learning.
Excursions can be organised (also on students' initiative)

Learning materials and price
Online videoclips, made by responsible teacher
Existing short texts/videos/images on sustainable development in agriculture and food
Examples of good practices (also supplied by students themselves)
Concrete results of the interactive work during the seminars

References

Course content-related study coaching
Permanent possibility for question-answer interaction
Interactive seminars
Supporting texts (apart from the learning materials)

Evaluation methods
end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period
Written examination with open questions, assignment

Examination methods in case of periodic evaluation during the second examination period
Written examination with open questions, assignment

Examination methods in case of permanent evaluation
Participation

Possibilities of retake in case of permanent evaluation
examination during the second examination period is not possible

Extra information on the examination methods
Written exam: open questions on the theory supplied in the videoclips
Personal work: individual presentation (in a free format) of the compilation of assignments indicated in the interactive seminars
Participation: assessment of presence and active contribution to the interactive seminars

Calculation of the examination mark
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 three subscores: 40% written exam, 40% personal work, 20% participation. A score of less than 7/20 for a subscore entails that the total score can not be higher than the lowest 'not-passed' quotation (9/20).