GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2025-2026

Tropical Crop Production (I002731)

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

Credits 4.0 **Study time 120 h**

Course offerings in academic year 2025-2026

A (semester 2) English Gent

Lecturers in academic year 2025-2026

de la Pena, Eduardo LA21 lecturer-in-charge

Offered in the following programmes in 2025-2026	crdts	offering
Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Horticulture)	4	A
Master of Science in Bioscience Engineering: Agricultural Sciences	4	A
Exchange Programme in Bioscience Engineering: Agricultural Sciences (master's level)	4	A
Exchange Programme in Bioscience Engineering: Land and Forest management (master's level)	4	A

Teaching languages

English

Keywords

Plant production, tropical crops, farming systems, food crops, non-food crops

Position of the course

Tropical crop production is of immense importance on a global scale as some crops are major export commodities (e.g., coffee, cacao, banana, etc). Also, tropical crops play a significant role in global food security, providing a wide range of essential nutrients and food products and contributing to the livelihoods of millions of people, including smallholder farmers and laborers, Last but not least, tropical crops have significant environmental and cultural importance, shaping landscapes, biodiversity, and cultural practices worldwide.
Tropical Crop Production will provide students with the fundamentals of major tropical crops and their production systems. The course cover topics such as crop physiology, breeding, agronomy and management practices. Emphasis is placed on the unique challenges of tropical crop production, including soil fertility, pest and disease management, and climatic factors. Students will also learn about the social and environmental challenges in these types of systems. Practical sessions allow getting acquainted with specific techniques in plant (crop) propagation.

Contents

The course covers lectures on the biology, physiology, and agronomy of crops commonly grown in tropical regions. Selected examples are discussed and specific production methods, constraints and problems, and solutions are addressed. Food (millet, sorghum, groundnut, yam, cassava,...), non-food crops (cacao, coffee, tea,...), and fruit crops *(Citrus* spp., mango, papaya, avocado) in different ecologies are presented and discussed. The course also covers the environmental factors that affect crop growth and the techniques used to manage crops. An important part of the course is related to addressing sustainability issues.
The course integrates classic lectures, guest lectures led by experts, practical sessions, and an interactive discussion session (preceded by individual work).

Initial competences

There are no specific requirements.

Final competences

1 The student has insight in tropical crop problems and techniques.
2 Describe key crops and cropping systems in the tropics
3 Recognize farming systems and cropping practices in different geographical contexts in tropical and subtropical areas

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

Lecture, Practical, Independent work

Study material

Type: Slides

Name: Slides of the course Tropical Crop Production
Indicative price: Free or paid by faculty
Optional: no
Language : English
Number of Slides : 350
Oldest Usable Edition : 2024
Available on Ufora : Yes
Online Available : Yes
Available in the Library : No
Available through Student Association : No
Additional information: Along with the slides (PowerPoint slides), a selection of articles, policy notes, and relevant documentation is provided.

References

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Course content-related study coaching

Permanent through Ufora. Personal contacts with lecturer and assistant.

Assessment moments

end-of-term and continuous assessment

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

Written assessment with open-ended questions, Assignment

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

Written assessment with open-ended questions, Assignment

Examination methods in case of permanent assessment

Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

The end-of-term assessment consists of a written assessment with open-ended questions on the different parts of the course.

Calculation of the examination mark

Final exam with open questions 80%; Assignment 20%