Module title			Abbreviation
General Biology of Economic Plants from Food and Forage			07-LMC-BIO1-092-m01
Module coordinator		**Module offered by**	
holder of the Chair of Plant Physiology and Biophysics		Faculty of Biology	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
7	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	undergraduate	--	

Contents

The first part of the winter semester course will discuss the plant cell, the smallest unit of the plant organism, starting with its macroscopic structure before moving on to its microscopic structure. The course will point out differences and similarities between prokaryotic cells (bacteria, archaebacteria) and eukaryotic cells (animals, plants). In the second part of the winter semester course, students will acquire the fundamental knowledge necessary to understand the form (anatomy, morphology and cytology) and function of plant organisms. The summer semester course will introduce students to the fundamental principles of botany, using the example of food and fodder crops. Taking into account their taxonomy, morphology and cytology, the course will discuss physiological and genetic aspects of selected crops and their compounds as well as aspects related to the breeding of these crops. In this context, the course will point out differences that may be used, for example, for the microscopic identification of a variety of food and fodder crops.

Intended learning outcomes

In the winter semester, students have acquired a knowledge of the structure of plant cells and their (biological) macromolecules as well as of the specific characteristics of the intracellular and extracellular structures of plant cells. In the summer semester, students have acquired the following knowledge and skills: - Fundamental knowledge of the distinguishing characteristics, genetics and physiology of representatives of the plant kingdom with special attention to crops. - Fundamental knowledge of major anatomical and morphological plant traits as well as of the compounds of food and fodder crops. - Fundamental knowledge of the components and functioning of microscopes. - Fundamental preparation skills. - Basic familiarity with methods for the microscopic examination of crops. - Fundamental skills in the interpretation of macroscopic and histologic plant preparations by light microscopy.

Courses (type, number of weekly contact hours, language — if other than German)

This module comprises 2 module components. Information on courses will be listed separately for each module component.

- 07-LMC-BIO1-1-092: V + V (no information on SWS (weekly contact hours) and course language available)
- 07-LMC-BIO1-2-092: V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.

Assessment in module component 07-LMC-BIO1-1-092: From the Plant Cell to the Plant Organism From the Plant Cell to the Plant Organism

- 2 ECTS, Method of grading: numerical grade
- written examination (approx. 60 minutes)

Assessment in module component 07-LMC-BIO1-2-092: General Biology and Microscopy of Economic Plants, and Microscopic Analysis of Food and Forage General Biology and Microscopy of Economic Plants, and Microscopic Analysis of Food and Forage

- 5 ECTS, Method of grading: numerical grade
- practical examination (approx. 2 to 3 hours, ungraded) and written examination (approx. 60 minutes)

Allocation of places

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Additional information

Additional information will be listed separately for each module component.

- 07-LMC-BIO1-2-092: --
- 07-LMC-BIO1-1-092: Will include 3 teaching units on photosynthesis.

Workload

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Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Bachelor' degree (1 major) Food Chemistry (2009)