

Discipline	<i>PLANT PRODUCTION, PART 3 (FODDER CROPS)</i> code: 39 summer semester		
Specialty	AGRONOMY		
ECTS credits: 5	Form of assessment: Continuous assesment		
Lecturer	Prof. Dragomir Plamenov, PhD Room 429 Phone: +359 52 383 670 E-mail: dplamenov@tu-varna.bg		
Department	PLANT PRODUCTION		
Faculty	<i>FACULTY OF MECHANICAL ENGINEERING AND TECHNOLOGIES</i>		
<p>Annotation:</p> <p>The course "Plant production – part 3 (Fodder crops)" aims at studying forage crops. They produce rough and juicy feed for farm animals. They are annual cereal and leguminous forage grasses, perennial grain and leguminous forage grasses, forage root crops and silage crops, pumpkin crops. The aim of the course is to provide students with sufficient information to know the basic fodder crops and their cultivation technology. Structurally determining issues will be the biological characteristics of the individual plant species in close connection with the practice: type of development, type of inflorescence, fruit, seed and breeding patterns. Emphasis will be placed on the most important aspects of agro-technology: precursors, soil preparation, sowing, weed control, pests and diseases, harvesting.</p>			
CONTENTS:			
Training Area		Hours lectures	Hours seminar exercises

Annual cereal fodder crops: sudanka (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Annual cereal forage crops: silage and green feed corn, sugar sorghum. Fodder and semi-sugar beets.	2	
Annual leguminous forage crops: fenugreek (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Annual leguminous fodder crops: fodder pea (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Annual leguminous fodder crops: forage legume (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Perennial grain fodder crops - general characteristics, peculiarities in agrotechnics.	3	
Perennial cereal forage crops: pasture (English), multi-cut (Italian, multi-flowered) ryegrass.	2	
Perennial cereal fodder crops: ryegrass, hedgehog's head.	2	
Perennial cereal forage crops: meadow fescue, red fescue.	2	
Perennial cereal forage crops: meadowsweet, tall (French) ryegrass, timothy.	2	
Perennial leguminous forage crops: alfalfa (origin and significance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	3	
Perennial leguminous forage crops: asparagus (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Perennial leguminous forage crops: zvezdan (origin and meaning, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Perennial leguminous forage crops: clover (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
General morphological characteristics, taxonomy and varieties/hybrids of annual forage crops.		4
Acquaintance with the characteristic morphological features of annual fodder crops from the Poaceae family.		2

Acquaintance with the characteristic morphological features of annual fodder crops from the Fabaceae family. Distinguishing common and sand vetch.		2
Acquaintance with the characteristic morphological features of annual forage crops from other botanical families.		3
General morphological characteristics, taxonomy and varieties/hybrids of perennial forage crops.		4
Acquaintance with the morphological features of the most common perennial wheat meadow grasses with a view to their differentiation - inflorescence and seeds. Determination of perennial wheat grasses after grading (sweeping).		4
Getting to know the morphological features of the most common perennial leguminous grasses with a view to their differentiation - leaves, seeds and fruits. Determination of perennial legume grasses at flowering time. Getting to know the types of clover.		4
Rules for the composition and sowing of grass mixtures.		3
Meadows and grasslands – meaning, types of meadows and grasslands, botanical composition and plant associations.		2
Meadows and pastures - condition, improvement and use.		2
TOTAL: 60 h	30	30