

Discipline	<i>PLANT PRODUCTION, PART 1 (GRAIN CROPS)</i> code: 30 winter semester		
Specialty	AGRONOMY		
ECTS credits: 6	Form of assessment: Exam		
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Department	PLANT PRODUCTION		
Faculty	<i>FACULTY OF MECHANICAL ENGINEERING AND TECHNOLOGIES</i>		
Annotation: The course "Plant Production – part 1 (Cereal crops)" has as object the study of cereal crops. They are mainly grown for grain used for human food and feed for farm animals. This group of crops includes: winter grain cereals, spring grain cereals and grain legumes. The aim of the discipline is to provide students with sufficient information to know the basic cereals and the technology of their cultivation. 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.			
CONTENTS:			
Training Area		Hours lectures	Hours seminar exercises

Cereal crops - general characteristics.	2	
Winter cereal crops: wheat (origin and significance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	3	
Winter cereal crops: barley (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Winter cereal crops: rye (origin and meaning, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Winter cereals: triticale (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Spring cereals: oats (origin and significance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Spring cereal crops: corn (origin and significance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Spring cereal crops: rice (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Spring cereal crops: sorghum (origin and meaning, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Spring cereal crops: millet (origin and meaning, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	1	
Cereal and leguminous crops - general characteristics.	2	
Cereal and leguminous crops: beans (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Cereal and leguminous crops: soybean (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Cereal and leguminous crops: chickpea (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Cereal and leguminous crops: lentils (origin and importance, morphology and biological requirements, peculiarities in agrotechnics, varietal composition).	2	
Cereals (cereals): general morphological and phenological characteristics.		1
Evaluation of embryonic roots, sprout, transplanting materials. Diary.		1
Calculation of sowing rate for soft and hard wheat.		1
Sowing winter cereals.		2

Wheat - genetic grouping in genus Triticum; classification of wheat types; morphology; morphological differences of common and durum wheat; varieties of soft and hard wheat.		3
Barley - morphology; botanical feature; morphological characters distinguishing barley varieties.		2
Rye - botanical characteristic; classification; morphological characters and their variability.		2
Triticale - receiving; morphological features.		2
Oats - morphological features; classification.		2
Assessment of cropping density at SZK. Assessment of the condition of crops after wintering. Biological mining.		2
Maize - morphological features; subspecies classification; classification of maize hybrids.		3
Sorghum - morphology; morphological characters and their variability; classification. Millet - morphology; classification.		2
Rice - morphological features; morphological characters and their variability; classification; qualitative characteristic.		1
Cereal and leguminous crops (ZBC). General morphological and phenological characteristics.		3
Morphological features of individual types of ZBK (beans, soybeans, lentils, chickpeas). Systematics.		3
<b>TOTAL: 60 h</b>	<b>30</b>	<b>30</b>