

SYLLABUS (MODULE-ERASMUS+)

Course/module (as specified in the approved curriculum for the field of study) Seed Production and Technology		ECTS 8	Catalogue number HORT 1.1
Name in Polish Produkcja i technologia nasion			
Head of course/module Prof. Roman Holubowicz			
Unit(-s) providing the course/module (Institute/Department) Department of Plant Pathology, Seed Science and Technology			
Field of study Horticulture	Level Second, English	Profile General, academic	Semester winter
TYPE OF CLASSES/LECTURES AND THE NUMBER OF HOURS (organised classes/lectures and self-study)			
Type of studies: full-time		Type of studies: extramural	
- lectures	45	- lectures	
- practical total	50	- classes	
- laboratory practical	20P	-	
- project based practical	30	-	
- Other – tutored	15P	-	
- self-study	90	- Self-study	
Total number of hours:		200	Total number of hours:
OBJECTIVE OF COURSE/MODULE			
Student should learn basic information about seed production and technology			
TEACHING METHODS Lectures, classes, films			
LEARNING OUTCOMES		Reference to field outcomes	Reference to area outcomes
Knowledge	E1. Student has a profound knowledge concerning the seed production of the most important species of horticultural and agricultural crops. He/she understands the genetic bases of new cultivars of cultivated crops. He/she properly evaluates the role of control in seed production.	O2A_W04 O2A_W05 O2A_W07 O2A_W10	R2A_W01 R2A_W03 R2A_W04 R2A_W05 R2A_W06 R2A_W08
	E2. He/she knows how to carry out harvest, cleaning and drying of sowing material to get seeds of high quality and to prepare sowing material for trade.		
	E3. Student knows the principles of functioning of an international seed market and the most important countries producing sowing material.		
	E4. He/she understands rules of the author's right and intellectual resources management.		
Skills	E5. Students himself/herself seeks out, searches, carries out, designs, analyzes and evaluates the property of the seed sector task.	O2A_U01 O2A_U03 O2A_U04 O2A_U06 O2A_U10	R2A_U01 R2A_U04 R2A_U05 R2A_U10
	E6. He/she himself/herself evaluates economic circumstances concerning seed production.		
	E7. He/she knows elements of the seed market, can analyse them, in terms of a given country, as well as preparing the needed documents connected with seed trade.		
Social competences	E8. He/she can work in a team and is aware of thinking in economic and ethical ways when taking decisions concerning seeds.	O2A_K02 O2A_K03 O2A_K04 O2A_K05 O2A_K07	R2A_K02 R2A_K03 R2A_K04 R2A_K05
	E9. He/she is aware of social, professional and ethical responsibility for seed production.		
	E10. He is ready to work for group, organization and institution dealing with seeds.		

Methods to verify learning outcomes Exam, test, practical evaluation	Outcome Reference Numbers E1-10
TEACHING CONTENT	
<p>Content of lectures: Basic terms and definitions. History. Legal bases. Standards in seed sector. Organization in the world and in Poland. Seed sector in France. Drying and cleaning seeds. Control in seed sector. Importance of seed field certification. Agro-technique of garden and farm seed crops. Importance of natural factors in seed production. Principles of seed trade.</p> <p>Content of exercises: Morphology of vegetable seed stalks. Drying and cleaning seeds. Seed threshing. Seed production of selected annual, biannual and greenhouse flowers. Use of seeds in industry.</p> <p>Project: select a foreign garden seed company to co-operate with</p>	
Forms and criteria for passing of course/module Written examination, tests, project	Percentage of final mark 100 % - exam
LIST OF LITERATURE	
<p>Basic literature</p> <p>Copeland L.O., McDonald M.B.1995. Principles of Seed Science and Technology. Chapman and Hall, Minneapolis. .</p> <p>McDonald M.B., Copeland L.O.1997. Seed Production. Principles and Practices. Chapman and Hall, Minneapolis</p> <p>Hołubowicz R. 2016. Seed Production and Technology. Wyd. UP w Poznaniu.</p>	