

Polish name of the course:	Technika rolnicza	ECTS	3
English name of the course:	Agricultural technologies for organic farming		
Name of study	Ekologiczne rolnictwo i produkcja żywności		

Language: English		Study level: I	
Study status: <input checked="" type="checkbox"/> full-time <input type="checkbox"/> part-time	Status of the course: <input type="checkbox"/> basic <input checked="" type="checkbox"/> professional	<input checked="" type="checkbox"/> obligatory <input type="checkbox"/> elective	Semester: 3 <input checked="" type="checkbox"/> winter semester <input type="checkbox"/> spring semester
description applies from the academic year (year):		2019/2020	Catalog number : ROL-ER-1S-03Z-06

Coordinator of the course ⁵	Dr inż. Magdalena Dąbrowska		
Teachers :	Dr inż. Magdalena Dąbrowska		
Conducting unit:			
Unit ordering classes :			
Goals and description of the course:	<p>Goal: to familiarize students with the principles of organic farming and techniques used in organic plant and animal production.</p> <p>Description: Issues of environmental protection and nature protection in an organic farm. Development, state and social functions of organic farming. Consequences of agriculture intensification. Selected legal regulations. Soil cultivation methods recommended in ecological crop cultivation systems, increasing the content of humus. Restrictions of wind erosion. The role and importance of the soil environment. Directions and technologies of plant and animal production in organic farming. Animal welfare in the aspect of ecological farming. Methods of mechanical limitation of weeds. Methods of mechanization of plant harvesting processes. Crop rotation in organic farming. Fertilization in organic farming. Biodynamic agriculture. Plant protection. Organic cultivation of cereals. Renewable energy sources. The impact of organic farming on the nutritional and health-promoting value of food. National and international rural development programs related to organic production and protection of genetic resources of plants and animals.</p>		
Didactic forms, number of hours :	W - lecture, hours15... C - auditorium exercises, hours ..15..... LC - laboratory exercises, hours PC – design (project) exercises, hours TC - field exercises, hours ZP - apprenticeships, hours		
Teaching methods :	Lecture, classes, discussion		
Formal requirements and initial assumptions :	Basics of plants and animals productions.		
Learning outcomes :	Knowledge: W1 - knows and understands the basic methods, techniques and technologies as well as tools and materials allowing for the maximization of yield and its quality in conditions organic farming W2 – has general knowledge of ecological breeding of basic livestock species W3 – has a basic knowledge of environmental protection, the impact of organic agricultural production on the condition of the natural environment and the quality of organic food	Skills: U1 – can acquire knowledge in the field of organic farming from various sources, analyze information and apply U2 - identifies and analyzes phenomena and interactions between the achievements of natural sciences, especially in the field of organic farming, including organic food	Competence : K1 – is aware of the importance of social, professional and ethical responsibility for ecological production of high-quality food, animal welfare and shaping and condition of the natural environment
The verification way of learning outcomes :	W1, W2, W3 - final exam (test), U1, U2, K1 - reports		
Form of documentation achieved learning outcomes:	Personal student assessment cards, content of questions, reports.		
Elements and weights with the impact on the final grade:	Exam (75%), reports (25%)		
Place for course:			
	<ul style="list-style-type: none"> Literatura podstawowa i uzupełniająca: 		

- Bavec F., Bavec M.: Organic production and use of alternative crops. Wyd. Taylor&Francis. 2004.
- Chojnacki J.: Technologia pielęgnacji i ochrony roślin. Technologia prac maszynowych w rolnictwie ekologicznym. Zbiorowa pod redakcją Dulcet E., Fleszara J., Wydawnictwo Uczelniane Politechniki Koszalińskiej. 2009
- Fragstein unn Niemsdorf P., Kristiansen P.: Crop agronomy in organic agriculture. Organic agriculture a global perspective. Zbiorowa pod red. Kristiansen P., wyd CSIRO publishing 2006.
- Górny M., Ekorozwój i rolnictwo ekologiczne. Rolnictwo ekologiczne od teorii do praktyki. Zbiorowa pod red. Sołtysiak U. Wyd. Stowarzyszenie EKOLAND i Stiftung LEBEN&UMWELT, 1993
- Górny M., Rola zadrzewień w krajobrazie rolniczym. Rolnictwo ekologiczne od teorii do praktyki. Zbiorowa pod red. Sołtysiak U. Wyd. Stowarzyszenie EKOLAND i Stiftung LEBEN&UMWELT, 1993
- Hoerning B.: Organic livestock husbandry and breeding. Organic agriculture a global perspective. Zbiorowa pod red. Kristiansen P., wyd CSIRO publishing 2006.
- Kucińska K.: Uwarunkowania rozwoju rolnictwa ekologicznego w Polsce. Postepy Nauk Rolniczych nr 329, z.4., 2007.
- Kucińska K.: Wykłady kursu e-learning „Rolnictwo ekologiczne”, platforma SGGW
- Lampkin N.: Organic farming. Wyd Old Pond Publishing. 2002.
- Letourneau D., van Bruggen A.: Crop protection in organic agriculture. Organic agriculture a global perspective. Zbiorowa pod red. Kristiansen P., wyd CSIRO publishing 2006.
- Lund V.: Animal welfare and ethics In organic agriculture. Organic agriculture a global perspective. Zbiorowa pod red. Kristiansen P., wyd CSIRO publishing 2006.
- Metera D., Sakowski T.: Podręcznik rolnictwa ekologicznego. Wyd. CDR w Brwinowie, oddział w Radomiu, 2008
- Rozporządzenie WE nr 834/2007 i pozostałe dot. RE.
- Siebeneicher G. E., 1997: Podręcznik rolnictwa ekologicznego, PWN
- Tyburski J., Żakowska-Biemans S.: Wprowadzenie do rolnictwa ekologicznego. Wyd. SGGW. 2007.
- Ustawa o Rolnictwie ekologicznym z dnia 25. 06.2009r.
- Zbytek Z., Talarczyk W.: Technologia uprawy roli. Technologia prac maszynowych w rolnictwie ekologicznym. Zbiorowa pod redakcją Dulcet E., Fleszara J., Wydawnictwo Uczelniane Politechniki Koszalińskiej. 2009
- Zbiorowa. Nowe rozporządzenia UE w sprawie żywności ekologicznej i rolnictwa: (WE) nr 834/2007, Konekst, Ocena, Interpretacja. Wyd. IFOAM EU Group. 2009
- . Research on organic agriculture In the Netherlands. Wyd. Univ. Wageningen. 2010.
- Zbiorowa, pod red Rembiałkowska E.: The impact of organic production methods on the vegetable product quality. Agencja reklamowo wydawnicza A Grzegorzczak, 201

Comments -

Quantitative indicators characterizing the module / course:

Estimated total number of student work hours (contact and own work) necessary to achieve the expected learning outcomes – based on this, complete the ECTS field:	
The total number of ECTS points that a student obtains in classes requiring direct participation of academic teachers or other persons conducting classes (consultations, cooperation with a supervisor):	ECTS

Table of compliance of the directional learning outcomes with the effects of the course:

effect category	Learning outcomes for the course:	Reference to effects for the study program for the field of study	The impact of the course on the field effect *)
Knowledge –W1	knows and understands the basic methods, techniques and technologies as well as tools and materials allowing for the maximization of yield and its quality in conditions organic farming	K_W08	3
Knowledge –W2	has general knowledge of ecological breeding of basic livestock species	K_W09	2
Knowledge –W3	has a basic knowledge of environmental protection, the impact of organic agricultural production on the condition of the natural environment and the quality of organic food	K_W10	3
Skills –U1	can acquire knowledge in the field of organic farming from various sources, analyze information and apply	K_U01	2
Skills – U2	identifies and analyzes phenomena and interactions between the achievements of natural sciences, especially in the field of organic farming, including organic food	K_U02	1
Competence –K1	is aware of the importance of social, professional and ethical responsibility for ecological production of high-quality food, animal welfare and shaping and condition of the natural environment	K_K04	2

*)

3 - advanced and detailed,

2 - significant,

1 - basic,