

**Course name:****NON-CHEMICAL WEED MANAGEMENT**

ECTS	3
Course status	complementary
Course final assesement/evaluation of outcomes	credit
Prerequisites	N.A.

**Main field of study:****AGRONOMY, AGRICULTURE**

Profile of study	General-academic
The code of studies (education level)	SM master
Semester of studies	summer
Language of instruction	English

**Course offered by:**

Name of faculty offering the course	Faculty of Agriculture and Economics
Name of department offering the course	Department of Agroecology and Crop Production
Course coordinator	Dr. Agnieszka Synowiec

**Learning outcomes of the course:**

Symbol of outcome	Description of learning outcome	Reference to	
		main field of study outcomes	discipline#
<b>KNOWLEDGE – student knows and/or understands:</b>			
NCWP_W1	has advanced knowledge in the field of interaction plants and habitats and the use of natural resources in agriculture.	RO2_W11	RR
<b>SKILLS – student is able to:</b>			
NCWP_U1	chooses the right solutions to improve the condition of environment and improve production and economic efficiency in agriculture	RO2_U13	RR
NCWP_U2	has the ability to prepare oral presentations in English in the field of teaching content related to field of study	RO2_U18	RR
<b>SOCIAL COMPETENCE- student is ready to:</b>			
NCWP_K1	uses knowledge and skills to define priorities of efficient action	RO2_K03	RR
NCWP_K2	is aware of the environmental burdens resulting from the crop production	RO2_K06	RR

**Teaching contents:**

<b>Lectures</b>	<b>18</b> hours
Introduction: basic definitions. Prevention strategies in weed management	
Weed-crop competition in managing weed problems	
Cultural weed management (role of crop rotation)	

Topics of the lectures	<p>Role of biodiversity for managing weeds (intercropping)</p> <p>Allelopathy as a tool for weed management</p> <p>Mechanical weed management</p> <p>Physical weed control (thermal, solar) and night tillage</p> <p>Non-living and biodegradable mulches in weed control</p> <p>Bioherbicides</p>
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Accomplished learning outcomes	NCWM_W1, NCWM_U1, NCWM_U2, NCWM_K1, NCWM_K2
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Verification methods, rules and criteria of outcome assessment	test exam (60%)
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<b>Classes</b>	<b>12</b>	<b>hours</b>
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Topics of the classes	<p>Individual projects are realised during classes:</p> <p>Get to know your weed - project aiming at getting familiar with the most important weeds, their biology and crops they infest</p> <p>Designing a crop-rotation including intercrops to manage the troublesome weed species, including the other cultural methods (i.e. competitive crops, increased crop density). Application of mulches and allelopathic plants to the crop rotation for weed management</p> <p>Designing a proper mechanical soil cultivation and and physical methods to the crop- rotation</p>
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Accomplished learning outcomes	NCWM_W1, NCWM_U1, NCWM_U2, NCWM_K1, NCWM_K2
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Verification methods, rules and criteria of outcome assessment	project (40%)
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<b>Seminars</b>	<b>...</b>	<b>hours</b>
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Topics of the seminars	
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Accomplished learning outcomes	symbol of learning outcomes of the seminars
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Verification methods, rules and criteria of outcome assessment	together with participation in the final assesement (in %)
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**References:**

Basic	<p>Bond W, Turner RJ, Grundy AC A review of non-chemical weed management. <a href="http://www.organicweeds.org.uk">www.organicweeds.org.uk</a></p> <p>Schonbeck M. An ecological understanding of weeds. <a href="http://www.extension.org">www.extension.org</a></p>
Supplementary	scientific papers provided by the teacher (Weed Science, Weed Research, Allelopathy Journal)

**Structure of learning outcomes:**

Discipline: # RR	3	ECTS**
Discipline: # (provide appropriate symbol - if the course relates to more than one academic discipline )	...	ECTS**

**Structure of student activities:**

Contact hours	36	hours	1,4	ECTS**
including:	lectures	18	hours	
	classes and seminars	12	hours	
	consultations	4	hours	

participation in research	...	hours		
mandatory traineeships	...	hours		
participation in examinations	2	hours		
e-learning	...	hours	...	ECTS**
student own work	40	hours	1,6	ECTS**

Syllabus valid from the academic year 2021/2022

**\* where 10 hours of classes = 1 ECTC (in case of 15 h → 2 ECTS)**

\*\* stated with an accuracy to 0.1 ECTS, where 1 ECTS = 25 - 30 hours of classes

# academic discipline code: RR - agriculture and horticulture