



## **BYDGOSZCZ UNIVERSITY OF SCIENCE AND TECHNOLOGY**

Faculty of Agriculture and Biotechnology

### **Characteristics of the field of study**

Education at the master's level within the field of AGRICULTURE will provide you with natural and agricultural knowledge in the field of plant production technology and its biological and ecological foundations. You can expand your knowledge and skills depending on your interests and aspirations within the subjects to choose from two specialties. You will acquire cutting-edge academic knowledge and practical skills that will prepare you to conduct innovative research and apply practical solutions in agriculture. They concern new production technologies and evaluation of the seed material of agricultural, vegetable and herbal plants. You will gain knowledge about the selection of species, varieties and production technologies under various farming systems, and you will assess the effects and effects of using plant protection products and fertilizers. Getting to know the methodology of environmental and agricultural research used in agricultural advisory services, as well as developing the habit of using literature and a solid basis of directional knowledge will allow you to undertake research, didactic and instructor work in the future. It is also facilitated by the possibility of acquiring new skills during trips to European universities thanks to the Erasmus + program.

#### **Specialties:**

##### **agrotechnics and agribusiness**

It is focused on multi-faceted education. It covers environmental aspects - concerning the biology of plant yielding and technical issues related to agrotechnics. Aspects related to the functioning of enterprises and family farms in the current legal and market conditions are also taken up, and market analysis is performed in the context of the assessment of agricultural law and negotiations in agribusiness.

##### **diagnosis of crops and plant protection**

It puts more emphasis on issues related to the characteristics of the condition of field crops and methods of improving the qualitative and quantitative characteristics of the crop. It is realised mainly through subjects such as: biological progress; damage, losses and losses of biomass in the agroecosystem; environmental toxicology; agroecology and environmental protection, as well as integrated protection of plants against diseases and pests, or the items to choose from: environmental effects of energy conversion; renewable energy sources; plant protection products - trade, use, legal regulations; nature protection.

#### **Where, and what kind of job is waiting for you?**

Combining theory with experience and practice. Comprehensive preparation and universalism appreciated by employers will allow you to find an interesting job in agricultural administration, services, agricultural advisory, governmental and local administration related to agriculture and specialised farms, enterprises dealing in the purchase and sale of plant products, scientific and

research institutions, research centers -developmental. You will be competent to run all types of farms, including organic and animal farms.

### About the study program

The Master's degree program in the field of AGRICULTURE significantly extends the knowledge acquired at the stage of engineering studies. As part of second-cycle studies, in addition to a few basic subjects, you will learn, among others, methods used in agricultural research, and as part of your diploma practice, you will have the opportunity to use some of them while collecting material for your master's thesis. The cognitive scope is also increased by specialised subjects to choose from, such as: Quality and safety of agricultural crops, Climatic risk of plant cultivation, and Soil protection and remediation, Practical aspects of research experiments and Ecological biochemistry, Entomology and plant priming. You will also be able to develop your interests in the Scientific Clubs: Agronomy, Plant Protection and Agribusiness Consulting. Check out the full program and see how much you can still learn!

### Description of the specialty

The study program is adapted to the latest solutions in agriculture, which will provide you with optimal preparation for the current conditions on the labour market. A number of issues that make up the final result are divided between two specialties.

### Course content

<b>AGRICULTURE: second-cycle studies</b>	Exam/Pa ss	Lecture	Class	Laborato ry	Seminar	ECTS
<b>First semester</b>						
Ecophilosophy	P	20				3
Agrophysics	E/P	20		20		5
Instrumental Analysis	P	20		30		5
Foreign Language	P			20		1
Agrobiotechnology	E/P	20		30		6
Methods of Agricultural Research	E/P	20		20		6
Diploma Internship	P					2
MSc Thesis Seminar	P				20	2
<b>Second semester Speciality 1: agrotechnics and agribusiness</b>						
Foreign Language	P			30		1
Environmental Management	E/P	15		20		5
Biology of Crop Yield	P	20		15		4
Advances in Agrotechnics	E/P	15		30		5
Agricultural Market Analysis and Marketing	E/P	15		15		4
Diagnosing Agricultural and Horticultural Plants	P	20		10	5	2
Agri-environmental schemes	P	15		15		2
Storage and Preservation of Plant Materials	P	15		15		2

Diploma Lab	P			90		3
MSc Thesis Seminar	P				45	2
<b>Third semester Speciality 1: agrotechnics and agribusiness</b>						
Agricultural Law	P	24	12			2
Geology with Petrography	P	24		12		2
Elective Course	P	24		12		2
Elective Course	P	24				1
Negotiations in agribusiness	P	12		12		1
Agricultural Systems with Elements of Precision Farming	P	12				1
MSc Thesis Seminar	P				24	1
Preparation of a MSc Thesis and Exam Revision	E					20
<b>Second semester Speciality 2: diagnosis of crops and plant protection</b>						
Foreign Language	P			30		1
Environmental Management	E/P	15		20		5
Biology of Crop Yield	P	20		15		4
Postęp Biologiczny	E/P	15		30		4
Integrated Protection of Plants	E/P	20		15		4
Damage and Losses of Biomass in the Agroecosystem	P	20		10	5	2
Environmental Toxicology	P	30		15		3
Agroecology and Environment Protection	P	15		15		1
Protection and Reclamation of Soils	P	16				1
Diploma Lab	P			90		3
MSc Thesis Seminar	P				45	2
<b>Third semester Speciality 2: diagnosis of crops and plant protection</b>						
Little-known Vegetable Plants	P	12		12		2
Environmental Law	P	12	12			2
Sewage and Waste Management	P	12		12		2
Elective Course	P	24		12		2
Elective Course	P	24				1
MSc Thesis Seminar	P				24	1
Preparation of a MSc Thesis and Exam Revision	E					20