

## M.Sc AGRONOMY COURSE CONTENT

Form of Study: Full-time Study  
Length of Study: 1.5 years (3 semesters)

### The program includes:

theoretical classes, which are comprised of contact classroom studies (lectures, seminars, lab classes, practical training) and self-work. The curriculum consists of: compulsory courses - 45 ECTS, optional university courses - 11 ECTS, Precision Agriculture specialization courses - 20 ECTS; 3 term papers (projects) (1.5 ECTS); Master qualifying paper written and defence (4 ECTS).

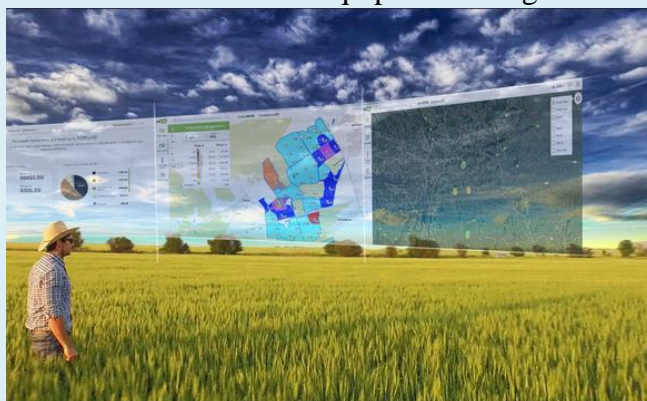
### Agronomy (Agr) Major

The Master of Science in Agronomy offers a unique opportunity to develop new advanced skills in professional agriculture. It's designed for farmers, farm service industry professionals and agricultural scientists to pursue a MSc degree in a field where the interaction between science, technology and biology plays an important role. During the program, students are educated in finding innovative solutions using a systems approach. Important features of the programme are its scientific approach, the strong link to improving the agricultural practices and making agriculture sustainable so that it benefits both the consumer and the environment. Participants who complete this course – will be recognized as a crop professional. Participants, through the growing season, starting with soil study and land preparation, to planting, nutrition and crop protection, and ending with harvesting and crop processing. The course goes into global positioning systems and differential correction, sensors, mapping, variable-rate technology, yield monitoring, calibration, telematics, and data

analysis used in precision crop production. By participating in our program, you will be able to strengthen your existing skills while learning new techniques that will help you feel more confident and prepared for the future.

### Precision Agriculture (PA) Minor

The National University of Life and Environmental Sciences of Ukraine, Agrobiolohy faculty offer a number of training opportunities that focus on Precision Agriculture, including Master and PhD level research. Students learn the latest developments in PA and are provided with unique hands on experience in the application of a range of industry standard technologies including: soil sensing, satellite/laser biomass imagery, active optical sensor networks, remote piloted aircraft, geographical information systems, GPS devices, GNSS survey equipment. Msc agronomy students in cooperation with faculty partners develop and implement comprehensive solutions to increase the efficiency of agribusiness. They select the tools that allow our clients to get more profit from each hectare of field: soil analysis, precision farming technology, agro-diagnostics, power management and crop monitoring, as well as modern software and equipment for agriculture.



<http://agrilab.ua/o-kompanii> (faculty partner)

MSc Agronomy																	
Curriculum																	
№	Course Name	Total hours loading		Forms of knowledge control			In-class learning				Practical training	Hours per week in semesters					
		Course Hours	ECTS	Exam	Pass/fail	exam	Course work	Including				Self-work (Hours)	Educational training	Semester			
								Total Hours	Lectures	Lab classes					Practical classes	1	2
15	15	10															
<b>1. COMPULSORY COURSES</b>																	
1	Bio and Environmental Technology	90	3	x			30	15	15		60			2			
2	Soil and Soil Dynamics Management	120	4	x			30	15	15		90			2			
3	Agricultural Chemistry Marketing Service	90	3	x			30	15	15		60			2			
4	SMART Farming	120	4	x	x		30	15	15		90			2			
5	Precision Grass Land Management	90	3	x			30	15	15		60			2			
6	Controlled Plant Postharvest Processing and Storage	90	3		x		30	15	15		60			2			
7	Plant Variety Catalogues, Certificate Databases & Information systems	90	3		x		30	15	15		60			2			
8	Quantitative Approach to Soil and Land Evaluation	90	3	x			30	15	15		60			2			
9	Innovative Plant Science Technologies	120	4	x		x	45	15	30		75			3			
10	Plant Nutrition Diagnostic Technics	90	3	x			45	15	30		45			3			
11	Biosystems Design in Farming	90	3	x	x		30	15	15		60			2			
12	Sustainable Plant Process Engineering	90	3	x			30	15	15		60			2			
13	Fodder Cropping Technologies	90	3		x		30	15	15		60			2			
14	Genomics and Plant Genetic Resources	90	3	x			30	15	15		60			2			
<b>Total</b>		<b>1350</b>	<b>45</b>	<b>9</b>	<b>5</b>	<b>0</b>	<b>450</b>	<b>210</b>	<b>240</b>	<b>0</b>	<b>900</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>16</b>	<b>0</b>	

Curriculum (continuation)																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<b>2. ELECTIVE COURSES</b>																
<b>2.1. Courses recommended by University</b>																
1	Research Design & Research Methods	90	3		x			30	15	15		60			2	
2	Scientific Communications	150	5	x				30		30		120			2	
3	Development and Rural Innovation	90	3		x			30	15	15		60			2	
	<b>Total</b>	<b>330</b>	<b>11</b>	<b>1</b>	<b>2</b>			<b>90</b>	<b>30</b>	<b>60</b>		<b>240</b>			<b>4</b>	<b>2</b>
<b>2.2. Optional Courses</b>																
<b>Specialization "Precision Agriculture"</b>																
1	Advanced Soil Observation and Soil Quality Control	120	4	x		x		30	10	20		90				3
2	Advanced Plant Diagnostics and Plant Nutrition Control	120	4		x			30	10	20		90				3
3	Precision Farming: Key Technologies & Concepts	90	3	x				30	10	20		60				3
4	Remote Sensing and GIS Integration	90	3	x				30	10	20		60				3
5	Data Management and Digital Mapping	90	3		x			30	10	20		60				3
6	Quantitative Analysis of Land Use Systems (QUALUS)	90	3	x				30	10	20		60				3
	<b>Total</b>	<b>600</b>	<b>20</b>	<b>4</b>	<b>2</b>	<b>0</b>		<b>180</b>	<b>60</b>	<b>120</b>		<b>420</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>
	<b>All</b>	<b>930</b>	<b>31</b>	<b>5</b>	<b>4</b>	<b>0</b>		<b>270</b>	<b>90</b>	<b>180</b>		<b>660</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>3. OTHER ACTIVITIES</b>																
	MSc Thesis	120	4													
	Practical training	300	10													
	Amount of course works					3										
	Amount of pass/fail exams					9										
	Amount of exams					14										
	<b>TOTAL</b>	<b>2700</b>	<b>90</b>	<b>14</b>	<b>9</b>	<b>3</b>		<b>720</b>	<b>300</b>	<b>420</b>		<b>1560</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>18</b>



## Admission Requirements

The common regulations for the Master degree of the NUBiP, Agrobiology Faculty shall apply. The following shall be eligible for admission into the Master of Science degree in Agronomy:

- holders of a Bachelor of Science degree from universities, colleagues or an equivalent qualification from another institutions, recognized by the Ukrainian legislation;
- students should have capability of conducting research.

### Fees

All international graduate students are required to pay the tuition and fees. For more information about tuition fee please contact the Center for International Activity (3 building, 107 audience, tel.: +38 (044) 258-42-34, [inter@nubip.edu.ua](mailto:inter@nubip.edu.ua)).

### Student Facilities

NUBiP has 4 research stations, academic offices, greenhouses, orchards, dining halls, laboratories, computer labs, gym/keep-fit studios, stadiums, parking, dormitories, centre for open and distant learning, library, career center, music center, theatre, museum, clubs and societies, social counselling, health clinic, etc. Annually, NUBiP organizes international festival of art "Holosiivska Vesna". Also, foreign students can submit the traditions and culture of his land in such events as "Student evenings."

### Contact information

**Agrobiology faculty:**

Educational building 4, room 39  
 Heroyiv Oborony st., 13,  
 Kyiv - 03041, Ukraine  
 Tel.: (044)527-82-13, 093-117-19-83.  
 E-mail: [agro\\_dek@i.ua](mailto:agro_dek@i.ua),  
<https://nubip.edu.ua/en/node/4179>,



<https://www.facebook.com/nubip.edu.ua>

**International admission office:**

Administrative building 3, room  
 109, Heroyiv Oborony st., 15,  
 Kyiv - 03041, Ukraine  
 Phone/Fax: +38 (044) 258-42-34;  
 +38 (044) 527-89-59

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<https://nubip.edu.ua/en/node/11134>



## Master of Science (MSc) in AGRONOMY Specialization "Precision Agriculture"

