



COURSE SYLLABUS

«Technology production of crop and livestock products»

Degree of higher education - Bachelor
Specialization 076 Entrepreneurship and Trade
Educational programme «Entrepreneurship, Trade and Exchange activities»
Academic year 1, semester 1
Form of study full-time
Number of ECTS credits 3.0
Language of instruction English

Lecturer of the course
Contact information of the lecturer (e-mail)
Course page on eLearn

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<https://elearn.nubip.edu.ua/course/view.php?id=973>

COURSE DESCRIPTION

(up to 1000 printed characters)

The discipline aims to provide students with knowledge of the basics of production, storage, and processing technologies for agricultural crops and livestock products, as well as the fundamentals of agricultural entrepreneurship, production economics, and processing. The course covers the application of modern technologies in agriculture, the storage and processing of various crops such as grains, seeds, potatoes, fruits, and vegetables, and the ability to predict the suitability of harvested crops for sale, temporary or long-term storage, and processing. Through the course, students will gain a broad understanding of the consumer value of agricultural products and learn how to properly assess the quality and value of their own produce, organize its production and sale in specific conditions, and achieve the greatest economic benefit.

Competencies of the educational programme:

Integrative competency (IC): Ability to solve complex specialized tasks and problems in the fields of entrepreneurial, trade, and exchange activities, or in the process of learning, which involves the application of theories and methods of organization and functioning of entrepreneurial, trade, and exchange structures and is characterized by complexity and uncertainty of conditions.

General competencies (GC): GC 9. A commitment to preserving the environment. GC 12. The ability to preserve and advance the moral, cultural, and scientific values and achievements of society based on an understanding of the history and patterns of development in the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and techniques, and the use of various types and forms of physical activity for active leisure and healthy living.

Professional (special) competencies (PC): PC 11. Ability to organize entrepreneurial and trade activities in the agricultural sector under the conditions of utilizing innovative approaches and international trade in agribusiness.

Program learning outcomes (PLO) of the educational programme: PLO 8. Apply acquired knowledge and skills to initiate and implement measures in the field of environmental conservation and safe activities of entrepreneurial, trade, and exchange structures. PLO 10. Demonstrate the ability to act socially responsibly based on ethical, cultural, scientific values, and achievements of society. PLO 21. Apply knowledge and skills to ensure the organization of agricultural production and the implementation of agricultural products under the conditions of using effective technologies in crop and livestock farming.

COURSE STRUCTURE

| Topic | Hours (lecture/laboratory, practical, seminar) | Learning outcomes | Tasks | Assessment |
|--|--|---|--|--------------------|
| Semester 1 | | | | |
| Module 1. Basis of planting | | | | |
| Topic 1. Lecture 1. Winter grain crops (winter wheat, winter barley, winter rye). PR 1. Botanical and morphological features of plants. Wheat, barley. Types, varieties. SR. 1. Quality assessment and sale of processing products | 2/2/7 | Apply the acquired knowledge to identify, set and solve problems in various practical situations in business, trade and stock exchange activities. Apply the acquired knowledge and skills to initiate and implement measures in the field of environmental protection and the implementation of safe activities of business, trade and stock exchange structures. Demonstrate the ability to act socially responsibly on the basis of ethical, cultural, scientific values and achievements of society. Apply knowledge and skills to ensure the production and sale of agricultural products under the conditions of using effective technologies in plant and animal husbandry. To be able to carry out entrepreneurial, trade and exchange activities in the field of agribusiness, taking into account the provision of quality life. | Having a completed assignment in a notebook for laboratory work and sending an electronic file with the completed assignments to the ENC through the Elearn system. Written and oral answers to questions for laboratory work. | 10/5 15 |
| Topic 2. Lecture 2. Early spring grain crops (spring wheat, spring barley, spring oats). PR 2. Botanical morphological characteristics of wheat, rye, triticale, barley, oats. Types, their characteristics. SR. 2. Production, classification and sale of donkey oils | 2/2/7 | | | 10/5 15 |
| Topic 3. Lecture 3. Corn. PR 3. Corn. Sorghum. Fig. Buckwheat Peculiarities of morphological and logical structure. Description according to natural samples. SR. 3. Lentils, plantain, chickpeas. Biological features and technology. | 2/2/7 | | | 10/5 15 |
| Topic 4. Lecture 4. Millet. PR 4. Buckwheat. Peculiarities of morphological structure. Description according to natural samples. SR. 4. Compilation of a technological map of growing peas. | 1/1/8 | | | 10/5 15 |
| Writing the Module 1 | | | | 40 |
| Total for 1 Module | | 7/7/30=44 | | 100 |
| Module 2. Grain processing and storage technologies | | | | |
| Topic 5. Lecture 5. Theoretical aspects of processing and storage of plant products. PR 5. Determination of contamination of grain by collared pests. SR 5. Payments for grain depending on its quality. | 2/2/7 | Apply the acquired knowledge to identify, set and solve problems in various practical situations in business, trade and stock exchange activities. Apply the acquired knowledge and skills to initiate and implement measures in the field of environmental protection and the implementation of safe activities of business, trade and exchange structures. To demonstrate the ability to act socially, responsibly on the basis of ethical, cultural, scientific values and achievements of society. Apply knowledge and skills to ensure the production and sale of agricultural products under the conditions of using effective technologies in plant and animal husbandry. To be able to carry out entrepreneurial, trade and exchange activities in the field of agribusiness, taking into account the provision of quality life. | Having a completed assignment in a notebook for laboratory work and sending an electronic file with the completed assignments to the ENC through the Elearn system. Written and oral answers to questions for laboratory work. | 10/5 15 |
| Topic 6. Lecture 6. Grain mass as a storage object. PR 6. Determining the nature of the grain on a liter bag. SR 6. Quantitative and qualitative accounting of grain during storage. | 2/2/7 | | | 10/5 15 |
| Topic 7. Lecture 7. Post-harvest processing of grain. PR 7. Determination of types and subtypes of grain crops, glassiness of grain. SR. 7. Grain losses during storage. Calculation of natural losses. | 2/2/8 | | | 10/5 15 |
| Topic 8. Lecture 8. Grain storage. Types of granaries. PR. 8. Determination of the quantity and quality of crude gluten in wheat grain. SR. 8. Calculations for grain cleaning and drying. | 2/2/8 | | | 10/5 15 |
| Writing the Module 2 | | | | 40 |
| Total for 2 Module | | 8/8/30=46 | | 100 |
| Total for education work | | 15/15/60= 90 | | 70 |
| Exam | | | | 30 |
| Total for subject | | | | 100 |

ASSESSMENT POLICY

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|--|---|
| <i>Policy regarding deadlines and resits:</i> | Assignments submitted after the deadline without valid reasons will be graded lower. Resiting of modules will be allowed with the permission from the lecturer and in the presence of valid reasons (e.g. medical reasons). |
| <i>Academic honesty policy:</i> | Cheating during tests and exams is strictly prohibited (including the use of mobile devices). Coursework and research papers must contain correct citations for all sources used. |
| <i>Attendance policy:</i> | Class attendance is mandatory. In case of objective reasons (such as illness or international internships), individual learning may be allowed (in online format by the approval of the dean of the faculty). |

SCALE OF ASSESSMENT OF STUDENT KNOWLEDGE

| Student rating, points | National grade based on exam results | |
|------------------------|--------------------------------------|------------|
| | exams | credits |
| 90-100 | excellent | passed |
| 74-89 | good | |
| 60-73 | satisfactory | |
| 0-59 | unsatisfactory | not passed |

RECOMMENDED SOURCES OF INFORMATION

1. Подпратов Г. І., Бобер А. В. Переробка продукції рослинництва: навч. посіб. Київ : ЦП «Компринт», 2017. 524 с.
2. Подпратов Г. І., Бобер А. В. Післязбиральна доробка та зберігання продукції рослинництва: навч. посіб. Київ : Редакційно-видавничий відділ НУБіП України, 2019. 492 с.
3. Скалецька Л. Ф., Бобер А. В., Рожко В. І., Хомічак Л. М. Переробка продукції рослинництва: лабораторний практикум (навчальний посібник). Київ : Центр інформаційних технологій, 2013. 360 с.
4. Подпратов Г. І., Бобер А. В., Ящук Н. О. Технохімічний контроль продукції рослинництва: навч. посіб. 2-е вид., допов. і перероб. Київ : ЦП «Компринт», 2020. 791 с.
5. Каленська С. М., Новицька Н. В., Бачинський О. В. Технологія виробництва продукції рослинництва: для студентів ОС "Бакалавр" спеціальності 051 «Економіка», 2018. 541 с.
6. Танчик С. П., Дмитришак М. Я., Мокрієнко В. А., Дудченко В. М. Технології сільськогосподарської продукції. Книга 1. Технології виробництва продукції рослинництва: підручник. Київ : Видавничий дім "Слово", 2012. 704 с.
7. Гречкосій В. Д., Дмитришак М. Я., Шатров Р. В., Мокрієнко В. А. Комплексна механізація виробництва зерна: навч. посіб. Київ: ТОВ "Нілан-ЛТД", 2012. 288 с.

Information resources

- <https://agrovекtor.com/ua/art/1116-aktivne-ventilyuvannya-zerna-za-poruka-zberezhennya-vrozhayu.html>
- <https://agroexpert.ua/vidpovidnist-obladnannia-dlia-zberihannia-zerna-vymoham-standartiv/>
- <https://agroelita.info/scho-take-suchasnij-zernovyj-elevator/>
- <http://agronomy.com.ua/statti/515-suchasni-tehnolohii-sushinnia-zerna.html>
- <https://agrosepmash.ua/uk/yak-vidbuvaetsya-ochishhennya-zernovix-etapi-ta-obladnannya/>
- <http://agro-business.com.ua/agro/mechanizatsiia-apk/item/8931-suchasni-zernoochysni-mashyny.html>
- <https://agrosepmash.ua/uk/porivnyannya-suchasnix-separatoriv-zerna-rbs-iz-bcs-ta-ovs/>
- <https://ravaro.com.ua/products-ua/zernosusharki-potocni>
- <https://www.susharka.com.ua/pytannya/iaku-susharku-obraty>
- <http://www.eridon-tech.com.ua/sukup-mixed-flow-dryers/>