|  |  |
| --- | --- |
| E:\nubip_logo_new_poisk_18_2.png | **Syllabus of Discipline** **«Greenhouse’s technologies»** |
| Scientific Degree **-** Bachelor’s degree |
| Specialty - 201 «Agronomy» |
| Training Program - «Horticulture and Viticulture» |
| Year - 2023-2024 |
| EКТS 3,0 |
| English langage |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| **Lector** | Sleptsov Y.V. |
|  **(e-mail)** | helicopter09@ukr.net |
|  **eLearn**  | <https://elearn.nubip.edu.ua/course/view.php?id=1468> |

# **Discipline’s content**

|  |
| --- |
| **Bachelor’s Curricular and Training Program** |
| Scientific Degree | Bachelor’s degree |
| Specialty | 201 «Agronomy» |
| Training Program | «Horticulture and Viticulture» |
| **The gist of** **Discipline** |
| ECTS  | 3,0 |
| Number of modules | 2 |
| Form control | *Exam*  |
| **Discipline’s indicators**  |
|  | stationary training | Correspondent’s form |
| Course  | 2 | 3 |
| Semester | 5 | 6 |
| Lectures | *30 hours* | *6 hours* |
| Practical lessons | *30 hours*  | *4 hours* |
| Laboratorial lessons |  |  |
| Personal works | *45 hours* | *24 hours* |
| Auditoria hours for week | *6*  |  |

# **Aim, tasks and competencies of the academic discipline**

Aim – introducing students to the industry of Protected Cultivated.

Task - Formation of abilities and skills in the students in the industry of Protected Cultivated.

As a result of this Discipline the student has to

***Know:*** *Types of structures of greenhouses, covering materials, technologies.*

***Be able to:*** *grow some crops in Greenhouses and with covering materials.*

 **Competence:**

***Integral competence (IC)***: The ability to solve complex tasks and problems in the field of horticulture and viticulture during the implementation of professional activities or in the process of learning, which involves conducting research and implementing innovations, which are characterized by complexity and uncertainty of conditions.

 ***General competences (GC)***:

***GC*** 1. Ability to abstract thinking, analysis, synthesis.

***GC*** 2. The ability to identify, pose, and solve problems of a professional direction.

***GC*** 7. Ability to adapt and act in a new situation.

 ***Professional (special) competences (PC):***

PK 3. The ability to make effective decisions under conditions of insufficient or limited information, to clearly and unambiguously prove knowledge, argumentation and own conclusions to specialists and non-specialists.

PK 4. The ability to use the results of scientific research to ensure the development of horticulture and viticulture, to develop the scientific basis of intensive technologies for growing fruits, vegetables and grapes.

PC 6. Ability to present the results of professional and scientific activities to specialists and non-specialists.

 ***Program learning results (PLR):***

PLR3. Search for necessary information in scientific and technical literature, databases and other sources, analyze and evaluate this information. PH5. Apply modern research methods and tools, in particular, biometric, mathematical and computer modeling to solve complex problems of horticulture and viticulture.

PLR10. Provide consulting and expertise on innovative technologies in fruit growing and viticulture.

# **Program and structure of Discipline**

|  |  |
| --- | --- |
| Names of content modules and topics | Кількість годин |
| денна форма | Заочна форма |
| weeks | Total hours |  | Total hours | у тому числі |
| Lectu-res | pr |  |  | personal | L | pr |  |  | Perso-nal |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| **Module 1.** Greenhouse’s constructions |
| **Topic 1**. Greenhouse’s elements and constructions. | 1-3 | 22 | 4 | 8 |  |  | 10 | 6 | 2 | 2 |  |  | 2 |
| **Topic 2.** Covering materials. | 4-7 | 24 | 6 | 8 |  |  | 10 | 10 | 2 | 4 |  |  | 4 |
| **Тopic 3.** Greenhouses technologies  | 8-10 | 12 | 4 | 4 |  |  | 4 | 8 | 2 | 2 |  |  | 4 |
| *Total according to module 1* |  58 | 14 | 20 |  |  | 24 | 24 | 6 | 8 |  |  | 10 |
| **Module 2. Technologies’ of vegetable crops in Greenhouses** |
| **Тopic 4.** Technologies’ of vegetable crops in Greenhouses | 11-15 | 32 | 16 | 10 |  |  | 6 |  |  |  |  |  |  |
| *Total according to module 2* |  32 | 16 | 10 |  |  | 6 |  |  |  |  |  |  |
| Total hours |  | 39 | 39 |  |  | 46 |  |  |  |  |  |  |

# **Practical lessons**

|  |  |  |
| --- | --- | --- |
| №з/п | Назва теми | Кількістьгодин |
| 1 | Greenhouse’s elements and constructions | 8 |
| 2 | Covering materials | 8 |
| 3 | Greenhouses technologies | 4 |
| 4 | Technologies’ of vegetable crops in Greenhouses | 10 |
| **Total** | **30** |

**Marks gradations**

|  |  |
| --- | --- |
| **Рейтинг здобувача вищої освіти, бали** | **Оцінка національна за результати складання екзамену** |
| 90-100 | excellent |
| 74-89 | good |
| 60-73 | Average  |
| 0-59 | bad |

# **11. Methodical literature**

 Sleptsov Y. Greenhouse’s technologies\Кiiv: NULES Ukraine. – 2016.

# **12. Literature**

**– Main.**

Greenhouse horticulture **/** Cecilia Stanghellini, Bert Van 't Ooster and Ep Heuvelink. – Wageningen. – 2019.

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# **13. Information resources**

1. <https://elearn.nubip.edu.ua/course/view.php?id=1468>

2. <https://www.greenhousegrower.com/>