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|  | **SYLLABUS OF AN ACADEMIC DISCIPLINE**  **«OPERATIVE SURGERY, TOPOGRAFIC ANATOMY**  **AND ANESTHESIOLOGY»** |
| **Academic degree – Master** |
| **Specialty 211 Veterinary medicine** |
| **Academic programme «Veterinary medicine»** |
| **Year of study \_3\_\_, semester 5, 6**  **Form of study \_\_\_** **full-time \_\_\_** |
| **Number of ECTS credits\_\_\_7\_\_\_** |
| **Language(s) of instruction English** |
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| **Lecturer of the discipline** | **Klymchuk V. PhD, Tkachenko V., PhD** |
| **Lecturer’s contact information (e-mail)** | **vadvetdoctor@gmail.com \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **URL of the e-learning course on the NULES e-learning portal** | **https://elearn.nubip.edu.ua/course/view.php?id=555** |

**ACADEMIC DISCIPLINE DESCRIPTION**

*(up to 1000 printed characters)*

Surgical operations are used in treatment of animals and improvement of their productivity. Surgical operations are noted wide variety and belong to the most complex medical interventions. It will be successful performing surgical operations is impossible without knowledge of topographical anatomy. Tasks: - with the help of operational interventions, solves specific economic problems the task of restoring lost or low productivity in the shortest possible time animals, promoting the fastest recovery of the herd, quantitative and qualitative improvement meat, dairy products or wool.

The course of operative surgery consists of general and special parts. In the general part presents general data about the surgical operation, fixation of animals, asepsis and antiseptics, analgesia, elements of surgical operations, etc

In a special part, anatomical and topographic structure and technique are taught carrying out various operations in the areas of the head, neck, torso, limbs and others parts of the animal's body. **Acquisition of competencies:**

**Integral competency (IC):** the ability to solve specialized tasks and problems in professional activities in the field of veterinary medicine in the field of "Anesthesiology"

**General competencies (GC):**

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject field and profession.

GC 7. Ability to conduct research at an appropriate level.

GC 9. Ability to make informed decisions.

**Special (professional) competencies (SC):**

PC2. The ability to use tools, special devices, devices, laboratory equipment and other technical means to carry out the necessary manipulations during professional activities.

PC7. Ability to organize and conduct laboratory and special diagnostic studies and analyze their results.

PC12. Ability to develop and implement measures aimed at protecting the population from diseases common to animals and humans.

**Expected learning outcomes (ЕLO):**

1. Know and correctly use the terminology of veterinary medicine.

2. Use information from domestic and foreign sources to develop diagnostic, treatment and business strategies.

3. To determine the essence of physico-chemical and biological processes that occur in the body of animals in normal and pathological conditions.

4. To establish a connection between the clinical manifestations of the disease and the results of laboratory studies.

6. Develop quarantine and health measures, methods of therapy, prevention, diagnosis and treatment of diseases of various etiologies.

7. To monitor the causes of the spread of diseases of various etiologies and biological pollution of the environment with livestock waste, as well as materials and means of veterinary use.

9. Develop measures aimed at protecting the population from diseases common to animals and humans.

10. Propose and use expedient innovative methods and approaches to solving problematic situations of professional origin.

11. Summarize and analyze information on the effectiveness of the work of veterinary specialists of various subordinates.

12. Know the rules and legislative regulations regarding supervision and control of production, storage, transportation and sale of products of animal and plant origin.

13. Know the rules of storage of various pharmaceuticals and biological preparations, ways of their enteral or parenteral use, understand the mechanism of their action, interaction and complex action on the animal body.

14. Know the principles and methods of marketing and management of veterinary products and services in veterinary medicine.

15. Know the rules and requirements of biosafety, bioethics and animal welfare.

16. Carry out accounting reports during professional activity.

17. To carry out educational activities among industry workers and the population.

18. To have specialized software tools for performing professional tasks.

**ACADEMIC DISCIPLINE STRUCTURE**

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| **Topic** | **Hours**  (lecture/laboratory, practical, seminar) | **Learning outcomes** | **Tasks** | **Assessment** |
| **5 Semester** | | | | |
| **Module 1** | | | | |
| Topic №1 Introductory. The doctrine of surgery. The importance of operative surgery in a number of clinical disciplines. Classification of operations. Content of operations. | 9 | Understand the importance of discipline in the formation of a master of veterinary medicine. Know the purpose and tasks of the discipline. | Execution and protection of laboratory work No. 1 Implementation  independent work (including in elearn). Preparation of the protocol of classes. | **6** |
| Topic №2 Asepsis and antiseptics in veterinary surgery | 9 | Know general information about surgical diseases of animals, methods of their treatment and prevention. Get acquainted with the work of the surgical clinic. Distinguish between outpatient and inpatient treatment of animals. Be able to correctly draw up and maintain accompanying documentation. | Execution and protection of laboratory work No. 2 Implementation independent work (including in elearn). Preparation of the protocol of classes. | **6** |
| Topic №3 Anesthesiology. Premedication. General anesthesia. Anesthesia. Neuroleptanalgesia. Preparing the animal for anesthesia. Monitoring. Anesthesia of certain species of animals. Complication | 14 | Know general information about animal injuries (classification and prevention). Understand the impact of trauma on the body. | Execution and protection of laboratory work No.3 Performing independent work (including in elearn). Preparation of the protocol of classes. | **6** |
| Topic №4 Local anesthesia. Superficial, infiltrative, regional, spinal. | 12 | Be able to provide assistance in case of acute anemia, know the classification of bleeding and ways to stop it. Apply blood transfusion if necessary, avoiding various complications. | Execution and protection of laboratory work No. 4 Performing independent work (including in elearn). Preparation of the protocol of classes. | **6** |
| **Module 2** | | | | |
| Topic №5 Non-specific stimulant therapy in veterinary surgery. | 5 | To be able to carry out differential diagnosis of necrotizing diseases, ulcers, fistulas and foreign bodies. Provide medical assistance. | Execution and protection of laboratory work No. 5 Performing independent work (including in elearn). Preparation of the protocol of classes. | **7** |
| Topic №6 Novocaine blockades. Novocaine therapy. The effect of novocaine on the body. Theoretical bases of action of novocaine blockades, means of increase of their efficiency. Indications and contraindications. | 8 | To be able to carry out differential diagnosis for displacement of internal organs in animals. Know the clinical signs of these pathological conditions and provide animals with the necessary medical care. | Execution and protection of laboratory work No. 6 Performing independent work (including in elearn). Preparation of the protocol of classes. | **7** |
| Topic №7 Injections, punctures of vessels and cavities, infusions. Blood transfusions. | 5 | To be able to carry out differential diagnosis and treatment of dermatitis, pustular diseases and eczema, to know their clinical signs and causes. | Execution and protection of laboratory work No. 7 Performing independent work (including in elearn). Preparation of the protocol of classes. | **6** |
| Topic №8 Separation and joining of biological tissues. | 10 | To know the clinical and laboratory signs of myositis, myopathy and atrophy. To be able to carry out their differential diagnosis and treatment. | Execution and protection of laboratory work No. 8 Performing independent work (including in elearn). Preparation of the protocol of classes. | **6** |
| Topic №9 Temporary and permanent cessation of bleeding. Help with significant blood loss. | 7 | Know the clinical and laboratory signs of diseases of tendons, tendon sheaths and bursae. To be able to carry out their differential diagnosis and treatment. | Execution and protection of laboratory work No.9 Performing independent work (including in elearn). Preparation of the protocol of classes. | **7** |
| Topic №10 Plastic surgery | 6 | To be able to carry out differential diagnosis of bone and joint diseases. Know clinical and laboratory signs. Be able to use different treatment regimens. | Execution and protection of laboratory work No.10 Performing independent work (including in elearn). Preparation of the protocol of classes. | **6** |
| Topic №11 Desmurgia | 5 | To know the clinical and laboratory signs of neoplasms, their classification. Methods of diagnosis and treatment. | Execution and protection of laboratory work No. 11 Performing independent work (including in elearn). Preparation of the protocol of classes. | **7** |
| **Total for Semester** | | | | **70** |
| **Test** |  |  |  | **30** |
| **6 Semester** | | | | |
| **Module 3** | | | | |
| Topic №12 Operations in the head. Topographic anatomy. Operations in the orbit. Operations on the horns, paranasal sinuses. Operations for sheep coenurosis. Operations on teeth, tongue, salivary glands. Ringing bulls. Rhinoplasty. Ear surgery. | 15 | Know the anatomy and physiology of the organ of vision in animals. | Execution and protection of laboratory work No.12 Performing independent work (including in elearn). Preparation of the protocol of classes. | **15** |
| Topic №13 Operations in the abdomen. Topographic anatomy. Laparotomy, laparocentesis, gastronomy. Enterotomy, bowel resection. Rumenocentesis, rumenotomy. Abomasotomy. Hernias. Herniotomy. | 18 | To be able to conduct studies of the organ of vision in various species of animals using various schemes, devices and tools. | Execution and protection of laboratory work No.13 Performing independent work (including in elearn). Preparation of the protocol of classes. | **15** |
| **Module 4** | | | | |  |  |  | **28** |
| Topic №14 Surgical interventions in the genital area. Castrations. | 15 | To know the anatomical and physiological characteristics of fingers in animals and the peculiarities of their structure in different species of animals. | Execution and protection of laboratory work No. 14 Performing independent work (including in elearn). Preparation of the protocol of classes. | **10** |
| Topic №15Operations in the pelvis. Urethrotomy, urethrostomy. Cystotomy. | 15 | Be able to care for hooves. Know different types of deformations, their causes and methods of prevention and treatment. | Execution and protection of laboratory work No. 15 Performing independent work (including in elearn). Preparation of the protocol of classes. | **10** |
| Topic №16Operations in the anus and rectum. Tail operations. | 13 | To know the clinical and laboratory signs of diseases of the hind legs in cows. To be able to use schemes of differential diagnosis and treatment of animals according to these pathologies. | Execution and protection of laboratory work No.16 Performing independent work (including in elearn). Preparation of the protocol of classes. | **10** |
| Topic №17 Topographic anatomy of the thoracic and pelvic limbs. Limb surgery | 14 | Know the clinical signs and features of deformations and diseases of hooves in horses. To be able to use schemes of differential diagnosis and treatment of animals according to these pathologies. | Execution and protection of laboratory work No. 17Performing independent work (including in elearn). Preparation of the protocol of classes. | **10** |
| **Total for Semester** | | | | **70** |
| **Exam** |  |  |  | **30** |

**ASSESSMENT POLICY**

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| ***Deadlines and exam***  ***retaking policy:*** | Assignments submitted after the deadline without valid reasons will be graded lower. Resitting of modules will be allowed with the permission from the lecturer and in the presence of valid reasons (e.g. medical reasons). |
| ***Academic integrity policy:*** | 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. |
| ***Attendance policy:*** | 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** **AND SKILLS**

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| **Student rating, points** | **National grade based on exam results** | |
| **exams** | **credits** |
| 90-100 | excellent | pass |
| 74-89 | good |
| 60-73 | satisfactory |
| 0-59 | unsatisfactory | fail |

**RECOMMENDED SOURCES OF INFORMATION**

1. **(**Власенко В.М., Тихонюк Л.А., Рубленко М.В. Оперативна хірургія, анестезіологія і топографічна анатомія. - Біла Церква,2003. – 512 с.
2. Оперативна хірургія тварин з основами топографічної анатомії і анестезіології / І.І. Магда, В.М. Власенко, І.І. Воронін та ін.; За ред. І.І. Магди. – К.: Вища шк., 1995. – 296 с.
3. Власенко В.М., Тихонюк Л.А. Хірургія у свинарстві та вівчарстві. – К.: Урожай, 1998.- 318 с.
4. Власенко В.М., Тихонюк Л.А. Хірургія в конярстві. – К.: Урожай, 1995. – 255
5. Борисевич В.Б., Борисевич Б.В. Оперативная хирургия домашних животных. – К., 1996. – 253 с.
6. Власенко В.М. Словник термінів ветеринарної хірургії. – К.: Вища шк.,1992. – 354 с.
7. <https://pubmed.ncbi.nlm.nih.gov>
8. <https://www.oie.int/en/home/>
9. <https://uk.wikipedia.org/>