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ФИО: Ястребов Олег Алектейскай State Autonomous Educational Institution of Higher Education Должность: Ректор

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## Дата подписания: 19.05.2023 16:30:3 PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA **RUDN University**

### **Agrarian and Technological Institute**

educational division (faculty/institute/academy) as higher education programme developer

### **COURSE SYLLABUS**

Anesthesiology, resuscitation and intensive care course title **Recommended by the Didactic Council for the Education Field of:** 36.05.01 Veterinary

field of studies / speciality code and title

The course instruction is implemented within the professional education programme of higher education:

36.05.01 Veterinary

higher education programme profile/specialisation title

### 1. COURSE GOAL(s)

The goal of the course **«Anesthesiology, resuscitation and intensive care**" is to master students' theoretical knowledge, practical skills and skills to ensure the safety of a sick animal at all stages of surgical treatment by preventing or reducing the body's response to injury, as well as restoring its impaired functions.

### 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course "Anesthesiology, resuscitation and intensive care" is aimed at creating the following competencies (parts of competencies) for students:

Table 2.1. List of competences that students acquire through the course study

| Competence code | Competence descriptor           | Competence formation indicators (within this course) |  |  |
|-----------------|---------------------------------|--|--|--|
| Couc            | Ability to plan measures for    | PC-3.1 Systematizes information about a              |  |  |
|                 | differential diagnosis of       | patient's symptoms/syndromes, forms a                |  |  |
|                 | diseases in a patient.          | set of preliminary diagnoses for further             |  |  |
|                 | _                               | confirmation or refutation.                          |  |  |
|                 |                                 | PC-3.2 Uses a ready-made or creates a                |  |  |
| PC-3            |                                 | unique algorithm for differential                    |  |  |
| 1 C-3           |                                 | diagnosis, taking into account the                   |  |  |
|                 |                                 | capabilities of the treatment facility.              |  |  |
|                 |                                 | PC-3.3 Uses the information obtained as a            |  |  |
|                 |                                 | result of diagnostic measures to make a              |  |  |
|                 |                                 | final diagnosis(s) and to correct the                |  |  |
|                 |                                 | diagnoses if necessary.                              |  |  |
|                 | Ability and readiness to plan   | PC-5.2 Selects the necessary and                     |  |  |
|                 | and conduct necessary           | sufficient set of instrumental diagnostic            |  |  |
|                 | instrumental diagnostics of the | methods to solve the problem.                        |  |  |
| PC-5            | patient's condition             | PC-5.3 He is able to conduct instrumental            |  |  |
| 103             |                                 | diagnosis of diseases in animals.                    |  |  |
|                 |                                 | PC-5.4 Interprets the results of the                 |  |  |
|                 |                                 | diagnosis and uses them to solve the                 |  |  |
|                 |                                 | problem.   |  |  |
|                 | Ability to use methods of       | j  |  |  |
| PC-9            | operative surgery in the        | surgical intervention, including methods             |  |  |
|                 | prevention, diagnosis and       | of anesthesia if necessary.                          |  |  |
|                 | treatment of animal diseases.   |  |  |  |

### 3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the core/variable/<u>elective</u>\* component of (B1) block of the higher educational programme curriculum.

<sup>\* -</sup> Underline whatever applicable.

Within the higher education programme students also master other (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the course study.

Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results

| Competence code | Competence descriptor   | Previous courses/modules, internships*   | Subsequent<br>courses/modules,<br>internships*   |
|-----------------|---|--|--|
| PC-3            | Ability to plan measures for differential diagnosis of diseases in a patient.                           | Obstetrics, gynecology and andrology Internal diseases General surgery Private Veterinary Surgery Parasitology and invasive diseases | Cardiology Endocrinology Nephrology Reconstructive surgery Veterinary ophthalmology Animal Dentistry Clinical internship Industrial practice Academic research practice with the preparation of a scientific qualification project Preparation for and passing the state |
| PC-5            | Ability and readiness to plan and conduct necessary instrumental diagnostics of the patient's condition | Animal anatomy Instrumental diagnostic methods   | Dermatology Cardiology Endocrinology Nephrology Reconstructive surgery Veterinary ophthalmology Animal Dentistry Clinical internship Industrial practice Academic research practice with the preparation of a scientific qualification                                   |

|      |  |  | project Preparation for and passing the state exam  |
|------|--|--|---|
| PC-9 | Ability to use methods of operative surgery in the prevention, diagnosis and treatment of animal diseases. | Operative surgery with topographic anatomy | Reconstructive surgery Veterinary ophthalmology Animal Dentistry Clinical internship Industrial practice Academic research practice with the preparation of a scientific qualification project Preparation for and passing the state exam |

### 4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course <u>is</u> "**Anesthesiology, resuscitation and intensive care**" is 3 credits.

Table 4.1. Types of academic activities during the periods of higher education programme mastering (<u>full-time training</u>)\*

| Type of academic activities                        |          | Total<br>academic | Semesters/training modules |   |   |   |
|--|----------|-------------------|----------------------------|---|---|---|
|  |          | hours             | 9                          | • | - | - |
| Contact academic hours                             |          | 51                | 51                         | - | - | - |
| including  |          |                   |                            |   |   |   |
| Lectures   |          | 17                | 17                         | - | - | - |
| Lab work   |          | 34                | 34                         | ı | - | ı |
| Seminars (workshops/tutorials)                     |          | -                 | _                          | - | - | - |
| Self-study   |          | 41                | 41                         | - | - | - |
| Evaluation and assessment (exam/pass/fail grading) |          | 16                | 16                         | - | - | - |
|  | academic | 108               | 108                        | - | - | - |
| Course workload hours_                             |          |                   |                            |   |   |   |
| Source Worldood                                    | credits  | 3                 | 3                          | - | _ | - |

### **5. COURSE CONTENTS**

Table 5.1. Course contents and academic activities types

| Course module title                                | Course module contents (topics)   | Academic activities types |
|--|---|---------------------------|
| Module 1. General concepts of                      | Topic 1.1. General concepts of anesthesiology, intensive care and intensive care. | Lectures, Lab work.       |
| anesthesiology, intensive care and intensive care. | Topic 1.2. Legal issues.  | Lectures, Lab work.       |
|  | Topic 1.3. Intraoperative patient monitoring.                                     | Lectures, Lab work.       |
| Module 2. Methods, pharmacological means           | Topic 2.1. Types and stages of anesthesia.  | Lectures, Lab work.       |
| and techniques of analgesia, premedication         | Topic 2.2. Inhalation anesthesia.   | Lectures, Lab work.       |
| and anesthetic support.                            | Topic 2.3. Local anesthesia.  | Lectures, Lab work.       |
|  | Topic 2.4. Infusion therapy.  | Lectures, Lab work.       |
|  | Topic 2.5. Acute blood loss.  | Lectures, Lab work.       |
|  | Topic 2.6. Cardiopulmonary resuscitation.   | Lectures, Lab work.       |
| Module 3. Anesthesia of particularly difficult     | Topic 3.1. Anesthesiology of diabetics.   | Lectures, Lab work.       |
| patients.  | Topic 3.2. Anesthesiology in ophthalmology.                                       | Lectures, Lab work.       |
|  | Topic 3.3. Anesthesiology of exotic animals.                                      | Lectures, Lab work.       |
|  | Topic 3.4. Anesthesiology in neurology.   | Lectures, Lab work.       |
|  | Topic 3.5. Physiology of CPP, IP.   | Lectures, Lab work.       |

# 6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Classroom equipment and technology support requirements

| Type of academic activities | Classroom equipment  | Specialised educational / laboratory equipment, software, and materials for course study (if necessary) |
|-----------------------------|--|---|
| Lecture                     | An auditorium for conducting lecture-type classes, equipped with a set of specialized furniture; a board (screen) and technical means of multimedia presentations. | -   |

| Laboratory   | An auditorium for laboratory work, individual consultations, routine monitoring and interim certification, equipped with a set of specialized furniture and equipment.  | <del>-</del> |
|--------------|---|--------------|
| Self-studies | An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to an electronic information and educational environment. | <del>-</del> |

### 7. RESOURCES RECOMMENDED FOR COURSE STUDIES

### Main readings:

- 1. Sakhno N. V., Vatnikov Yu. A., Yagnikov S. A., Shadskaya A.V., Shevchenko A. N., Tutkyshbai I. A., Andreeva O. N., Troshina N. I. Methodology of veterinary surgery training 2020.-184 p. https://e.lanbook.com/book/133910
- 2. Baymatov V.N. Workshop on pathological physiology: 2017.-352p. <a href="https://e.lanbook.com/book/94207">https://e.lanbook.com/book/94207</a>
- 3. Berdnikova L. N. Biomedical fundamentals of life safety: A course of lectures 2019.-205 p. https://e.lanbook.com/book/149591
- 4. Khulelidze N. G. Nursing care in surgery. Course of lectures: textbook for SPO 2021.-360 p. https://e.lanbook.com/book/151195

### Additional Readings:

- 1. Klimovich S. S., Maskin S. S., Matyukhin V. V. Intestinal insufficiency syndrome in patients with acute abdominal surgical pathology 2019.-148p. https://e.lanbook.com/book/141150
- 2. Fundamentals of veterinary physiotherapy: Textbook 2020.-108 p. https://e.lanbook.com/book/155050
- 3. Pavlov S. A., Kusheev C. B., Lomboeva S. S. Veterinary dentistry: A textbook for classes in veterinary dentistry for students studying in the specialty 36.05.01 Veterinary Medicine 2018.-124p. https://e.lanbook.com/book/143174
- 4. Semenov B. S., Videnin V. N., Nechaev A. Yu., Kuznetsova T. S., Guseva V. A. Operative surgery in animals 2021.-704p. https://e.lanbook.com/book/162365

#### Internet sources

- 1. Electronic libraries (EL) of RUDN University and other institutions, to which university students have access on the basis of concluded agreements:
- RUDN Electronic Library System (RUDN ELS) http://lib.rudn.ru/MegaPro/Web
- EL "University Library Online" <a href="http://www.biblioclub.ru">http://www.biblioclub.ru</a>

- EL "Yurayt" http://www.biblio-online.ru
- EL "Student Consultant" www.studentlibrary.ru
- EL "Lan" http://e.lanbook.com/
- EL "Trinity Bridge"

### 2. Databases and search engines:

- electronic foundation of legal and normative-technical documentation <a href="http://docs.cntd.ru/">http://docs.cntd.ru/</a>
- Yandex search engine https://www.yandex.ru/
- Google search engine https://www.google.ru/
- Scopus abstract database http://www.elsevierscience.ru/products/scopus/

*Training toolkit for self- studies to master the course \*:* 

- 1. The set of lectures on the course "Anesthesiology, resuscitation and intensive care".
- 2. Laboratory workshop on the course "Anesthesiology, resuscitation and intensive care".
- \* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

# 8. ASSESSMENT TOOLKIT AND GRADING SYSTEM\* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL UPON COURSE COMPLETION

The assessment toolkit and the grading system\* to evaluate the competences formation level (competences in part) upon the course study completion are specified in the Appendix to the course syllabus.

\* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

| DEVELOPER:   |           |                |
|--|-----------|----------------|
| Professor of the Department of Veterinary Medicine |           | Vatnikov Yu.A. |
| Position, Basic curriculum                         | Signature | Full name.     |
| HEAD OF EDUCATIONAL DEPARTMENT:                    |           |                |
| Department of Veterinary Medicine                  |           | Vatnikov Yu.A. |
| Name Basic Curriculum                              | Signature | Full name      |

### **HIGHER EDUCATION PROGRAMME:**

| Director of the Department of Veterinary Medicine |           | Vatnikov Yu.A. |
|---|-----------|----------------|
| Position Basic curriculum                         | Signature | Full name      |