# Information about the subject

**Degree:** Bachelor of Science Degree in Veterinary Medicine

**Faculty:** Faculty of Veterinary Medicine and Experimental Sciences

**Code:** 1260301 **Name:** Veterinary Surgery I

**Credits:** 6,00 **ECTS Year:** 3 **Semester:** 2

**Module:** Module of Clinical Sciences and Animal Health

**Subject Matter:** Clinical Sciences and Animal Health **Type:** Compulsory

**Department:** -

**Type of learning:** Classroom-based learning

**Languages in which it is taught:** Spanish

**Lecturer/-s:**


| | | |
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# Module organization

## Module of Clinical Sciences and Animal Health

| Subject Matter | ECTS | Subject | ECTS | Year/semester |
|---|---|---|---|---|
| Alterations in Structure and Function, and Fundamentals of Diagnosis | 36,00 | Clinical diagnostic techniques I (Clinical Propedeutics) | 6,00 | 3/1 |
| | | Clinical Diagnostic Techniques II (Imaging Diagnosis) | 6,00 | 3/1 |
| | | Histopathology and General Pathological Anatomy | 6,00 | 2/1 |
| | | Physiopathology and general integrated Pathology I | 6,00 | 2/1 |
| | | Physiopathology and general integrated Pathology II | 6,00 | 2/2 |
| | | Special pathological anatomy | 6,00 | 2/2 |
| Pharmacology and Therapeutics | 12,00 | Pharmacology and Toxicology | 6,00 | 3/1 |
| | | Pharmacotherapy, preventive medicine and veterinary hygiene | 6,00 | 5/1 |
| Clinical Sciences and Animal Health | 60,00 | Clinic and health in equines | 6,00 | 3/2 |
| | | Clinic and health in water animals | 6,00 | 5/1 |
| | | Clinic and health in wild and exotic animals | 6,00 | 3/2 |

| | | | |
|---|---|---|---|
| Clinical Sciences and Animal Health | Clinic and health on the farm I | 6,00 | 4/1 |
| | Clinic and health on the farm II | 6,00 | 4/2 |
| | Epidemiology | 6,00 | 3/1 |
| | Pet Clinic | 6,00 | 3/2 |
| | Reproduction and Obstetrics | 6,00 | 3/1 |
| | Veterinary Surgery I | 6,00 | 3/2 |
| | Veterinary Surgery II | 6,00 | 4/1 |

## Recommended knowledge

Prerequisites: Have notions of Anatomy, Physiology and General Pathology, Companion Animal Clinic and Diagnostic Imaging Techniques.

## Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

R1 The student knows and understands the concepts and terminology presented in the module Veterinary Surgery I.

R2 The student knows the basic concepts of surgical biology.

R3 The student correctly applies the principles of asepsis and antisepsis.

R4 The student is able to evaluate a patient from an anaesthetic point of view and propose an anaesthetic protocol.

R5 The student knows and identifies the main surgical pathologies and is able to propose a treatment in an equine clinic.

R6 The student is able to identify a pathology and propose a treatment of the Integumentary system in small animals, as well as ophthalmic surgery.

R7 The student searches bibliographic information from different sources and knows how to analyse it with a critical and constructive spirit.

R8 The student argues according to rational criteria based on his or her work.

## Competencies

**Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):**

| BASIC | | Weighting | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| CB2 | Capacity to apply knowledge to work or occupation in a professional way and have the competences that are proved by preparing and arguing topics and problem-solving in their specific field of study. | | | x | |
| CB3 | Capacity to gather and interpret relevant data usually within their specific field of study and capacity to make judgments that include reflection on relevant social, scientific or ethical issues. | | | | x |
| CB4 | Capacity to communicate information, ideas, problems and solutions at specialist and non-specialist levels. | | x | | |
| CB5 | Capacity to develop those learning skills needed to undertake further studies with a high degree of autonomy. | | | x | |

| GENERAL | | Weighting | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| CG0 | Capacity to speak well in public. | x | | | |
| CG2 | Understanding and applying prevention, diagnosis and individual or collective treatment , and control of animal diseases, individually or in groups, with special attention to zoonoses. | | | x | |
| CG3 | Understanding and applying control of animal breeding, management, health, reproduction, protection, and feed as well as improving production. | x | | | |
| CG5 | Understanding and applying laws, regulations and administrative provisions in all areas of the veterinary profession and public health, understanding the ethical implications of health in a changing global context. | | x | | |
| CG6 | Developing professional practice, acquiring skills related to teamwork, with an efficient use of resources and quality management. | | | | x |

| | | |
|---|---|---|
| CG7 | Identifying emerging risks in all areas of the veterinary profession. | x |

| SPECIFIC | | Weighting | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| E24 | Knowing and applying methods and procedures of clinical examination, additional diagnostic techniques and their interpretation. | | | | x |
| E25 | Knowing and applying imaging diagnostic and radiation biology. | | | x | |
| E26 | Knowing and applying necropsy. | x | | | |
| E27 | Knowing and applying recognition and diagnosis of different types of injuries and their association with pathological processes. | | | | x |
| E28 | Knowing and applying the clinical study of patients and medical, surgical or hygienic-dietary treatments required, as well as sporadic diseases affecting groups. | | | | x |
| E29 | Knowing and applying diagnosis. | | | | x |
| E30 | Knowing and applying surgical techniques used in veterinary. | | | | x |
| E31 | Knowing and applying animal anesthesia and resuscitation. | | | | x |
| E32 | Knowing and applying reproduction, birth and postpartum: care and disease. | | x | | |
| E33 | Knowing and applying assisted reproduction. | | x | | |
| E34 | Understanding and applying fish pathology. | x | | | |
| E36 | Knowing and applying pharmacotherapy. | | x | | |
| E39 | Knowing and applying transmission and maintenance of disease and methods of study of disease in populations. | | x | | |
| E40 | Knowing and applying infectious and parasitic diseases related to veterinary practice including diagnosis and control. | x | | | |
| E41 | Knowing and applying zoonoses and public health. | | x | | |

| | | | | | |
|---|---|---|---|---|---|
| E42 | Knowing and applying the promotion of collective health in animals, including wildlife, in order to maximize the economic performance in a social, ethical and healthy way. | x | | | |
| E43 | Knowing and applying technical measures and regulations for the prevention, control and eradication of animal diseases. | | x | | |

| TRANSVERSAL | | Weighting | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| T1 | Capacity of analysis, synthesis, implementation of knowledge for problem-solving and decision-making. | | | x | |
| T2 | Understanding and applying the scientific method to professional practice including evidence-based medicine. | | | x | |
| T3 | Basic knowledge of the veterinary profession: legal, economic, administrative, planning and time management issues and the veterinarians' society together with the importance of monitoring quality, standardization and protocols of veterinary practice. | | x | | |
| T4 | Mastering fluency in oral and written mother tongue communication, listening and responding effectively using a language appropriate to audience and context. | | x | | |
| T6 | Using information technology to communicate, share, search for, collect, analyze and manage information, especially related to the veterinarian practice. | | x | | |
| T7 | Ability to adapt to new situations, self-critical ability, being aware of personal limitations and understanding when and where seeking and obtaining advice and professional help. | | | x | |
| T8 | Efficient and effective work, both independently and as a member of a multidisciplinary team or unit, showing respect, appreciation and sensitivity to the work of others. | | | | x |
| T9 | Keeping an ethical behaviour in the exercise of given responsibilities toward the profession and society. | | | x | |
| T10 | Ability to learn, to research, and to be aware of the need to keep knowledge updated, and attending training programs. | | x | | |

## Assessment system for the acquisition of competencies and grading system

| Assessed learning outcomes | Granted percentage | Assessment method |
|---|---|---|
| R1, R2, R3, R4, R5, R6 | 40,00% | Written assessment of acquired knowledge and skills. The test may consist of a series of open-ended questions or multiple-choice questions about the theoretical contents of the module and/or practical exercises (problem-solving). |
| R4, R8 | 15,00% | Evaluation of the use of the practical lessons in the classroom, of problems or computer science, seminars and tutorials, by means of participation, computer-supported problem solving and the elaboration of the corresponding reports. |
| R3, R4, R5, R6 | 15,00% | Evaluation of the practical laboratory work, which must demonstrate the competences acquired by the student and his or her ability to use them to solve the different situations and problems that arise in a laboratory; this assessment may consist of one of the following methods, or a combination of several of them: an individual written test, the individual or group performance of a laboratory experience, the delivery of an individual or group report on the work carried out in the laboratory. |
| R4, R6, R7 | 10,00% | Evaluation of practical work in a clinic through which the student must demonstrate the competences acquired and the ability to use them to solve the different situations and problems that arise in a clinic; this assessment may involve one of the following methods, or a combination of several of them: a written individual test, the individual or group performance of a clinical experience, the delivery of an individual or group report on the work carried out in the laboratory. |

| | | |
|---|---|---|
| R1, R4, R6, R7, R8 | 10,00% | Evaluation of group work through a system of continuous assessment throughout the course based on the delivery of assignments the objectives and content of which will be proposed by the teacher. |
| R4, R6, R7, R8 | 10,00% | Evaluation of activities in which the student must do some research individually and structure information related to each of the topics through a system of continuous assessment throughout the course based on the delivery of papers, the objectives and contents of which will be proposed by the teacher. |

**Observations**

1. The average grade must be equal to or higher than 50%, in order to be averaged with the rest of the items. The written test represents 40% of the final grade. Thus, an exam on theoretical knowledge will be taken. The theoretical exam will consist of multiple-choice questions (each question with 4 options, of which only one is correct. The proportion of 3 incorrect questions will subtract a correct one.) and short answer questions (quote, list,...). Failure to pass the theoretical part will render it impossible to pass the course as a whole. 2. On the same day that the theoretical test is carried out, the exploitation of practical sessions in the classroom will be evaluated (15%) through a problem that the student will have to solve in situ. 3. On the same day that the theoretical test is carried out, an imaging test will be carried out, which will be used to evaluate the practical work in the laboratory (15%). 4. The evaluation of the practical work in clinic (10%) will be carried out at the end of the week of clinical training, whereby the acquired knowledge will be evaluated orally. 5. The evaluation of the group work (10%) will be carried out by means of the oral presentation in pairs or trios of one of the clinical cases studied in the hospital training sessions. 6. The student's autonomous activity (10%) will be carried out with the delivery of a record of clinical cases (“case log”), in which the student will describe their performance in the clinical hospital period. Global assessment: For the final grade, the results of the different evaluation activities are weighted. In order to pass the course, it will be necessary to obtain, as a minimum, a grade equal to or higher than 50 points out of 100 in eaach of the sections marked with an asterisk (*) and in the course's final grade. If the minimum grade of 50 is not obtained in these sections but other evaluation items have been passed, these passed grades will be kept for the two calls of the following year, given that they have passed the required competencies. Honorific mention criteria: At the teacher's discretion, an honorific mention may be awarded for every 20 students (not for a fraction of 20; except for the first 20 students). The honorific mention can only be granted in the first call of the first year of matriculation of the student in the course. Exam review: after the publication of the grades, the student will have the examination review schedules published on the intranet to review their exam, unless specifically indicated otherwise by the faculty. Those students who, for a justified reason cannot attend the evaluation of the course on the official exam date , may undergo the final evaluation of the course by means of an oral or written examination according to the teacher's criteria, following approval by the Deanery.

**MENTION OF DISTINCTION:**
According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 (“Sobresaliente”). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

## Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1 On-site training activity aimed primarily at acquiring knowledge acquisition skills. It is characterised by the fact that students are spoken to. Also called master class or exposition, it refers to the oral presentation made by the teacher, (with the support of blackboard, a computer and a projector for the display of texts, graphs, etc.), in front of a group of students. They are expository, explanatory or demonstrative sessions of contents. The size of the group is determined by the limit or physical capacity of the classroom; therefore, it is a single group.

M2 On-site training activity aimed primarily at obtaining knowledge application and research skills. Knowledge is built through interaction and activities. The activity consists of supervised monographic sessions with shared participation (teachers, students, experts). The size of the group is variable, from one large group to various small groups, with a minimum of 6 students to ensure interaction. The evaluation will be based on follow-up records kept by the teacher. Participation and the development of the capacity to problematize should be taken into account.

M3 On-site group-work training activity oriented toward problem solving under the supervision of a teacher. It would correspond to "Animal-free supervised practical work", type e1, from the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students, to differentiate it from a master class.

M4 On-site training activity in groups that takes place in the classroom. It includes working with documents and formulating ideas without handling animals, organs, objects, products, or corpses (e.g., work with articles or documents, clinical case studies, diagnostic analyses, etc.). It would correspond to "Animal-free supervised practical work", type e1, from the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students.

M5 On-site training activity in groups that takes place in the Computer Lab where the computer is used as support for learning. It includes work with computer models, specific software, Web queries, etc. It would correspond to "Animal-free supervised practical work", type e1, from the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students.

M6 On-site training activity in groups carried out in the laboratory. It includes the sessions where the students develop laboratory experiments, make dissections or use the microscopes for the study of histological or histopathological samples actively and autonomously, under the supervision of the professor. It also includes work with healthy animals, objects, products, corpses (e.g., animal handling, bacteriological practices, physiology or biochemistry, meat inspection, etc.). It would correspond to the "Supervised practical non-clinical animal work" type e2 of the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students.

M7 On-site training activity that is defined as the clinical practical work developed in the Veterinary Clinical Hospital or clinical centres ascribed to the University, as well as itinerant clinical practices, mainly with ruminants, equids, pigs, birds and aquatic animals. Also included are necropsies, surgical workshops and training in clinical examination techniques or diagnosis with healthy patients. In these practical sessions the student will always work with animals, which can be healthy (e.g. propaedeutic or obstetrics) or clinical cases (individual or collective), including a protocol or work scheme, being supervised by a teacher and assuming the provision of a service. This type of training corresponds to type e3 of the EAEVE European evaluation called "Clinical Training" (strickly hands-on)". The size of the group will be 5 students or fewer.

M8 A set of on-site training activities carried out by the teacher to provide personalised attention to the student or in small groups with the aim of reviewing and discussing the materials and topics presented in classes, seminars, readings, carrying out projects, etc. The aim is to ensure a truly comprehensive education of the student rather than a mere transfer of information. It is, therefore, a personalized assistance relationship in which the tutor assists, facilitates and guides one or more students in the learning process.

M9 Set of processes that attempt to evaluate the learning outcomes of students expressed in terms of acquired knowledge, capacities, skills or abilities developed and manifested attitudes. It covers a wide range of activities that can be developed for students to demonstrate their training (e.g. written, oral and practical tests, projects or assignments). It also includes the Official Calls.

M10 Autonomous training activity, including activities and coursework, bibliographic searches. The results obtained from unsupervised group and teamwork will be evaluated, with particular attention paid at the time of evaluation to the acquisition of specific knowledge development skills through group work.

M11 Autonomous training activities related to personal study, or the preparation of individual course assignments. The individual preparation of readings, essays, problem solving, papers, reports, etc. will be evaluated through presentations or submissions during theoretical classes, practical classes, seminars and/or tutorials. The evaluation of the submitted papers will consider the structure of the paper, the quality of the documentation, originality, spelling and presentation.

**IN-CLASS LEARNING ACTIVITIES**

| | LEARNING OUTCOMES | HOURS | ECTS |
|---|---|---|---|
| Theoretical lessons (TL)<br>M1 | R1, R2, R3, R4, R5, R6, R7, R8 | 60,00 | 2,40 |
| Problem-solving Practice (PSP)<br>M3 | R4, R8 | 2,00 | 0,08 |
| Laboratory Practice (LP)<br>M6 | R4, R5, R6 | 4,00 | 0,16 |
| Clinical Practice (CP)<br>M7 | R3, R4, R6 | 24,00 | 0,96 |
| Tutorial<br>M8 | R2, R3, R4, R5, R6 | 2,00 | 0,08 |
| Evaluation (Ev)<br>M9 | R1, R2, R3, R4, R5, R6, R7, R8 | 2,00 | 0,08 |
| **TOTAL** | | **94,00** | **3,76** |

**LEARNING ACTIVITIES OF AUTONOMOUS WORK**

| | LEARNING OUTCOMES | HOURS | ECTS |
|---|---|---|---|
| Group work<br>M10 | R1, R2, R3, R4, R5, R6, R7, R8 | 16,00 | 0,64 |
| Individual work<br>M11 | R1, R2, R3, R4, R5, R6, R7, R8 | 40,00 | 1,60 |
| **TOTAL** | | **56,00** | **2,24** |

## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

### Theoretical contents:

| Content block | Contents |
|---|---|
| UD-1. SURGICAL BIOLOGY | Topic 1. Inflammatory response.<br>Topic 2. Scarring, repair and tissue regeneration.<br>Topic 3. Bleeding and Hemostasis.<br>Topic 4. Surgical infections and antibiotic selection.<br>Topic 5. Evidence-based medicine and evaluation of results. |
| UD-2. GENERAL SURGICAL PRINCIPLES | Topic 6. Principles of surgical asepsis. Disinfection and sterilization.<br>Topic 7. Preparation of the patient, personnel, equipment and surgical environment.<br>Topic 8. Surgical instrumentation.<br>Topic 9. Material and suture patterns.<br>Topic 10. Introduction to minimally invasive surgery.<br>Topic 11.Introduction to general oncological surgery and biopsy taking procedures.<br>Topic 12. Introduction to various surgical modalities: laser, radiofrequency, ultrasound, electrosurgery. |
| UD-3. VETERINARY ANESTHESIA AND ANALGESIA | Topic 13. Basic concepts in anesthesia and analgesia and pre-anesthetic evaluation<br>Topic 14. Anesthetic premedication: basic concepts and related drugs.<br>Topic 15. Anesthetic induction: basic concepts, phases of anesthesia and related drugs.<br>Topic 16. Anesthetic Maintenance and Recovery: basic concepts, equipment and related drugs.<br>Topic 17. Analgesia: Physiopathology of surgical pain, evaluation and strategies for pain treatment.<br>Topic 18. Anesthetic monitoring.<br>Topic 19. Anesthetic complications and anesthetic emergencies.<br>Topic 20. Cardiovascular support and adjuvants.<br>Topic 21. Comparative Anesthesia and Algesia. |

| | |
|---|---|
| UD-4. SURGERY OF THE TEGUMENTARY SYSTEM | Topic 22. General and technical principles.<br>Topic 23. Primary closure and by second intention of wounds.<br>Topic 24. Medical-surgical management of skin burns.<br>Topic 25. Principles of plastic and reconstructive surgery<br>Topic 26. Surgical management of specific skin lesions. Tail, finger and foot pad surgery<br>Topic 27. Surgical Oncology of the integumentary system.<br>Topic 28. Surgery of the auricle and external ear.<br>Topic 29. Surgery of the middle and inner ear.<br>Topic 30. Ophthalmic Surgery I<br>Topic 31. Ophthalmic Surgery II |
| UD-5. MAIN SURGICAL PATHOLOGIES OF THE EQUINE SPECIES | Topic 32. Surgery of the digestive system. Esophagus. Small intestine. Large intestine. (Colic).<br>Topic 33. Surgery of the locomotor system. Different surgical techniques to resolve lameness.<br>Topic 34. Surgery of the respiratory system. Sinus, pharynx, larynx and trachea.<br>Topic 35. Surgery of the genitourinary system. Castration. Hernias. Tears in the mare.<br>Topic 36. Wound management. Sutures Bandages. Grafts |

## Organization of the practical activities:

| | Content | Place | Hours |
|---|---|---|---|
| PR1. | Clinical Practice I: Real Clinical Cases (Anesthesia) | Hospital | 6,00 |
| PR2. | Clinical Practice II: Real Clinical Cases (Anesthesia) | Hospital | 6,00 |
| PR3. | Clinical Practice III: Real Clinical Cases (Surgery Consultation) | Hospital | 6,00 |
| PR4. | Clinical Practice IV: Real Clinical Cases (Operating Room) | Hospital | 6,00 |
| PR5. | Clinical Practice V: Practical test | Hospital | 2,00 |
| PR6. | Equine Surgery Practice | Hospital | 2,00 |
| PR7. | Practical workshop on sutures and ligatures. | Hospital | 2,00 |
| PR8. | Practical workshop on Asepsis and anaesthetic machine | Hospital | 2,00 |

## Temporary organization of learning:

| Block of content | Number of sessions | Hours |
|---|---|---|
| UD-1. SURGICAL BIOLOGY | 3,00 | 6,00 |
| UD-2. GENERAL SURGICAL PRINCIPLES | 6,00 | 12,00 |
| UD-3. VETERINARY ANESTHESIA AND ANALGESIA | 15,00 | 30,00 |
| UD-4. SURGERY OF THE TEGUMENTARY SYSTEM | 13,00 | 26,00 |
| UD-5. MAIN SURGICAL PATHOLOGIES OF THE EQUINE SPECIES | 10,00 | 20,00 |

## References

* Tobias KM, Johnston SA. Veterinary Surgery. Small Animal. 2nd Ed. Elsevier & Saunders. Missouri (USA). 2018.
* Fossum TW. Small Animal Surgery. 5h Ed. Mosby Elsevier. Missouri (USA). 2018
* Slatter D. Tratado de Cirugía en Pequeños Animales (4 vol). 3rd Ed. Elsevier. USA. 2003.
* Duke-Novakovski T, Seymur C. Manual of Canine and Feline Anaesthesia and Analgesia. 3rd Ed. BSAVA. 2016.
* Dugdale V. Veterinary Anaesthesia: Principles to Practice. Willey-Blackwell. Oxford 2011.
* Thurmon JG, Tranquili WJ, Benson GJ. Veterinary Anaesthesia. 3rd Ed. Williams & Wilkins. Baltimore. 2001
* Ettinger SJ, Feldman EC, Coté E. Textboook of veterinary Internal Medicine Expert Consult. 8ª Ed. Elsevier. Madrid. 2017.

# Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

## Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

## Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

### 1. Educational Activities of Onsite Work:

**All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject** will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

[X] Microsoft Teams

[ ] Kaltura

## Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

### 1. Educational Activities of Onsite Work:

**All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject**, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

[X] Microsoft Teams

[ ] Kaltura

Explanation about the practical sessions:

The adaptation of the practical sessions to the non-classroom format will be carried out as follows:

A. Clinical practices of real cases:

1. Equipment workshop in the operating room: The Surgery and Anesthesia staff will record videos showing the equipment present in the operating room as well as its main function in the surgical field. This type of commented content will be uploaded to the UCV Net Platform of the Subject.

2. Surgical asepsis workshop: The Surgery and Anesthesia personnel will record videos showing how to perform the main procedures for hand washing, dressing gown and gloves

aseptically by a surgeon or instrumentalist. This type of commented content will be uploaded to the UCV Net Platform of the Subject.

3. Anesthesia machine workshop: The Surgery and Anesthesia personnel will record videos showing the anesthesia machine, as well as all its parts and precise circuits for each patient. This type of commented content will be uploaded to the UCV Net Platform of the Subject.

4. Anesthetic Monitoring Workshop: The Surgery and Anesthesia personnel will record videos showing the surgical monitors, as well as the interpretation of basic cardiovascular and respiratory parameters. This type of commented content will be uploaded to the UCV Net Platform of the Subject.

5. Real clinical cases Surgery: In these face-to-face practices, it is intended that the student participate and learn about the patient's preparation procedures, clouded by the surgical field and basic instrumentation. From the clinical cases presented at the Veterinary Hospital of the UCV, the surgical staff will record these procedures where they will comment on the main details to keep in mind, as well as the most common errors that may occur. This type of commented content will be uploaded to the UCV Net Platform of the Subject

6. Real clinical cases Anesthesia: In these face-to-face practices, it is intended that the student participates and knows the procedures of catheterization of the peripheral route and administration of premeditation, maintenance of airways and incubation, maintenance and anesthetic recovery. Based on the clinical cases presented at the Veterinary Hospital of the UCV, the anesthesia personnel will record these procedures where they will comment on the main details to keep in mind, as well as the most common errors that may occur. This type of commented content will be uploaded to the UCV Net Platform of the Subject

B. Clinical practice exposition real cases

7. The practical evaluation carried out in this session will be transformed into an evaluable questionnaire on the UCV Net Platform on audiovisual content uploaded to the UCV Net platform for adaptation to practices.

C. Practice of Surgery in Large Animals:

8. The Surgery staff will prepare, through audiovisual media, content showing the main limb blocks in equines, as well as their key anatomical relationships. This type of commented content will be uploaded to the UCV Net Platform of the Subject.

Points 1 to 6 replace the practices of the face-to-face teaching guide 1-4 and 8. Point 7 replaces practice 5 of the face-to-face teaching guide. Point 8 replaces practice 6 of the classroom teaching guide.

## 2. System for Assessing the Acquisition of the competences and Assessment System

**ONSITE WORK**

**Regarding the Assessment Tools:**

[ ] The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

[X] The following changes will be made to adapt the subject's assessment to the online teaching.

| Course guide | | Adaptation | |
|---|---|---|---|
| Assessment tool | Allocated percentage | Description of the suggested changes | Platform to be used |
| Written evaluation of the knowledge and skills | 40 | The theory evaluation will be carried out on-line through the UCV-NET platform | UCV NET |
| Assessment of achievement in practical classes | 10 | A practical test will be carried out on-line through the UCV NET platform | UCV NET - TEAMS |
| Evaluation of practical laboratory work | 10 | It is no longer evaluated in isolation, being evaluated in the section on evaluation of practical work in the clinic (0%) | UCV NET - TEAMS |
| Evaluation of practical clinical work | 10 | It is no longer evaluated in isolation, being evaluated in the section on evaluation of practical work in the clinic (0%) | UCV NET - TEAMS |

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

**Comments to the Assessment System:**

The students who have carried out the evaluation of the practical sessions (carried out in their week of surgery), will not have to be evaluated of the practical contents again by the UCV Net Platform. The rest of the students, who have not been evaluated, despite having partially completed the practices, they must undergo the evaluation following this Addendum.