DETAILS OF THE SUBJECT

Title (of the subject): **NEUROANATOMÍA Y ANATOMÍA TOPOGRÁFICA**
Code: 101456
Degree/Master: **GRADO DE VETERINARIA**
Name of the module to which it belongs: **FORMACIÓN BÁSICA COMÚN**
Field: **ANATOMÍA Y EMBRIOLOGÍA VETERINARIAS**
Character: **BASICA**
Duration: **FIRST TERM**
ECTS Credits: 6
Classroom hours: 60
Face-to-face classroom percentage: 40%
Online platform: [http://moodle.uco.es/m1718/](http://moodle.uco.es/m1718/)

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REQUIREMENTS AND RECOMMENDATIONS

Prerequisites established in the study plan

To have passed the subject **Embriología y Anatomía Sistemática**, of the same degree. The Students who does not fulfill this previous requirement could not neither take or attend the activities of the subject.
TEACHING GUIDE

Recommendations

Attention, continuous study of the scheduled classroom activities. Attendance is strongly recommended to all classroom activities, theoretical and practical activities of the subject.

SKILLS

CE7  Morphology and Topography of organs and systems.
CE8  Structure of organs and systems.

OBJECTIVES

Having a basic and integrated knowledge of the Central Nervous System and Common Integument of the domestic animals.

Have a specific knowledge of the morphology, location, topography and relationships of the organs and anatomical structures of the body regions in species of veterinary interest: carnivores, horse, ruminants, swine and birds.

CONTENT

1. Theory contents

CENTRAL NERVOUS SYSTEM


ANATOMY OF THE CENTRAL NERVOUS SYSTEM. GENERAL MORPHOLOGY. Morphology, size and evolutionary aspects. Introductory morphological study. SPINAL CORD. Configuration and topography: extension and portions, grooves and fissures, columns of white matter. Organization and structure: Central canal, gray matter (nuclei and columns of the dorsal, intermediate and ventral horns) and white matter (tracts of the dorsal, lateral and ventral columns).


TELENCEPHALON (Brain). Configuration: Brain Hemispheres and lateral ventricles; telencephalon components: Striatum (basal ganglia). Paleopalium
NEUROANATOMÍA Y ANATOMÍA TOP.

TEACHING GUIDE


SPECIAL SOMATIC AFFERENT (SSA) PATHWAYS. Visual, Auditory and vestibular (balance) pathways.

SOMATIC EFFERENT PATHWAYS. Upper and lower motor systems. Pyramidal and extrapyramidal systems. Cerebellar function.


SENSE ORGANS


VISUAL SENSE ORGANS. Development. The Eyeball. The retina (internal tunic). The Optic nerve. The vascular tunic: choroid, ciliary body and iris. The fibrous tunic: sclera and cornea. Refracting media of the eyeball: Cristallyne and humors of the eyeball.


SENSE OF HEARING. The inner ear (vestibulocochlear organ). membranous labyrinth: vestibular and cochlear portions. bony labyrinth: vestibule, cochlea and internal acoustic meatus. Vessels and nerves.

Middle ear. Sound transmission substrate. Typanic cavity: General organization. External ear: external acoustic meatus and pinna. Cartilages and muscles of the hear. Innervation and blood supply.

COMMON INTEGUMENT


2. Practical contents

REGIONAL ANATOMY OF THE CARNIVORES


REGIONAL ANATOMY OF THE HORSE


REGIONAL ANATOMY OF THE RUMINANTS


CENTRAL NERVOUS SYSTEM AND SENSE ORGANS


Methodological adaptations for part-time students and students with disabilities and special educational needs

Any specific case will be analyzed.

### Face-to-face activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Large group</th>
<th>Medium group</th>
<th>Small group</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Assessment activities</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Laboratory</td>
<td>-</td>
<td>-</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Lectures</td>
<td>20</td>
<td>12</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Seminar</td>
<td>2</td>
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<td>14</td>
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<td><strong>Total hours:</strong></td>
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<td>12</td>
<td>24</td>
<td>60</td>
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### Not on-site activities

<table>
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<tr>
<td>Bibliographic consultations</td>
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<tr>
<td>Finding information</td>
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<tr>
<td>Self-study</td>
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<td><strong>Total hours:</strong></td>
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### Evaluation

#### Skills

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<tr>
<th>Tools</th>
<th>Attendance sheets</th>
<th>Multiple choice exam</th>
<th>Short answer tests</th>
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<tbody>
<tr>
<td>CE7</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CE8</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td><strong>Total (100%)</strong></td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
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<tr>
<td><strong>Minimum grade.(*)</strong></td>
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</tr>
</tbody>
</table>

(*) Minimum grade necessary to pass the subject.

General clarifications on instruments for evaluation:

The above percentages are in accordance to the relative proportion of each assessment tool on the overall score on each block of the subject. However, each of the assessment tests must be overcome independently, with a minimum score of 5 out of 10.

Clarifications on the methodology for part-time students and students with disabilities and special educational needs:

Any specific case will be analyzed.

Qualifying criteria for obtaining honors: INDIVIDUAL QUALIFICATION OF THE STUDENTS
Los resultados obtenidos en la prueba parcial se mantendrán hasta las dos primeras convocatorias oficiales de Febrero, pero no hasta la convocatoria de Septiembre. La prueba parcial constará de dos partes, una evaluación continuada y un examen práctico. Para superar la prueba parcial ambas partes deberán superarse independientemente.

BIBLIOGRAPHY

1. Basic Bibliography:


2. Further reading:


TEACHING GUIDE

(Aparato locomotor) y II (Sistemas viscerales). Editorial Médica Panamericana, Buenos Aires.


COORDINATION CRITERIA

- Delivery date job
- Performing activities

SCHEDULE

<table>
<thead>
<tr>
<th>Period</th>
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<th>Laboratory</th>
<th>Lectures</th>
<th>Seminar</th>
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<td>15# Week</td>
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<td>1</td>
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</tbody>
</table>

Total hours: 24

The methodological strategies and the evaluation system contemplated in this Teaching Guide will be adapted according to the needs presented by students with disabilities and special educational needs in the cases that are required.