

## DISCIPLINE DESCRIPTION

### 1. Information on the study programme

1.1 Academic Institution	<b>University of Oradea</b>
1.2 Faculty	<b>Faculty of Environmental Protection</b>
1.3 Department	<b>Animal Husbandry and Agritourism</b>
1.4 Field of study	<b>Animal Husbandry</b>
1.5 Cycle of study	<b>Bachelor</b>
1.6 Study programme/Qualification	<b>Animal Husbandry/Engineer</b>

### 2. Information on the discipline

2.1 Name of discipline	<b>Anatomy Histology Embryology I</b>						
2.2 Course holder	<b>Lect. PhD. Eng. Codrin Gavra</b>						
2.3 Seminar/Laboratory/Project holder	<b>Lect. PhD. Eng. Codrin Gavra</b>						
2.4 Year of study	<b>I</b>	2.5 Semester	<b>I</b>	2.6 Type of evaluation	<b>Exam</b>	2.7 Regime of discipline	<b>C</b>

(C) Compulsory; (O) Optional; (E) Elective

### 3. Total estimate time (hours per semester of didactic activities)

3.1 Number of hours per week	<b>4</b>	out of which: 3.2 course	<b>2</b>	out of which: 3.3 seminar/laboratory/project	<b>2</b>
3.4 Total hours in the curriculum	<b>56</b>	out of which: 3.5 curs	<b>28</b>	out of which: 3.6 seminar/laboratory/project	<b>28</b>
<b>Time allotment</b>					<b>hours</b>
Study assisted by manual, course support, bibliography and notes					<b>12</b>
Additional documentation in the library/on specialised electronic platforms and in the field					<b>14</b>
Preparation of seminars/laboratories/topics/reports, portfolios and essays					<b>10</b>
Tutorship					<b>2</b>
Examinations					<b>4</b>
Other activities: consultations					<b>2</b>
3.7 Total hours of individual study	<b>44</b>				
3.8 Total hours per semester	<b>100</b>				
3.9 Number of credits	<b>4</b>				

### 4. Prerequisites (where appropriate)

4.1 curriculum	•
4.2 competences	<ul style="list-style-type: none"> <li>• Basic knowledge regarding the field of animal biology;</li> <li>• Competences of information and documentation, the application of knowledge, of individual and group activity.</li> </ul>

### 5. Conditions (where appropriate)

5.1. related to course	<ul style="list-style-type: none"> <li>• Lecture hall equipped with laptop, projector, whiteboard, plates, which ensures conditions for active and interactive learning;</li> <li>• It requires compliance with the rules of ethics and good conduct during the course and respecting the timetable;</li> <li>• Active presence and attendance at courses is recommended, absences implicitly affecting the final result. In the case of absences, the responsibility lies with the students to determine the part of the lost subject matter and take measures for recovery;</li> <li>• Mobile phones and similar devices are not allowed during classes.</li> </ul>
5.2. related to seminar/laboratory/ project	<ul style="list-style-type: none"> <li>• Anatomy Histology Embryology laboratory equipped with microscopes, histological preparations and preserved anatomical parts, plates;</li> <li>• Students are required to wear white robe at the laboratory works;</li> <li>• Mobile phones and similar devices are not allowed during classes.</li> </ul>

<b>6. Specific competences acquired</b>	
Professional competences	<ul style="list-style-type: none"> <li>• Identification of the main notions, concepts and laws specific to the cellular and tissue levels of organisation and functioning of living matter;</li> <li>• Knowing of the structure and functions of the animal body and the relationships between its various constituent organs;</li> <li>• The ability to identify histological preparations and preserved anatomical parts, regardless of their origin, with specific differences;</li> <li>• Identification of methods, techniques, usual methods of observation, investigation and exploration of animal organisms and their organization;</li> <li>• Understanding of the development process of the cells, tissues, and their specific characters, depending on the role they fulfil.</li> </ul>
Transversal competences	<ul style="list-style-type: none"> <li>• Use of effective lifelong learning methods and techniques for the purpose of training and continuous professional development;</li> <li>• Responsible and effective implementation of the tasks related to the professions in the field, while respecting the principles of professional ethics;</li> <li>• Identifying the role of a team and assuming the appropriate professional and personal responsibilities;</li> <li>• Cultivating a correct and timely work discipline, responsibility for work, team spirit formation, and awareness of the importance of search and research.</li> </ul>

### 7. Objectives of discipline (coming from the specific competences acquired)

7.1 General objective	<ul style="list-style-type: none"> <li>• Acquiring theoretical and practical knowledge about the morphology of the whole animal body, the organs, systems and components, respectively the student develops his/her skills to correctly apply the accumulated knowledge.</li> </ul>
7.2 Specific objectives	<ul style="list-style-type: none"> <li>• Knowledge and understanding of the macroscopic composition of the animal body;</li> <li>• Acquiring the notions of osteology, myology, arthrology;</li> <li>• Understanding the structure of the animal body and the interrelations with physiology;</li> <li>• Acquiring the method of describing the structure of the anatomical formations in correlation with the species.</li> </ul>

### 8. Content\*

8.1 Course	Methods of teaching	No. of hours/remarks
<b>I. Introduction to anatomy, histology, embryology</b>	Lecture, debate	2
<b>II. Reproduction, embryology</b> – gametogenesis, fecundation, nidation, egg segmentation, embryonic annexes	Lecture, video projection system of the didactic material, debate, plates	4
<b>III. Histology</b> – epithelial tissue, connective tissues, blood and lymphatic tissue, muscle tissue, nervous tissue	Exposing, video projection system of the didactic material, plates, debate	6
<b>IV. Osteology</b> – thoracic limb skeleton, pelvic limb skeleton, spinal column, ribs, sternum; skeleton of the head – neurocranium (occipital, parietal, interparietal, frontal, sphenoid, temporal, etmoid), viscerocranium (nasal, maxilla, incisive, pterygoid, lacrimal, zygomatic, palatine, vomer, mandible)	Lecture, exemplification, video projection system of the didactic material, debate, plates	8
<b>V. Arthrology</b> (head joints, spinal column joints, rib joints, thoracic limb joints, pelvic limb joints)	Lecture, video projection system of the didactic material, debate, plates	2
<b>VI. Myology</b> (generalities, the muscles of the head, neck, trunk, abdominal walls, thoracic limb, pelvic limb)	Lecture, video projection system of the didactic material, debate, plates	6

<b>Bibliography:</b>		
1. <b>Mireșan Vioara</b> , 2009 – <i>Comparative anatomy, histology and embryology</i> . AcademicPres Publishing House – Cluj-Napoca.		
2. <b>Gheție V., Paștea E., Riga I. Th.</b> , 1954 – <i>Atlas of comparative anatomy</i> . Vol. I. Agro-Forestry State Publishing House – București.		
3. <b>Gheție V., Chițescu Șt., Coțofan V., Hillebrand A.</b> , 1976 – <i>Atlas of domestic birds anatomy</i> . Academy of the Socialist Republic of Romania Publishing House.		
4. <b>Gheție V., Bica Popii O., Chițescu Șt., Nicolescu V., Oprișescu P., Bălănescu F.</b> , 1967 – <i>Anatomy of domestic animals</i> . Didactics and Pedagogy Publishing House – București.		
5. <b>Paștea E.</b> , 1985 – <i>Comparative Anatomy of domestic animals</i> . Vol. I, II. Didactics and Pedagogy Publishing House – București.		
6. <b>Ganta C. V.</b> , 2007 – <i>Anatomy of domestic animal</i> . Vol. I, II, III. Orizonturi Universitare Publishing House – Timișoara.		
7. <b>Botărel S., Cotea C., Gaboreanu M.</b> , 1982 – <i>Histology and Veterinary Medical Embryology</i> . Didactics and Pedagogy Publishing House – București.		
8. <b>Miclea M., Vioara Mireșan</b> , 1997 – <i>Anatomy, histology, embryology</i> . Tipo Agronomia Publishing House – Cluj-Napoca.		
9. <b>Miclea M., Vioara Mireșan, Miclăuș V.</b> , 1998 – <i>Anatomy and histology of domestic animals</i> . Genesis Publishing House – Cluj-Napoca.		
8.2 Laboratory	Methods of teaching	No. of hours/remarks
<b>I. Introduction to anatomy, histology, embryology</b>	Laboratory presentation, exposing, conversation	2
<b>II. Reproduction, embryology</b> – gametogenesis, fecundation, nidation, egg segmentation, embryonic annexes	Exposing, conversation, macroscopic study of formalinized organs to different species of domestic animals, plates, anatomical models	4
<b>III. Histology</b> – epithelial tissue, connective tissues, blood and lymphatic tissue, muscle tissue, nervous tissue	Topographic sections, exposing, formalinized preparations, plates	6
<b>IV. Osteology</b> – thoracic limb skeleton, pelvic limb skeleton, spinal column, ribs, sternum; skeleton of the head – neurocranium (occipital, parietal, interparietal, frontal, sphenoid, temporal, etmoid), viscerocranium (nasal, maxilla, incisive, pterygoid, lacrimal, zygomatic, palatine, vomer, mandible)	Exposing, disparate bones from different species of domestic animals, skeletons, plates, worksheets, anatomical models	8
<b>V. Arthrology</b> (head joints, spinal column joints, rib joints, thoracic limb joints, pelvic limb joints)	Exposing, conversation, topographical sections	2
<b>VI. Myology</b> (generalities, the muscles of the head, neck, trunk, abdominal walls, thoracic limb, pelvic limb)	Exposing, formalinized preparations, plates, anatomical models	6
<b>Bibliography:</b>		
1. <b>Mireșan Vioara</b> , 2009 – <i>Comparative anatomy, histology and embryology</i> . AcademicPres Publishing House – Cluj-Napoca.		
2. <b>Gheție V., Paștea E., Riga I. Th.</b> , 1954 – <i>Atlas of comparative anatomy</i> . Vol. I. Agro-Forestry State Publishing House – București.		
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5. <b>Paștea E.</b> , 1985 – <i>Comparative Anatomy of domestic animals</i> . Vol. I, II. Didactics and Pedagogy Publishing House – București.		
6. <b>Ganta C. V.</b> , 2007 – <i>Anatomy of domestic animal</i> . Vol. I, II, III. Orizonturi Universitare Publishing House – Timișoara.		
7. <b>Botărel S., Cotea C., Gaboreanu M.</b> , 1982 – <i>Histology and Veterinary Medical Embryology</i> . Didactics and Pedagogy Publishing House – București.		
8. <b>Miclea M., Vioara Mireșan</b> , 1997 – <i>Anatomy, histology, embryology</i> . Tipo Agronomia Publishing House – Cluj-Napoca.		

**9. Miclea M., Vioara Mireşan, Miclăuş V., 1998 – Anatomy and histology of domestic animals. Genesis Publishing House – Cluj-Napoca.**

\* The content, respectively the number of hours allocated to each course/seminar/laboratory/project will be detailed during the 14 weeks of each semester of the academic year.

\* The books presented in the bibliography are printed in Romanian language. Titles and Publishing Houses have been translated into English language for the discipline description.

**9. Corroboration of discipline content with the expectations of the epistemic community, professional associations and representative employers from the field corresponding to the study programme**

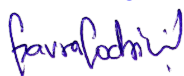
- Discipline exists in the curricula of the universities and profile faculties of Romania, thus being in accordance with the curriculum in other university centres;
- By acquiring theoretical notions and practical aspects included in the discipline of *Anatomy, Histology, Embryology*, students acquire consistent knowledge to facilitate their application in professional work;
- For a better concordance and coordination of the discipline with the requirements of the labour market, have and will occur meetings with representatives of the business environment, respectively with professors from pre-university education.

**10. Evaluation**

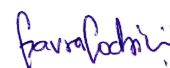
Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade
10.4 Course	- The correctness of assimilated knowledge; - Coherence and logic in the subject's exposure; - Level of assimilation of the discipline specific terms.	Written examination, active participation in courses	70%
10.5 Laboratory	- The ability to apply the acquired notions in practice; - Level of assimilation of laboratory work.	Colloquium, active participation in the laboratory	30%
10.6 Minimum standard of performance			
<ul style="list-style-type: none"> <li>• Correct assimilation of elementary notions and terms specific to discipline, respectively the names of anatomical apparatus, organs and systems.</li> </ul>			

Date of completion  
19.06.2023

Signature of course holder  
Lecturer Dr. Eng. Codrin Gavra  
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Signature of seminar  
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Date of approval in the department  
21.06.2023

Signature of the Head of Department  
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