DISCIPLINE SHEET

ACADEMIC YEAR

2022- 2023

1. DATA ABOUT THE STUDY PROGRAM

1.1 Institution of higher education	UNIVERSITY OF MEDICINE AND PHARMACY OF CRAIOVA
1.2 Faculty	**MEDICINE**
1.3 Department	1
1.4 Study Domain	HEALTH
1.5 Study cycle	LICENCE
1.6 Study program/ Qualification	MEDICINE

2. DATA ABOUT THE DISCIPLINE

2.1 DISCIPLINE NAME				**ANATOMY. EMBRYOLOGY**	
2.2. Discipline code				**MED11201**	
2.3 The holder of course activities				Mindrila Ion, Melinte Petru Razvan, Popescu Smaranda, Marinaș Cristian, Mesina Mihaela, Taisescu Oana, Pirici Ionica, Capitanescu Bogdan, Margineanu Ovidiu Marcel, Sas Lorena, Cercelaru Liliana, Stanescu Radu	
2.4 The holder of seminar activities				Mindrila Ion, Melinte Petru Razvan, Taisescu Oana, Pirici Ionica, Popescu Smaranda, Marinaș Cristian, Mesina Mihaela, Capitanescu Bogdan, Margineanu Ovidiu Marcel, Sas Lorena, Stanescu Radu, Cercelaru Liliana, Sirbuleț Carmen, Comanescu Cristina, Rocsoreanu Cristina, Enache Irina	
2.5.Academic degree				Professor, Associate Professor ,Lecturer, Universitar Asistent	
2.6. Employment (base norm/associate)				Base norm	
2.7. Year of study	**1**	2.8. Semester	**I** **II**	2.9. Course type (content) 2.10. Regime of discipline (compulsoriness)	**CFD**

3. TOTAL ESTIMATED TIME (teaching hours per semester) – SEMESTER I

3.1 Number of hours per week	**6**	3.2 From which course	**2**	3.3 seminary/laboratory	**4**
3.4 Total hours in curriculum	**84**	3.5 From which course	**28**	3.6 seminary/laboratory	**56**
Time found distribution (hours)					
Study from manual, course support, bibliography, and notes					**35**
Additional documentation in the library, specialized electronic platforms and, on the field					**30**
Training seminars / labs, homework, reports, portfolios, and essays					**30**
Tutoring					**2**
Examinations					**7**
Other activities, counselling, student scientific programs					**12**

3.7 Total hours of individual study	**116**
3.9 Total hours per semester	**200**
3.10 Number of credits	**8**

3. TOTAL ESTIMATED TIME (teaching hours per semester) – SEMESTER II

3.1 Number of hours per week	**6**	3.2 From which course	**2**	3.3 seminary/laboratory	**4**
3.4 Total hours in curriculum	**84**	3.5 From which course	**28**	3.6 seminary/laboratory	**56**
Time found distribution (hours)					
Study from manual, course support, bibliography, and notes					**20**
Additional documentation in the library, specialized electronic platforms and, on the field					**20**
Training seminars / labs, homework, reports, portfolios, and essays					**17**
Tutoring					**2**
Examinations					**4**
Other activities, counselling, student scientific programs					**3**

3.7 Total hours of individual study	**66**
3.9 Total hours per semester	**150**
3.10 Number of credits	**6**

4. PREREQUISITES (where appropriate)

4.1 curriculum	- The students have to have general background knowledges of anatomy and cell biology
4.2 competency	-

5. CONDITIONS (where appropriate)

5.1. of curse deployment	Lecture Hall with projector / online Preparing in advance by individual study (teaching material on the discipline site)

5.2. of seminary/ lab deployment	Anatomy Lab / online Preparing in advance by individual study

6. SPECIFIC COMPETENCES ACCRUED	
PROFESSIONAL COMPETENCES	**C1**. Knowledge, understanding and use of the specific language - to know the concepts of general and systemic anatomy in clinical context - identifying the state of ill-health and accurately diagnosing the condition(s) **C4** – To address health issues/illness from the perspective of community specifics, directly related to the social, economic and/or the cultural specificity. **C5** – To address health issues/illness from the perspective of community specifics, directly related to the social, economic and/or the cultural specificity.
TRANSVERSAL COMPETENCES	**CT1**. Autonomy and responsibility - acquiring moral guidelines, formation of professional and civic attitudes that enable students to be fair, honest, peaceful, cooperative, sympathetic to the suffering, available to help people, interested of community development; - to know, respect and contribute to the development of moral values and professional ethics; - learning to recognize when a problem arises and provide responsible solutions to solve it; **CT2**. Social interaction - to recognize and respect diversity and multiculturalism; - to have or learn to develop teamwork skills; - to communicate requirements orally and in writing, working methods, results, consult with the team; - to get involved in volunteering, to know the essential problems of the community. **CT3**. Personal and professional development - to be open to lifelong learning; - to realize the need for individual study as the basis of personal autonomy and professional development; - to optimally and creatively exploit their potential in the collective activities.

7. DISCIPLINE OBJECTIVES (based on the grid of specific competences acquired)

7.1 The general objective of the discipline	Acquiring knowledge needed to understand and use academic language of international anatomical terminology Learning concepts underlying anatomic curricular practices and medical manoeuvres
7.2 The specific objectives of the discipline	Upon completion of discipline the student will be able to: - Define the fundamental processes of formation and development of the human body - Recognize and define descriptive and functional elements of the bones, muscles, nerves and vessels in the head, neck, upper limbs, lower limbs and trunk wall - To work as a team to dissect and identify the vascular, nervous and muscular elements in the head, neck, trunk and walls - Use virtual anatomy for anatomical knowledge improvement - To integrate theoretical and practical knowledge gained in the study of Anatomy with those obtained from other fundamental disciplines and use them as a platform for clinical training; - Communicate clearly, rigorous knowledge gained or results; - Issue hypotheses and verify by experiment - Be open to acquiring moral guidelines, training of professional and civic attitudes that enable students to be fair, honest, non-confrontational, cooperative and understanding in the face of suffering - Learn to recognize when a problem arises and provide responsible solutions to solve them. - To recognize and have respect for diversity and multiculturalism; - Communicate orally and in writing requirements, working methods, results, consult with the team; - To get involved in volunteering, to know the essential problems of the community. - To realize the need for individual study as the basis of personal autonomy and professional development; - The ability to use information and communication technology; - Take initiative to engage in educational activities and scientific discipline

8. CONTENTS

8.1 Course (content units)	Nr. ore
Ist Semester	
AES1.1. Introduction to the study of the Anatomy. Introduction to the study of the osteology	**2**
AES1.2. General embryology: gametogenesis	**2**
AES1.3. General embryology: blastocyst, bilaminar and trilaminar germ disc formation	**2**

AES1.4. General embryology: embryo formation and sketching of primordial organs. Fetus annexes and placenta	**2**
AES1.5. Special embryology: skeletal system development	**2**
AES1.6. Special embryology: muscular system development. Introduction to myology: muscle structure and classification	**2**
AES1.7. Introduction to the study of the joints: classification, structure, movement types	**2**
AES1.8. Shoulder, elbow and hand joints	**2**
AES1.9. Hip, knee and foot joints	**2**
AES1.10. Joints of the skull and vertebral column; head and torso movements	**2**
AES1.11. Biomechanics of posture and complex movements	**2**
AES1.12. Arterial networks of the superior and inferior limbs; trunk wall vascularization. Lymphatic system of the trunk and the limbs	**2**
AES1.13. The spinal nerves and brachial plexus; sensitive and motor innervations areas of the trunk and the superior limbs	**2**
AES1.14. Lumbar and sacral plexus; sensitive and motor innervations areas of the inferior limbs	**2**
IInd Semester	
AES2.1. Special embryology: Development of the nervous system	**4**
AES2.2. Overview of the organization of the central nervous system. Functional structure of the spinal cord	**2**
AES2.3. Functional structure of the brain stem	**2**
AES2.4. Cranial nerves	**2**
AES2.5. Functional structure of the cerebellum and diencephalon	**2**
AES2.6. Functional structure of the telencephalon. Reticular formation	**2**
AES2.7. Cerebrovascular and ventricular systems; cerebrospinal fluid spaces; cranial meninges and vascular supply of the brain	**2**
AES2.8. Brain functional systems: motor and sensory systems	**2**
AES2.9. Brain functional systems: limbic system. Special senses: olfaction, taste, vision, hearing, balance	**2**
AES2.10. Special embryology: Development of cephalic extremity	**2**
AES2.11. Central nervous system and craniofacial malformations	**2**
AES2.12. Functional anatomy of the larynx	**2**
AES2.13. Head and neck vascular and lymphatic systems	**2**
BIBLIOGRAPHY Courses published on the discipline site Victor Papilian, Anatomia Omului, vol 1, vol 2, Viorel Ranga, Anatomia Omului, vol1, vol2, vol5 Gray's Anatomy for Students, Langman Embriologie Medicala, ed. Medicală Callisto, 2008	
8.2 Practical work (topics / themes)	
Ist Semester	
AES1.LP1. Protection rules inside dissection rooms. Human body parts. Axis, planes, landmarks used in descriptive anatomy. Introduction in osteology; bone classification; general terms used in bone study	**2**
AES1.LP2.Vertebral column. General features of vertebra. Cervical, thoracic and lumbar vertebra: regional and special features	**2**
AES1.LP3.Sacrum and coccyx bone. Vertebral column as a whole	**2**
AES1.LP4.Osteology of the superior limb: clavicle and scapula. Osteology of the trunk: sternum	**2**
AES1.LP5.Osteology of the trunk: ribs. Osteology of the superior limb: humerus, radius, ulna	**2**
AES1.LP6.Osteology of the hand	**2**
AES1.LP7.Osteology of the inferior limb: coxal bone. Pelvis – morphometric features	**2**
AES1.LP8.Osteology of the inferior limb: femur, patella	**2**
AES1.LP9.Osteology of the inferior limb: tibia, peroneum	**2**
AES1.LP10.Osteology of the foot	**2**
Evaluation I	**2**
AES1.LP11.Introduction to myology: general features of the muscles and the annexes. Spinal nerve: posterior branches. Vascularization and innervation of the back and the neck	**2**
AES1.LP12.Dissection of the back and the neck muscles	**2**
AES1.LP13.Dissection of the anterior and lateral thorax wall muscles. Intercostal nerve and artery. Mammary gland	**2**
AES1.LP14.Dissection of axilla: axilla walls; brachial plexus; axillary artery and vein; lymphatic ganglions of axilla	**2**
AES1.LP15.Brachial plexus – terminal branches. Dissection of the anterior compartment of arm: muscles, vessels and nerves	**2**
AES1.LP16.Dissection of the anterior compartment of forearm: muscles, vessels and nerves	**2**
AES1.LP17.Dissection of scapular area. Dissection of posterior compartment of arm. Dissection of posterior compartment of forearm and hand	**2**
Evaluation II	**2**

AES1.LP18.Dissection of the anterior and lateral abdominal wall	**2**
AES1.LP19.Inguinal canal	**2**
AES1.LP20.Lumbar plexus. Dissection of the anterior and medial compartments of thigh. Femoral artery	**2**
AES1.LP21.Dissection of the anterior and lateral compartment of leg. Dissection of the posterior compartment of foot	**2**
AES1.LP22.Sacral plexus. Dissection of the gluteus region	**2**
AES1.LP23.Dissection of the posterior compartment of thigh. Popliteus region	**2**
AES1.LP24.Dissection of the posterior compartment of leg	**2**
AES1.LP25.Dissection of the posterior compartment of foot	**2**
Evaluation III	**2**
IInd Semester	
AES1.LP1. Bones of the neural skull: frontal, parietal, occipital, ethmoid	**2**
AES1.LP2. Bones of the neural skull: temporal, sphenoid	**2**
AES1.LP3. Bones of the facial skull: maxilla, nasal, lacrimal, zygomatic, palatin, vomer	**2**
AES1.LP4. Bones of the facial skull: mandible. Frontal view of the skull	**2**
AES1.LP5. Lateral, occipital and vertical view of the skull. Skull sutures. Fontanelles	**2**
AES1.LP6. Exobase and endobase of the skull. Temporal fossa, infratemporal fossa, pterigopalatine fossa	**2**
Evaluation I: cranium	**2**
AES1.LP7. Spinal cord: external features and relations, internal organization. Spinal meninges. Encephalon: parts. Cranial meninges	**2**
AES1.LP8. Brain stem: external features, cranial nerves origins. Cerebellum: external features, lobes. Fourth ventricle	**2**
AES1.LP9. Cerebral hemispheres: external configuration, gyri, sulci	**2**
AES1.LP10. Diencephalon. Basal Ganglia. Internal Capsule	**2**
AES1.LP11. Standard sagital, horizontal and frontal sections through encephalon	**2**
AES1.LP12. Cerebral ventricles I, II and III; cerebrospinal fluid circulation. Arterial and venous circulation of encephalon: carotid and vertebral basilar systems, dura mater venous sinuses	**2**
Evaluation II: spinal cord and brain	**2**
AES1.LP13. Orbit: walls, ocular bulb: layers, content; ocular bulb annexes: lacrimal system, conjunctiva, eye-lids, and eye bulb muscles. Cranial nerves III, IV, Va, VI	**2**
AES1.LP14. Cavities inside temporal bone. External, middle and inner ear. Cranial nerve VIII	**2**
AES1.LP15. Cervical fascia. Neck superficial venous system. Platysma muscle. Cervical plexus	**2**
AES1.LP16. Neck muscles: sternocleidomastoid and infrahioid muscles. Cranial nerve IX. Scalen and prevertebral muscles. Subclavian artery and vein	**2**
AES1.LP17. Vascular and nervous bundle of neck: carotid artery, vagal nerve, internal jugular vein. Sympatic cervical ganglia. Supraclavicular part of brachial plexus	**2**
AES1.LP18. Hioid bone, suprahioid muscles, submandibular gland. External carotid artery: path, cervical branches	**2**
AES1.LP19. Skin innervation of the face. Mimic and maseter muscles. Facial vein and artery. Cranial nerve VII	**2**
Evaluation III. Muscles, vassels and nerves of the neck and face	**2**
AES1.LP20. Maseter muscle. Temporal fossa: temporal muscle, superficial temporal artery and auriculotemporal nerve. Parotid gland. Infratemporal fossa: medial and lateral pterygoid muscles; maxillary artery and mandibular nerve	**2**
AES1.LP21. Pterygopalatine fossa: maxillary nerve. External nose, nasal cavity, nasal sinuses	**2**
AES1.LP22. Oral cavity, tongue, sublingual glands, isthmus faucium. Cranial nerve XII	**2**
AES1.LP23. Pharynx: relations, internal configuration, structure. Parapharyngeal space. Cranial nerve IX. Cervical esophagus	**2**
AES1.LP24. Larynx and cervical trachea: relations, structures, internal configuration, vascularization and innervations. Thyroid gland	**2**
Evaluation IV: Viscera of the neck. Fossa and cavities of the face	**2**
BIBLIOGRAPHY Practical works published on the discipline site Victor Papilian, Anatomia Omului, vol 1, vol 2, Viorel Ranga, Anatomia Omului, vol1, vol2, vol5	

9. CORROBORATING THE DISCIPLINE CONTENT WITH THE EXPECTATIONS OF EPISTEMIC COMMUNITY REPRESENTATIVES, PROFESSIONAL ASSOCIATIONS AND EMPLOYEE REPRESENTATIVES RELATING TO THIS PROGRAM

- Anatomy is a fundamental discipline, mandatory for training of future doctors
- Knowledge, practical skills and attitudes learned in this discipline provides the basis for the study of pathological processes which will be detailed in other disciplines and forms the basis for understanding and learning of any medical act preventive, diagnostic, curative and rehabilitation

10. MHETODOLOGICAL LANDMARKS

Types of activity*	Teaching Techniques / learning materials and resources:
Course	Are used the following combined methods: explanation, lecture, examining conversation, debate, problem solving
Practical work	Are used the following combined methods: Dissection, prossection, observation method, problem solving, heuristic conversation
Individual study	Before each course and each practical work

*In case of special situations (alert states, emergency states, other types of situations that limit the physical presence of the people) the activity can be carried out online using on-line platforms approved by the faculty/university. The online education process will be adapted accordingly to ensure the fulfillment of all the objectives provided in the discipline sheet.

11. RECOVERY PROGRAM

Absences recoveries	**No. absences that can recover**	**Place of deployment**	**Period**	**In charge**	**Scheduling of topics**
	7/sem	Official department location /online*	Last week of the semester Friday 8-14	All teaching staff	Depending on the practical work to be recovered
Schedule consultations / Students' Scientific Circle	4 h/month	Official department location /online*	Friday, 12-13	All teaching staff	The theme of that week
Program for students poorly trained	4 h/month	Official department location /online*	Friday, 13-14	All teaching staff	The theme of that week

12. ASSESMENT

Activity	**Types of assesment**	**Methos of evaluation**	**Percentage from final grade**
Lecture	Formative assesment through essays, projects and surveys during the semester Summative assesment during the exam	Multiple Choice Questions Answering System (MCQ)/MCQ with the help of the IT platform in the online version.	40%
Practical work	Formative assesment through Multiple Choice Questions Answering System (MCQ) or/and descriptive, projects, survey during the semester. Periodic assesment during the semester Summative assesment during the exam	Multiple Choice Questions Answering System (MCQ) simultaneously with the one from the course / with the help of the video platform in the online version.	40%
Periodic assesment			10%
Assesment of individual activity			10%
Minimum performance standard	At least 50% for each component of the evaluation		

13. GUIDANCE AND COUNSELLING PROGRAMS

Professional guidance and counselling programs (2 hours/monthly)

Scheduling the hours	**Place of deployment**	**In charge**
Last Friday of each month	Discipline	All teaching staff

Endorsement date in the department: 20.09.2022

Department Director,
Prof. Ion MÎNDRILĂ

Coordinator of study program,
Prof. Marius Eugen CIUREA

Discipline holder,
Prof. Ion MÎNDRILĂ