# FIŞA DISCIPLINEI- MODUL ENGLEZA

## 1. Date despre program

| | |
|---|---|
| 1.1. | **UNIVERSITATEA DE MEDICINĂ ŞI FARMACIE "CAROL DAVILA"** |
| 1.2. | **FACULTATEA - MEDICINĂ/ DEPARTAMENTUL -** Second Department- MORPHOLOGICAL SCIENCES |
| 1.3. | **DISCIPLINA -** ANATOMY **- ENGLISH TEACHING MODULE** |
| 1.4. | **DOMENIUL DE STUDII -** HEALTH |
| 1.5. | **CICLUL DE STUDII:** GRADUATE STUDIES |
| 1.6. | **PROGRAMUL DE STUDII:** MEDICINE |

## 2. Date despre disciplină

| | |
|---|---|
| **2.1.** | **Denumirea disciplinei :** ANATOMY |
| **2.2.** | **Titularul activităților de curs -** |
| ` | **Titularul activităților de seminar:** |

| **2.4. Anul de studiu** | | **2.5. Semestrul** | | **2.6. Tipul de evaluare** | | **2.7. Regimul disciplinei** | |
|---|---|---|---|---|---|---|---|
| I | | I,II | | Practical and multiple choice examination | | **Fundamental Science** | |
| II | | III,IV | | „ | | **Fundamental Science** | |

**Second year Anatomy(An II)**

## 3. Timpul total estimat (ore/semestru de activitate didactică)

| | | | | | |
|---|---|---|---|---|---|
| **3.1. Nr ore pe săptămână** | **6-sem I 4-sem II** | **From which : 3.2. course** | **2** | **3.3. practical session/ lab** | **4-sem I 2-sem II** |
| **3.4. Total ore din planul de învățământ** | **140** | **From which : 3.5. course** | **56** | **3.5. practical session/ lab** | **84** |
| **Distributia fondului de timp** | 28 weeks | | | | |
| **Studiul după manual, suport de curs, bibliografie și notițe** | | | | | |
| **Documentare suplimentară în bibliotecă, pe platformele electronice de specialitate şi pe teren** | | | | | |
| **Pregătire seminarii / laboratoare, teme, referate, portofoloo și eseuri** | | | | | |
| **Tutoriat** | | | | | |
| **Examinări** | | | | | |
| **Alte activități** | | | | | |
| **3.7. Total ore de studiu individual** | | | | | |

| | | |
|---|---|---|
| **3.9. Total ore pe semestru** | | |
| **3.10. Numărul de credite** | Second Year - 12 credits | |

## 4. Precondiții (acolo unde este cazul)

| | |
|---|---|
| **4.1. de curriculum** | Not applicable |
| **4.2. de competențe** | Not applicable |

## 5. Condiții (acolo unde este cazul)

| | |
|---|---|
| **5.1. de desfășurare a cursului** | Not applicable |
| **5.2. de desfășurare a seminarului / laboratorului** | Not applicable |

## 6. Competențe specifice acumulate

| | |
|---|---|
| **Competențe profesionale (exprimate prin cunoștințe și abilități)** | • Structural and developmental description and recognition of representative human anatomical elements - bones, muscles, vessels, nerves-as guideline for clinical diagnosis<br>• Application of techniques methods and acquired anatomical knowledge, in order to establish the diagnosis, to elaborate the scheme of treatment, to identify the most effective prevention measures for diseases<br>• Elaboration of a research project for a given study subject, with the investigation and description of anatomical structures |
| **Competențe transversale (de rol, de dezvoltare profesională, personale)** | • Identification of objectives wanted to be achieved, of available resources, of their terms of completion, of working steps and time, of their deadline and of the associated risks in various pathologies.<br>• Identification of roles and responsibilities in a multidisciplinary team, applying of techniques for effective work and relationships in the team and in relation to the patient.<br>• Effective use of information sources, of communication resources but also of the professional aided training resources (internet portals, specialized software applications, databases, on-line courses…) both in Romanian and international languages. |

## 7. Obiectivele disciplinei (reieşind din grila competenţelor specifice acumulate)

| | |
|---|---|
| **7.1. Obiectivul general** | - Familiarization with the university studying by means of anatomy, as one of the first medical subjects that is studied. Progressive knowledge of the anatomical composition, by gradual learning of the human body systems. Observance of professional values and ethics. |
| **7.2. Obiective specifice** | Apart from knowledge gaining about each anatomical element, the anatomy aims are to develop the spirit of observation, the capacity of analysis and synthesis, but also to initiate into clinical application of the aquired information. The anatomy is the first medical subject that the students come in contact with and it has an important role in training of a physician/doctor, irrespective of his future medical specialty. |

## 8. Conținuturi

| 8.1. Lectures 2st year, 1st Semester | Metode de predare | Observații |
|---|---|---|
| 1. Serous cavities of the body- Development, peritoneal cavity, omenta, mesenteries, the division of the abdominal cavity, the anatomo-clinical division of the abdominal wall, weak points of the abdominal wall.<br>2. Development of the digestive system. Evolution of the foregut, evolution of the primary intestinal loop, derivatives, physiological hernia. Evolution of the hindgut-derivatives.<br>3. Cloaca and its division. Development of the liver and congenital abnormalities.<br>4. Development of the pancreas, congenital abnormalities.<br>5. Portal vein, visceral and parietal anatomoses between the portal and systemic circulation.<br>6. Development of the urogenital system. Evolution of the pronephros, mesonephros and metanephros. Development of the ureter. Derivatives of the cloaca, development of the kidney. Congenital abnormalities of the urinary system.<br>7. Development of the genital system. Indifferent stage of the gonad. Development of the testis and of the male genital ducts. Development of the male external genitalia. Congenital abnormalities.<br>8. Development of the female genital system. Development of the ovary, of the uterus, of the uterine tube, of the vagina. Development of the female external genitalia. Congenital abnormalities.<br>9. Retroperitoneal space. Topography of the retroperitoneal space. Renal fascia. Major retroperitoneal vessels. Thoracic duct.<br>10. Retroperitoneal autonomic plexuses. Lumbar part of the sympathetic trunk, pelvissubperitoneal space.<br>11. Perineum in male-topography, structure, fasciae<br>12. Perineum in female-topography, structure, fasciae<br>13. Perineal spaces, ischiorectal fossa, superficial perineal space, deep perineal space. pathways)<br>14. Radiology and cross sections. | Courses are taught in lecture halls (amphitheaters) and rooms that are technically equipped for this main purpose -laptop, projector. All lectures are updated, according to the reference books, journals, to books published by members of our discipline, but also to the new data online published- PowerPoint presentations, schemes, drawings. Our discipline has its own library to obtain medical information for useful university studying by means of anatomy. | |
| **8.2. Lectures 2st year, 2nd Semester** | **Metode de predare** | **Observații** |
| 1. Receptors and their structure<br>2. General cutaneous sensory pathways (pain, temperature, touch, pressure and vibration | Courses are taught in lecture halls (amphitheaters) and rooms that are technically equipped | |

| | | |
|---|---|---|
| pathways)<br>3. Proprioceptive pathways<br>4. Visual and gustatory pathways.<br>5. Auditory and vestibular pathways.<br>6. Reticular formation.<br>7. Structure of the cerebellum and its connections.<br>8. Thalamus: nuclei, connections.<br>9. Hypothalamus: nuclei, connections<br>10. Limbic system and its connections.<br>11. Structure of the cerebral cortex<br>12. Pyramidal system<br>13. Extrapyramidal system<br>14. Blood vessels of the encephalon and vascular syndromes. | for this main purpose -laptop, projector. All lectures are updated, according to the reference books, journals, to books published by members of our discipline, but also to the new data online published- PowerPoint presentations, schemes, drawings. Our discipline has its own library to obtain medical information for useful university studying by means of anatomy. | |
| | | |

**Bibliografie**


Gray's Anatomy – for students, by Richard Drake, PhD and all , Elsevier Health

Gray's Anatomy – pentru studenți, Coordonator F.Filipoiu, Editura Elsevier – Prior, București

Atlas de anatomie – nomenclatura latină – Gilroy, Coordonator F.Filipoiu, Editura Prior, Bucuresti

Aparatul digestiv subdiafragmatic şi splina – sub redacția Florin Filipoiu, Editura Universitară "Carol Davila" Bucureşti

Anatomia omului - Aparatul urinar, spatiul retroperitoneal, F. Filipoiu, C. Cristescu, D. Mihalea, Editura Universitara "Carol Davila", București

Anatomie – Pereții trunchiului – Lucrări practice sub redacția G. Lupu, Editura Universitară "Carol Davila" Bucureşti

Anatomia omului – Cap şi Gât – Lucrări practice sub redacția G. Lupu, Editura Universitară "Carol Davila" Bucureşti

Anatomia omului – Aparatul digestiv – Lucrări practice sub redacția G.Lupu, Editura Universitară "Carol Davila" Bucureşti

Anatomie – Membrele sub redacția G. Lupu, Editura Universitară "Carol Davila" Bucureşti

Editura Universitară "Carol Davila" Bucureşti sub redacția Al .T. Ispas Anatomia omului – Aparatul Genital

Anatomia omului – Sistemul Nervos Central – Lucrări practice, sub redacția Al.T.Ispas, Editura Universitară "Carol Davila" Bucureşti

Sistemul nervos și organele de simț - Atlas color – Werner Kahle – Coordonator Prof. Al.T. Ispas, Editura Callisto București

Anatomia funcțională a toracelui - Cezar Th. Niculescu, Bogdan Voiculescu, Romică Cergan, Mihaela Banu, Editura Universitară "Carol Davila" București

Embriologie – Ghid de lucrări practice de microscopie An I – sub redacția Al. T. Ispas, Editura Universitară "Carol Davila" Bucureşti

Embriologie – Ghid de lucrări practice de microscopie An II – sub redacția Al. T. Ispas, Editura Universitară "Carol Davila" Bucureşti


| **8.3. Seminar / laborator** | **Metode de predare** | **Observații** |
|---|---|---|
| **8.3.1. Lectures 2st year, 1st Semester** | **Metode de predare** | **Observații** |
| 1. Abdominal wall: structure, rectus sheath, inguinal canal. Limits of the abdomen anatomo-topographic regions of the abdomen. Surface anatomy of the abdominal wall: muscular relief, grooves, projection of | The main purposes of teaching methods are<br>-recognition, but also structural and developmental description of the studied anatomical structures<br>- understanding and development of skills in clinical using of acquired | |

| | | |
|---|---|---|
| the umbilicus, projection of the superficial and deep inguinal rings, projection of the inferior epigastric vessels, projection of the weak point of the abdominal wall.<br>2. Diaphragm: structure, apertures, blood supply, nerve supply. Surface projection of the diaphragm and its apertures.<br>3. Peritoneum: subdivision. Peritoneal folds-mesenteries, ligaments, omenta. Structure, vessels, nerves. Peritoneal cavity: subdivisions; supracolic and infracolic spaces; paracolic gutters, mesenterico-colic spaces. Vertical and horizontal disposal of the peritoneum. Abdominal esophagus: structure, relations, blood vessels, lymph vessels, nerve supply.<br>4. Stomach: configuration, structure, relations, blood vessels, lymph vessels, nerve supply. Gastric ligaments. Surface anatomy: surface projection of the cardial orifice and of the pylorus, gastric field- gastric projection at the level of the epigastric region, projection of the gastric fundus- space of Traube. Radiological anatomy.<br>5. Omental bursa: study of the omental bursa and its recesses; foramen epiploicum, foramen bursae omentale. Path of access into the omental bursa. Celiac region. Dissection of the celiac trunk and its branches, celiac plexus.<br>6. Duodenum: configuration, structure, relations, blood vessels, lymph vessels, nerve supply. Duodenal recesses. Surface anatomy: surface projection of D1, D2, D3 and of the duodenojejunal flexure on the abdominal wall. Radiological anatomy.<br>7. Pancreas: configuration, structure, relations, blood vessels, lymph vessels, nerve supply. Surface anatomy: surface projection of the pancreas.<br>8. Liver: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Ligaments of the liver. Hepatic segmentation. Surface anatomy: surface projection of the liver – hepatic triangle of Labbe.<br>9. Biliary ducts: configuration, structure, relations, blood vessels, lymph vessels, nerve | anatomical knowledge<br>- development of logical , causal thinking in medical studying…<br>The teaching methods for anatomical study: -dissections of human bodies, presentations on anatomical dissected parts, anatomical preparations, bones, sections; -microscopic examinations of histological sections-human embryos and fetuses- at practical sessions of embryology; radiological anatomy with examination of radiographies; -documentation in our discipline museum, study on cross-sections of human body, study on normal x-rays, CT and MRI | |

| | | |
|---|---|---|
| supply. Surface anatomy: projection of the biliary ducts, cystic point, Chauffard's region. Dissection of the hepatic pedicle. Radiological anatomy.<br>10. Spleen: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Ligaments of the spleen. Segments of the spleen. Surface anatomy: the projection of the spleen.<br>11. Jejunum and ileum: configuration, structure, relations, blood supply, lymph vessels, nerve supply.<br>Mesentery: configuration, relations. Dissection of the superior mesenteric artery and<br>its branches; dissection of the superior mesenteric vein. Surface anatomy: surface projection of the jejunoileal coils, of the ileocecal angle and of the mesentery. Radiological anatomy.<br>12. Caecum and vermiform appendix: configuration, structure, relations, blood supply,<br>lymph vessels, nerve supply. Caecal recesses. Surface anatomy: the surface projection of the caecum and of the appendix, painful points of the appendix. Radiological anatomy.<br>13. Colon: configuration, parts, relations- ascending colon, right colic flexure, transverse<br>colon, left colic flexure, descending colon, sigmoid colon: structure, blood supply, lymph vessels, nerve supply. Dissection of the inferior mesenteric artery and its branches. Transverse mesocolon. Surface anatomy: surface projection of the colic segments and flexures. Radiological anatomy.<br>14. Rectum: structure, relations, blood vessels, lymph vessels, nerve supply. Radiological anatomy.<br>15. Retroperitoneal space: delimitation, content, subdivisions. Kidney: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Renal segmentation. Dissection of the renal pedicle. Surface anatomy: surface projection of the kidney and<br>of the renal pelvis. Radiological anatomy. Suprarenal glands: structure, relations, blood | | |

| | | |
|---|---|---|
| supply, lymph vessels, nerve supply.<br>16. Ureter: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Surface anatomy: surface projection of the ureter, painful points of the ureter. Radiological anatomy.<br>17. Urinary bladder: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Radiological anatomy. Male and female urethra: structure, relations, blood supply, lymph vessels, nerve supply.<br>18. Abdominal aorta: course, relations, branches. Dissection.<br>External iliac artery: course, relations, branches.<br>Internal iliac artery: course, relations, branches. Dissection.<br>Autonomic plexuses in the abdomen and pelvis: superior mesenteric plexus, inferior mesenteric plexus, hypogastric plexuses.<br>Inferior vena cava: origin, course, relations.<br>19. EXAMINATION-infracolic space and retroperitoneal space<br>20. Ovary: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Ligaments of the ovary. Ovarian fossa.<br>Uterine tube: configuration, structure, relations, blood supply, lymph vessels, nerve supply.<br>21. Uterus: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Means of support and suspension. Surface anatomy: the surface projection of the pregnant uterus onto the abdominal wall. External and internal pelvimetry.<br>22. Vagina: structure, relations, blood supply, lymph vessels, nerve supply.<br>External genitalia in female: configuration, structure, relations, blood supply, nerve supply.<br>23. Testis: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Dissection of the scrotum.<br>Spermatic ducts: configuration, structure, relations, blood supply, lymph vessels, nerve supply. Spermatic cord: structure, dissection.<br>Seminal vesicle: structure, relations, blood supply, lymph vessels, nerve supply.<br>24. Prostate: structure, relations, blood supply, lymph vessels, nerve supply. | | |

| | | |
|---|---|---|
| 25. Penis: configuration, structure, blood supply, nerve supply.<br>26. Pelvic diaphragm: muscles, fasciae, vessels, nerves, dissection.<br>Urogenital diaphragm: muscles, fasciae, vessels, nerves.<br>27. Anterior perineum in male<br>Anterior perineum in female<br>Posterior perineum. Pelvis-subperitoneal space: delimitation, subdivision, content.<br>Perineal spaces- superficial perineal space, deep perineal space, ischiorectal fossa.<br>28. EXAMINATION- genital system | | |
| **8.3.2. Lectures 2st year, 2nd Semester** | **Metode de predare** | **Observații** |
| 1. External aspect of the spinal cord. Spinal nerve (structure). Reflex arch. Spinal meninges.<br>2. Gray matter of the spinal cord. White matter (ascending, descending and intersegmental tracts)<br>3. External aspect of the brainstem. Fourth ventricle: walls, communications.<br>4. Nuclei of the cranial nerves (equivalent nuclei of the brainstem)<br>Proper nuclei of the brainstem<br>5. Transverse section through the medulla oblongata, pons and midbrain<br>6. Cerebellum: lobes, structure.<br>Connections: afferent and efferent fibres<br>7. Diencephalon- external aspect. Third ventricle: walls, recesses, and communications.<br>8. Surfaces of the cerebrum: gyri and fissures. Cerebral commissures. Lateral ventricles.<br>9. Basal ganglia. Connections: afferent and efferent fibres. Internal capsule.<br>10. Sagital, horizontal and frontal sections through the cerebral hemispheres.<br>11. Cerebral meninges. Cerebrospinal fluid and its circulation.<br>12. Blood supply of the central nervous system.<br>13. Eyeball and accessory visual apparatus. Visual receptors.<br>**14.** Ear (external, middle, internal ear). Auditory and vestibular receptors | The main purposes of teaching methods are<br>-recognition, but also structural and developmental description of the studied anatomical structures<br>- understanding and development of skills in clinical using of acquired anatomical knowledge<br>- development of logical , causal thinking in medical studying…<br>The teaching methods for anatomical study: -dissections of human bodies, presentations on anatomical dissected parts, anatomical preparations, bones, sections; -microscopic examinations of histological sections-human embryos and fetuses- at practical sessions of embryology; radiological anatomy with examination of radiographies; -documentation in our discipline museum, study on cross-sections of human body, study on normal x-rays, CT and MRI | |
| **Bibliografie**<br>Gray's Anatomy – pentru studenți, Coordonator F.Filipoiu, Editura Elsevier – Prior, București | | |

Atlas de anatomie – nomenclatura latină – Gilroy, Coordonator F.Filipoiu, Editura Prior,Bucuresti
Aparatul digestiv subdiafragmatic şi splina – sub redacţia Florin Filipoiu, Editura Universitară "Carol Davila" Bucureşti
Anatomia omului - Aparatul urinar, spatiul retroperitoneal, F. Filipoiu, C. Cristescu, D. Mihalea, Editura Universitara "Carol Davila", Bucureşti
Anatomie – Pereţii trunchiului – Lucrări practice sub redacţia G. Lupu, Editura Universitară "Carol Davila" Bucureşti
Anatomia omului – Cap şi Gât – Lucrări practice sub redacţia G. Lupu, Editura Universitară "Carol Davila" Bucureşti
Anatomia omului – Aparatul digestiv – Lucrări practice sub redacţia G.Lupu, Editura Universitară "Carol Davila" Bucureşti
Anatomie – Membrele sub redacţia G. Lupu, Editura Universitară "Carol Davila" Bucureşti
Editura Universitară "Carol Davila" Bucureşti sub redacţia Al .T. Ispas Anatomia omului – Aparatul Genital
Anatomia omului – Sistemul Nervos Central – Lucrări practice, sub redacţia Al.T.Ispas, Editura Universitară "Carol Davila" Bucureşti
Sistemul nervos şi organele de simţ - Atlas color – Werner Kahle – Coordonator Prof. Al.T. Ispas, Editura Callisto Bucureşti
Anatomia funcţională a toracelui - Cezar Th. Niculescu, Bogdan Voiculescu, Romică Cergan, Mihaela Banu, Editura Universitară "Carol Davila" Bucureşti
Embriologie – Ghid de lucrări practice de microscopie An I – sub redacţia Al. T. Ispas, Editura Universitară "Carol Davila" Bucureşti
Embriologie – Ghid de lucrări practice de microscopie An II – sub redacţia Al. T. Ispas, Editura Universitară "Carol Davila" Bucureşti

## 9. Coroborarea conţinuturilor disciplinei cu aşteptările reprezentanţilor comunităţii epistemice, asociaţiilor profesionale şi angajatori reprezentativi din domeniul aferent programului

Anatomy professional training of the first- and second-year students aims:
-recognition and identification of anatomical structures related to the need of effective communication with the patient and academic environment
-preparing the future physician/doctor for a proper and good professional communication with the future employer

## 10.Evaluarea

| Tip de activitate | 10.1. Criterii de evaluare | 10.2. Metode de evaluare | 10.3. Pondere din nota finală |
|---|---|---|---|
| | Attendance at practical sessions/labs, at courses/lectures, at dissections on human bodies, presentations on anatomical dissected parts, on preparations, bones, sections and health issues, control tests. | Sem I<br>The student receives a 30 MCQ test divided in 3 groups: I-lectures, II-abdominal organs, III-urinary and genital system. Each group must be passed with a minimum of 5 points each.<br><br>Sem II<br>The student receives a 30 MCQ test divided in 3 | |

| | | | |
|---|---|---|---|
| | | groups: I-Spinal cord and brainstem, II-cerebellum,diencephalon and limbic system,III-encephalon Each group must be passed with a minimum of 5 points each. | |
| | | | |
| **10.1. Curs** | | MCQ Examination | |
| **10.2. Seminar / laborator** | | PRACTICAL EXAMINATION<br>ORAL EXAMINATION | |
| | | | |
| **Standard minim de performanță** | | | |
| Pass mark is 5. Failure of the practical,the student being marked with grade 4. | | | |

**Data completării:**
**11.09.2017**
**……**

**Professor**
**FLORIN FILIPOIU PhD**

**Data avizării în Consiliul Departamentului:**
**12.09.2017**
**……**

**Semnătura directorului de departament**