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### თბილისის ჰუმანიტარული სასწავლო უნივერსიტეტი

**TBILISI HUMANITARIAN TEACHING UNIVERSITY**

**Syllabus**

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| **Name of the course /module** | **Clinical Anatomy, Operative Surgery** |
| **Code of the course** | **PhM0417DM** |
| **Status of the course**  **(elective/compulsory)** | **C**ompulsory course  for the one-cycle higher educational Programme-Dentistry |
| **ECTS** | **4credits.Total:100 hours**  Contact Hours–49hours (Class Meeting Time Period:15L/30Gr.Work.) + 4 hours (Midterm:2h and Final Examinations 2h):  Individual Work -51 hours |
| **Authors (lecturer)** | David Dzhinchveladze - MD,Ph.D, THTU Professor  Tel. 579024545,  e-mail -davidjin@yandex.ru  Consultation days: according to consultation schedule |
| **Aim of the course** | The goal of the course is: to determine a topography and syntopy of human organs; to provide preclinical students with the basic knowledge of anatomy necessary for clinical practice; to provide students with the knowledge of theoretical concepts of Surgery and basic surgical techniques; to teach students principles of operative surgery on different regions of human body |
| **Program prerequisits** | Anatomy-2 |
| **Assessment system and criteria** | **Assessment system of the Tbilisi Humanitarian Teaching University's** is divided into the following components:  The total marks of the mid term Out of the overall assessment (100 points) is 60 points, which includes three kinds of grades:  **Student’s activity during a semester;**  **One-midterm exam;**  **Final exam**-**40 points.**  Theminimum competence requirement for mid termevaluation components is at least 18 points in total.  **The minimum competence requirement of the final evaluation is 50% of the total mark from final evaluation that means 20 points out of 40.**  Evaluation System includes:  I. Five Forms of Positive Assessment:  (A) Excellent – 91% and more from maximum evaluation  (B) Very good – 81-90% from maximum evaluation  (C) Good – 71-80% from maximum evaluation  (D) Satisfactory – 61-70% from maximum evaluation  (E) Sufficient – 51-60% from maximum evaluation  II. Two Forms of Negative Assessment:  (A)(FX) Fail (Not passed ) - 41-50 from maximum evaluation score, which means that the student will need to work more and to retake the test after additional independent work;  (B) (F) Fail – A student gets 40 points, or less from maximum evaluation, which means that the work done by him/her is not sufficient and s/he has to retake the course from the beginning.  1. One of the negative assessment: In case of not passing, the University fixes additional exam at least in 5 days, after the announcement of final examination results, which must be published in the examination table.  2. The grades, which student gets after additional test is a student's final grades, in which is not considered the negative points of the major examination.  If a student receives from 0 to 50 points after additional test, in the final exam sheet is formed (F) -0 for the student. |
| **Course description** | appendix 1 |
| **Assessment system/activities, methods**  **and criteria** | * Activities - 30points * Midterm exam - 30 points   **Activities** (Participation and attendance)- maximal 30 **points** is calculated in accordance *with the level of being active during each* practices(once a week, total number 15) *type of activities can be answering questions, participation in discussion,* participation in everyday testes, identifition anatomical structure - is equal **2 points**.  2,0 points - s/she is active during classes, obtains perfect knowledge of the ongoing topic, answers all questions completely.  1,0 points - s/he is less active during classes, does not present perfect knowledge of the ongoing topic, answers questions partly.  0 - s/he is less active during classes/group works, does not present perfect knowledge of the ongoing topic, does not answer any questions.   * **Midterm exam - 30 points,** administered in written (the computer test, administered in written form (the test), the number of questions– 60, there are given four options, and the best one should be chosen. The correct answer is worth 0.5 points).) * **Final Exam - 40 points**   The examination is conducted by a combination of written(computer test) and verbal exam and includes:   * The computer test - **20 points;**  The number of questions– 40, there are given four options, and thebest one should be chosen.The correct answer is worth 0.5 points. * Verbal task - **20 points** / 4briefbrief topics, each is equal 5points   Criteria of assessment of verbal topics are :  **5 points –** The answer is complete; student obtains perfect knowledge of the topic, s/he coveres of the material fluently, summarises core and additional literature.  **4 points** -The answer is not absolutely complete; student obtains knowledge of the topic, without important mistakes, s/he coveres of the material fluently, summarises core literature.  **3 points -** The answer is not complete; student obtains satisfactory knowledge of the topic, s/he coveres of the material by mistakes, summarises core literature, reveales less of critical thinking and logical analysis.  **2 points** - The answer is weak; student obtains satisfactory knowledge of the topic, makes mistakes, doenot summarises core literature, cant make critical thinking and logical analysis.  **1 points -** The answer is substantially incorrect. Set out in the relevant material of the individual fragments. The student is not able to analyze the material. |
| **Core literature:** | 1. 1.Skandalakis L.J Skandalakis J.E Skandalakis P.N Surgical Anatomy and Techniqu 2. 2.Richard S. Snell Clinical Anatomy for Medical Students fifth Edition. Boston New York Toronto London   3. Frank H Netter Atlas of human Anatomy |
| **Additional literature** | * Kikalishvili L. Turmanidze T. Clinical Anatomy By Regions Chassin’s operative Strategy in General surgery |
| **Learning outcomes, competences**  **(general and field specific)** | **Knowledge**   1. Student describes basic concepts of surgery (operational) along with associated terminology 2. Student determines suitable surgical tactics for particular diseases 3. Student determines different clinical manifestations and symptoms of particular diseases, their evaluation, that is helpful in the process of diagnostics   **Skills**   1. Student evaluates surgical effects of ongoinganatomy-physiological changes in the organism and are aware of possible local and general complications. 2. Student justifies the necessity of particular surgery approach and after analysis of patient’s condition 3. Student makes conclusions concerning the appropriateness of the surgical approach 4. Student considers topographic-anatomical peculiarities of the particular organ and making decision about surgery. 5. Student expresses own ideas concerning the choice of surgical procedures 6. Student advocates and justifies these ideas during discussion with other students. |
| **Teaching methods** | * **Lecture/ practical** * **Individual/Group work** * **Verbal teaching method** * **Demonstration of study materials** * **Presentation** * **Explanation methods** * **Discussion/debate** |

**Appendix 1**

**Course description:**

**Topics of the lecture, practical classes/laboratory work/working group, literature**

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| **Week №** | **Type of**  **the class** | **Topics** | **Contact hours** | **Literature** |
| **I** | Lect. | Introduction. The general questions of topographic anatomy, methods of study. General principles of surgical interventions. The surgical instrumentation and usage rules. | 1h | 1,2 |
| Group working | Task of course. Surgical instrumentations, usage rules. Wound suturing. The general principles and stages of surgical intervention. Classification of surgical operations. | 2h | 1,2 |
| **II** | Lect. | Topographic anatomy of the head. Head division into regions. Cerebral part of head. Surgical operations on head. Trepanation. | 1h | 1,2 |
| Group working | Head division into regions. Topographic anatomy of cerebral part of the head. Fornix and the base of the skull. Cranial meninges and venous sinuses. Epidural, subdural and subarachnoid spaces. Primary surgical treatment of the wound of the scalp. Fractures of the bones. Brain injuries. Intracranial hemorrhage. Types and principles of trepanation. | 2h | 1 |
| **III** | Lect. | Topographic anatomy of the facial part of the head. Main principles of operations on face. | 1h | 1 |
| Group working | Facial part of the head. Lateral region. Topographic anatomy of parotid region. Topographic anatomy of deep region of face. Vein systems of cranial- cerebral and facial departments oh head, their communications. Topographical anatomy of trigeminal nerve, facial nerve. Flegmons of the face. Dissections of inflammatory processes on face. Primary surgical treatment of mandibulofacial wounds. | 2h | 1 |
| **IV** | Lect. | Topographic anatomy of the neck. Triangles of neck. Brachial plexus. Cervical plexus. Operations on neck. Tracheotomy. Strumectomy. | 1h | 1 |
| Group working | Topographic anatomy of the neck. . Triangles of neck. Topographic anatomy of adipose spaces of the neck. Superficial and deep lymphatic nodes of neck. Brachial plexus. Cervical plexus. Thyroid gland, larynx. Primary surgical treatment of wound of the neck. Types and general principles of tracheotomy. Cricothyroidotomy. Strumectomy | 2h | 1 |
| **V** | Lect. | Topographic anatomy and operative surgery of upper limb: shoulder and arm | 1h | 1,3 |
| Group working | Shoulder region, scapular region, infraclavicular region. The axilla, walls and content of axilla. Arm. Anterior and posterior fascial compartments of the arm, muscles, nerve and blood supply. Puncture of shoulder joint. Joint injuries. Fractures. Technique of amputations and exarticulations through the upper extremity. | 2h | 1,3 |
| **VI** | Lect. | Topographic anatomy and operative surgery of the forearm and hand. | 1h | 1,3 |
| Group working | Elbow joint. Cubital fossa. Fascial compartments of forearm. The region of the write. The palm of the hand. Lymph drainage of the palm. Nerves of the palm. Fasial spaces of the palm. Venipuncture, transfusion and cardiac catherization. Injuries of individual nerves. Fractures. Joint injuries. Operations for the phlegmons of palm and forearm. Operations for panaritium | 2h | 1,3 |
| **VII** | Lect. | Topographic anatomy and operative surgery of the thoracic wall and pectoral region. Mastectomy. Operations on the thorax. | 1h | 1,3 |
| Group working | Structures of the thoracic wall. Intercostals spaces. Pleural cavity. Mammary gland. Lymph drainage and carcinoma of the breast. Mastitis and their operative treatment. Diaphragm. Diaphragmatic hernia. Penetrating injuries of diaphragm. Rib resection. Puncture of pleural cavity | 2h | 1,3 |
| **VIII** |  | **Midterm** | 2h |  |
| **IX** | Lect. | Topographic anatomy and operative surgery of the organs of thoracic cavity | 1h | 1 |
| Group working | Thoracic cavity. Mediastinum. Topographic anatomy of lungs, pericardium, heart, large veins, arteries and lymph nodes of thoracic cavity. Principles of operations on lungs \_ wound closure, resection of segment, lobectomia, pulmonectomia. Wound closure of the heart. Surgical anatomy of congenital heart diseases and congenital anomalies of large vessels. Principles of surgical treatment. Endocoronar surgery. Coronary artery bypass grafting. | 2h | 1 |
| **X** | Lect. | Topographic anatomy of abdominal wall. Inguinal canal. Abdominal hernias. Operations on hernias. Laparatomy. | 1h | 1 |
| Group working | Topographic anatomy of anterior abdominal wall. Abdominal quadrants. Inguinal canal. Posterior abdominal wall. Types of hernias. Operations on hernias. Surgical incisions. | 2h | 1 |
| **XI** | Lect. | Topographic anatomy and operative surgeryof organs of peritoneal cavity. General principles of abdominal surgery. | 1h | 1 |
| Group working | Peritoneum. Omentaandmesenteries. Function of peritoneum. Peritoneal cavity. Topographic anatomy of stomach, liver, gal bladder, spleen. Gastrostomy, gastroenterostomy, resection of stomach, intestinal sutures, Meccels diverticulum. | 2h | 1 |
| **XII** | Lect. | Topographic anatomy of the lower extremity. General principles of surgical operations on the tendons, vessels and nerves. | 1h | 1 |
| Group working | Lower limb. The gluteal region, thigh region, knee region. Popliteal fossa. Fascial compartments of the leg. The region of the ankle. The foot. Operations on various veins of lower extremities. Operation access to the arteries of lower extremity. Principles of amputation and disarticulation. Puncture of knee joint. Fractures. | 2h | 1 |
| **XIII** | Lect. | Topographic anatomy of retroperitoneal space and lumbar region. Surgical operations on kidneys. | 1h | 1 |
| Group working | Topographic anatomy of the retroperitoneal space and lumbar region. Kidneys, ureters, suprarenal glands. Surgical operations on kidneys. Surgical approach to the kidney. Nephrectomy. Pyelolythotomy. Surgical approaches to the ureter. | 2h | 1 |
| **XIV** | Lect. | Topographic anatomy of pelvic wall. | 1h | 1 |
| Group working | Topographic anatomy of pelvic walls. Pelvic diaphragm. Pelvic fascia. Pelvic peritoneum. Nerves, arteries and veins of pelvis. Sacral plexus. Sex differences of the pelvis. Fractures of the pelvic bones. | 2h | 1 |
| **XV** | Lect. | Topographic anatomy and operative surgery of pelvic organs. | 1h | 1 |
| Group working | Content of the pelvic cavity. Pelvic viscera in male. Pelvic viscera in female. Hemorrhoids .Epicistectomy. Principles of operations on paraproctitis. | 2h | 1 |
| **XVI** | Lect. | Dorsum and spine. Spinal operations. | 1h | 1 |
| Group working | Vertebral column. Important variations in the vertebrae. Muscles of the back. Blood supply, lymph drainage and nerve supply of the back. Normal curves of vertebral column. Herniated intervertebral discs, dislocations and fractures of the vertebral column. Spinal cord injuries. Operations on vertebra. Lumbar puncture. | 2h | 1 |
| **XVII-XVIII** |  | **Final exam** | 2h |  |
| **XIX-XX** |  | **Additional exam** |  |  |