T.C.

USKUDAR UNIVERSITY

INSTITUTE OF HEALTH SCIENCES

CLINICAL ANATOMY DOCTORATE PROGRAM COURSE CONTENTS

KAN601- Introduction to Clinical Anatomy

Clinical anatomy definition, purpose and clinical importance. General anatomy of organ systems, Thoracic wall, thoracic cavity, Abdominal cavity, anterior, lateral and posterior abdominal walls, Pelvis and perineum, Lower extremity, Upper extremity, Head, Neck and especially clinical anatomical approach in cranial nerves constitute the content of the course.

KAN603- Cadaver Dissection and Microdissection

The basics of anatomy education are cadaver fixation methods, fixation fluid formulas, dissection methods on fixed and fresh cadavers, and dissection methods under the microscope, which will be taught practically.

KAN602- Endocrine System Anatomy and Autonomic System

It includes the subjects of endocrine system organs scattered in the body, their connections with the nervous system, circulatory system, digestive system and genitourinary system and their relation to the autonomic nervous system, as well as the components of the autonomic system in detail, the sympathetic system, truncus sympathicus, sections of the sympathetic system, the parasympathetic system, sections of the parasympathetic system, large plexuses of the autonomic system, CNS sections of the autonomic system and higher centers controlling the autonomic nervous system.

KAN604-Radiological Anatomy

It includes basic radiology knowledge, imaging methods, areas where these imaging methods are best used, normal anatomical features in images obtained with these methods and their comparison with structural features obtained directly with other methods, and the use of all these techniques in anatomical research.

KAN650- Seminar

It includes topics such as research planning, literature review and topic selection, research method, selection of analysis methods and ethical problems, evaluation of research data and discussion of results, issues to be considered when writing an article, and principles to be followed in thesis writing.

KAN605- Head-Neck Anatomy and Clinical Problems

It includes topics such as topographic anatomy of the head and neck, skull, cranium, meninges and circulation, the relationship of meninges with the environment, clinical features of the basis cranii, surgical approach techniques, facial bones, clinical surgical problems in terms of ENT, anatomical problems related to the eye, principles of neck dissection, thyroid surgery, larynx surgery, and neck vertebra problem

KAN607- Research Techniques in Anatomy and Clinical Anatomy

Our students who participate in the program must be good anatomists before becoming clinical anatomists. Therefore, they must be knowledgeable and competent not only in research methods used in anatomy but also in research methods used in the clinic. For this reason, in this course, methods such as direct measurement, plastic injection, corrosion methods, etc., as well as radiological and nuclear medicine imaging methods and clinical examination and measurement methods, and in addition, biostatistics will be among the study topics.

KAN609- Preparation for Proficiency Exam

It includes the examination of the registered program qualifications, definition of scientific preparation activities required for preparation for the doctoral qualification exam, individual study, meeting with an advisor when necessary, and the qualification exam.

KAN606- Clinical Anatomy of Peripheral Nervous System and Sense Organs

The development of the nervous system, nervous tissue, neurons, glia, neurotransmitters, receptors, types of nerve fibers and their conduction velocities, cranial nerves I, II, III, cranial nerves IV, V, VI, cranial nerves VII, VIII, IX, cranial nerves X, XI, XII, spinal nerves, posterior branches of spinal nerves, anterior branches of cervical spinal nerves, anterior branches of thoracic and lumbar spinal nerves, anterior branches of sacral and coccygeal spinal nerves, functions of spinal nerves and cranial nerves, sensory organs where these cranial nerves terminate, gross and microanatomical structures of these sensory organs, microscopic anatomy of nerves, clinical importance and clinical problems that arise in case of their cutting are the subjects that this course focuses on.

KAN608- Central Nervous System Anatomy and Clinical Problems

Nervous tissue; neuron, neuroglia, internal structure of medulla oblongata and pons, internal structure of medulla spinalis, substantia grisea, alba and general information about pathways, afferent and efferent pathways of medulla oblongata and pons, internal structure and pathways of mesencephalon, internal structure and pathways of cerebellum, 4th ventricle, autonomic nervous system, telencephalon, Brodman areas, cortex cerebralis, diencephalon and pathways, olfactory brain, olfactory pathways, limbic pathways, lateral ventricles, CSF circulation, nuclei basales, extra pyramidal system topics are included.

Introduction to the nervous system and its organization, medulla spinalis and ascending-descending pathways, brain stem, connections of the cerebellum, cerebrum, formatio reticularis and limbic system, connections of basal nuclei, cranial nerve nuclei, central connections and distributions, connections of the thalamus, connections of the hypothalamus, autonomic nervous system, brain and medulla spinalis membranes, ventricles, CSF and blood-brain barrier, blood supply of the brain and spinal cord are included.

KAN610- Abdominal and Pelvic Region Anatomy and Clinical Problems

It includes topics such as mouth region, mouth, salivary glands, pharynx and oesophagus, anterior abdominal wall anatomy and inguinal canal, peritoneum, stomach and small intestine, large intestine, autonomic innervation of digestive system organs in abdomen and pelvis, vessels of digestive system organs in abdomen and pelvis, spleen, pancreas, liver, gall bladder and bile ducts, vena porta, posterior abdominal wall, gastrointestinal system clinic. In addition, in this course, development of urinary system which is another abdominopelvic system, kidneys, ureter, bladder, male urethra, female urethra, development of genital system, male external genital organs, male internal genital organs, female external genital organs, female internal genital organs, vessels of pelvic region, nerves of pelvic region, urogenital system diseases will be examined.

ELECTIVE COURSES

KAN611- Anatomical Orthopedic Diseases

It includes topics such as functional anatomy and injuries of the shoulder joint, functional anatomy and injuries of the elbow joint, functional anatomy and injuries of the hand and wrist joints, functional anatomy and injuries of the hip joint, functional anatomy and injuries of the knee joint, functional anatomy and injuries of the foot and ankle joints, functional anatomy and injuries of the cervical and thoracic regions, functional anatomy and injuries of the lumbar region.

KAN612- Pathophysiology

Nervous system physiopathology, pain, temperature regulation, sleep and sensory functions, nervous system physiopathology, changes in cognitive systems, cerebral hemodynamics and motor functions, nervous system physiopathology, central and peripheral nervous system and neuromuscular junction disorders, nervous system physiopathology, schizophrenia, mood disorders and anxiety disorders, anemias and hematopoietic system physiopathology, erythrocyte, leukocyte, lymphoid and hemostatic dysfunctions, immune system physiopathology, immunity and inflammation disorders, cancer biology, cardiovascular system physiopathology, cardiovascular system physiopathology, respiratory system physiopathology, gastrointestinal system physiopathology, metabolism and endocrine system physiopathology, urinary system physiopathology.

KAN613- Functional Neuroanatomy

The functional organization of nerve cells, neurochemical transmission in the central nervous system, neurotransmitters and neuromodulators, synaptic transmission, neuromediators and neurotrophic factors, neurotransmitters and their receptors-I of the central nervous system (amino acids, GABA and their receptors, Glysine and their receptors), neurotransmitters and their receptors-II of the central nervous system (Glutamate, Aspartate and their receptors), neurotransmitters and their receptors-III of the central nervous system (Acetylcholine (Ach), dopamine and their receptors), neurotransmitters and their receptors-IV of the central nervous system (5-hydroxytryptamine (5-HT) histamine and its receptors), introduction to central nervous system diseases, motor diseases, behavioral disorders, neurodegenerative diseases, clinical evaluations, presentations and general evaluations are included in the topics.

KAN614- Neuroanatomy Research Techniques

Histochemical and advanced microscopic techniques, their application areas, and their use in research will be taught practically.

KAN615- Gynecological Anatomy and Surgery

The bones forming the pelvic skeleton, the diameters of the pelvis, the position of the pelvic skeleton, anatomical differences between the female and male pelvis, the joints and ligaments of the pelvis, the balance and movement mechanism of the pelvis, the pelvic axis and segments, the pelvic floor, the functions of the pelvis and perineum, the pelvic fascia, the pelvic floor muscles, the topographic relationship of the organs, vessels and nerves in the pelvis, the pudendal plexus, important ligaments and anatomical structures in pelvic reconstructive surgery, important retroperitoneal spaces in gynecological surgical procedures, lower abdominal wall anatomy, abdominal incisions, the anatomical basis of various surgical operations, and surgical operations are included in the topics.

KAN616- Lymphatic System Anatomy

Introduction to the lymphatic system, lymph trunks, thoracic duct, head and neck lymph nodes, upper extremity lymph nodes, thoracic wall and thoracic organ lymph nodes, abdominal region lymph nodes, pelvic region lymph nodes, lower extremity lymph nodes, thymus, lymphatic metastases, spreading routes, and lymphatic system diseases are included.

KAN617- Functional Anatomy

Central nervous system anatomy, Central nervous system physiology, Central nervous system histology and embryology, Respiratory system anatomy, Respiratory system physiology, Respiratory system histology and embryology, Digestive system anatomy, Digestive system physiology, Digestive system histology and embryology, Cardiovascular system anatomy, Cardiovascular system physiology, Cardiovascular system histology and embryology, Urogenital system anatomy and physiology, Urogenital system histology and embryology are included in the topics.

KAN618- Biomedical and Clinical Anatomy

Developments in biomedical engineering, basic applications, imaging techniques, robotics, robot limbs and human applications, prostheses and adaptation problems, modeling, R&D areas are included in this course.

KAN619- Flepler

In this course, to be held with faculty members of plastic and reconstructive surgery, flap types, history, currently used flaps, areas of use, possible flaps, and the determination and development of the surgical and anatomical infrastructure necessary for a structure to be used as a flap will be examined.

KAN620- Positive Psychology and Communication Skills

Basic concepts that form the general framework of communication sciences, solutions and suggestions for strengthening communication skills, topics such as interpersonal communication, group communication, organizational communication, mass communication, public communication, international communication and intercultural communication.

KAN621- Entrepreneurship and Project Culture

In cooperation with Üsküdar University, GOSB Teknopark and GOSB Teknopark companies
Marketing in entrepreneurship, human resources in entrepreneurship, financial management in entrepreneurship, production management in entrepreneurship, technology management in entrepreneurship, entrepreneurship and brand, patent law, R&D and innovation issues in entrepreneurship of technopark companies

KAN622-Complementary Medicine Applications

Conceptual overview of complementary and alternative treatment methods, historical development of complementary and alternative treatment methods, use of complementary and alternative treatment methods, mind-body methods, music therapy, massage, acupressure, acupuncture, therapeutic touch, reiki and reflexology concepts

KAN623- Humanities in Medicine

The process of differentiation of medical science according to time and society; objective and subjective perceptions in the field of health; cognitive, intuitive and emotional factors in the perception of health; the relationships between medicine and artistic fields; the influence of art on physicians and health professionals.