Syllabus of the training module at the university level

Name of the Faculty	School of Medicine in English UJ CM
Name of the unit responsible for training	Department of Anatomy UJ CM
Name of the module	Human Anatomy with Embryology
Module Code	
Language of training	English
Training effects for the module	The aim of the module is: - to familiarize students with the construction of the human body in terms of topography, functional and clinical approach - to familiarize students with the construction of the human body at the imaging scan - to acquaint students with the development of the human in terms of clinical aspects - raise awareness of the need for students systematic knowledge in this issue After completing the course the student: <u>In terms of knowledge:</u> - use the anatomical and embryological nomenclatures in Polish and in English - describes the structure of the human body in terms of topographic - explains the structure of the human body in terms of functional - knows the stages of human development, construction and operation of membranes fetal and placenta, and the development of individual organs and parts of the body. <u>In terms of skills:</u> - use in spoken and in written anatomical and embryological nomenclatures in Polish and in English - recognize anatomical structures on cadavers - explains the anatomical basis for the covered study - recognize anatomical structures in images diagnostic (X-ray, CT, MRI, ultrasound) - conclude about the relationship between the structures based on the anatomical intravital diagnostic tests - explains the embryological basis for most malformations occurring - have a respect for the corpse
Type of module (mandatory / facultative)	mandatory
Year of studies	1-6
Semester	1
Name of the person / persons leading the module	Prof. Jerzy Walocha
Name of the person/persons examining or granting a credit if it is not a person conducting this module	ditto
Realization	Lectures and exercises
Prerequisites and additional needs	
Type and number of hours of classes that require direct participation of the academic teacher and students when such activities are provided for such module	Lectures, 60 h Exercises, 120 h
Number of ECTS	13
Balance of ECTS	Participation in the lectures -60 h Participation in the exercises - 120 h Preparation for classes - 180 h Preparation for tests and examinations - 100 h Total 460 hours of students' work
Didactic methods applied	Practices at the dissection room Lectures: - analyzing the building blocks of the human body which are beyond the scope of the dissection demonstration - about the clinical aspects of human anatomy

	- issues of human development
Methods for testing and evaluation criteria of learning outcomes achieved by students	Theoretical colloquium - test Practical colloquium - identify selected details on the body and X-ray images, CT, MRI, ultrasound
The form and the conditions for completion of the module, including the rules of admission to the exam, and the form and conditions for completion of the various activities within the scope of the module	Assessment. Assessment of the module is subject to the following conditions: 1. attendance (not scored) 2. practical colloquiums (0 - 80 points) 3. theoretical colloquiums (0 - 200 points) 4. activity during classes (0-20 points) Student's Evaluation: -credit requirements: The whole material of the course has been divided into four parts including : - general anatomy (incl. osteology and arthrology), skull; - head and neck; central nervous system - thorax, upper limb - abdomen and pelvis; lower limb CAUTION : During the course of anatomy, the student is supposed to have the knowledge acquired from all previous practical and theoretical classes. Much of the course work is carried out in the dissection rooms. Student will need to provide and bring a clean white lab coat to the dissection room, with name on the front where it can be read by staff, and wear it always in the dissection room. Unauthorized persons are not allowed to enter the dissection rooms. Four mid-semestral tests will take place according the following schedule (as seen above). The tests will consist of two parts : a). the laboratory part (identification of parts of organs) – 15 questions (for each correct answer one can receive maximally 1 point). There is 30 seconds per each specimen for its recognition during a mid-semestral test or 1 minute during the final exam. Passing the laboratory part is NOT a prerequisite for participation in the second part of the mid-semestral test. b). the theoretical part (multiple choice test, matching, etc.): 35 questions each test. For each correct answer you receive 1 point. The list of specimens placed in the end of syllabus is a supplementary list only (it is only a help for the Students), so both during the mid-semestral and final practical exams, specimens can be used out of the list. It is not possible to postpone the mid-semestral test. Participation in classes (NOT in the lectures per two semesters are allowed. STUDENT WHO EXCEEDS THE ALLOWED NUMBER OF SIX ABSENCES FAILS TO GET THE CREDIT AND MUST REPEAT THE COURSE IN THE FOLLOWING YEAR. Only students who received 100 points (50%) of all midsemestral tests get the credit and are allowed to take the final exam. -attendance requirements: six absences per academic year are allowed -type of the final exam: The final exam, held in January/February, is the ultimate basis for the completion of the course. Only students who have not exceeded the allowed number of absences and have received 100 points (50%) of all tests are allowed to take the final exam. Evaluation of the anatomy course is based on the results of the final exam, however we consider also the results of the mid-semestral tests. The final exam, covering the whole material of the course consists of two parts : The laboratory part : identification of specific structures shown on cadavers; their parts; separate organs or bones (20 questions : bones (3), skull (1), upper & lower limb (4), thorax (2), abdomen & pelvis (3), head & neck (3), central nervous system (4). Passing the laboratory part is NOT a prerequisite for participation in the second part of the final exam !!! This rule is valid for the make-up exam, as well. The theoretical part : (multiple choice test, matching, etc - similar form to the mid semestral tests). Questions may also include problems based on histology and embryology. The test consists of 100 questions which cover the whole theoretical material Grading system, both for the mid-semestral tests, practical exams and the final exam is as follows: excellent = approximately 90% of all available points; very good = 80%; good = 70%, satisfactory = 60%; sufficient = 50%. A Student is exempted from the final practical exam if results of all PRACTICAL mid-semestral tests exceed 80%. The final grade consists of: number of points received during final practical + number of points received during final test and a bonus points (1 point for each next 10 points above 200 points) received during the mid-semestral tests, i.e. a Student A received 218 points during all six mid-semestral tests, later on the final

	practical exam he (she) received 28 points out of 40 and on the final test 68 points out of 100. His (hers) final grade is: 2 (18 points above 200) + 28 + 65 = 95 points (63,3%) = + satisfactory -retake information: The make-up exam (held in February) has a form of both practical exam and test. The test consists of 60 questions (multiple choice and matchings). Students who passed practical exam in May DO NOT have to repeat it in September.
Training module content	**Osteology** Lecture - Biological processes occurring in the cell in embryogenesis: differentiation, cell division, apoptosis, intercellular interaction, gene expression - Spine and chest - Upper limb of the ring Lecture - General bones construction. Types of bones conjugation. Lecture - gametogenesis. Fertilization. Early development of the human embryo: Cleavage, implantation, gastrulation. Differentiation of germ layer. Pelvis and lower limb. Neurocranium Lecture - The pelvis as a whole. Joints of the lower limb. Lecture - The development of bones and skulls. Viscerocranium. **CENTRAL NERVOUS SYSTEM. HEAD, NECK.** Lecture - extra-embryonic tissues of man: trophoblast differentiation, development of chorion, amnion, allantois. The formation, structure and functions of the placenta ABC of nervous system. Spinal cord: structure, vascularization, cerebral leptomeninx. Structure of brain exterior. Vascularization of brain. Lecture - The internal structure of the brain Lecture - The development of the nervous system Lecture – Sensory tract Lecture - Tract: visual, auditory, olfactory and flavor. Movement tract. Cell system. endocranitis. Circulation of cerebrospinal fluid. Neck. Lecture - Organ of sight Lecture - Development of the head and neck. Face area - superficial and deep. Mouth, nose, throat and larynx. Lecture - Organ of hearing Lecture - Cranial nerves. **CHEST. The upper limb.** Lecture - Genetics of development. Mechanisms regulating development. Chest walls. Division of mediastinum. Lungs. Heart. Lecture - Conducting system of heart. Vasculature of heart. Nervous system of chest. Lecture - Development of heart. Superficial muscles of the chest and shoulder girdle. Axillary cavity. Arm and forearm front group. Lecture - The topography of heart, lungs and pleura. Mechanics of breathing. The lymphatic system of the chest. Lecture - The development of blood vessels and respiratory tract. Landmarks rear and side of the forearm. Hand. The nervous system of the upper limb. Lecture - Recent embryological developments: cloning, stem cells, neo-oogenesis, mosaicism development. **Abdomen, pelvis, lower limb** Abdominal walls. The bottom of the pelvic cavity. Peritoneum. Stomach, small and large intestines. Lecture-The autonomic nervous system of abdomen and pelvis Lecture - The development of digestive system Liver, pancreas, spleen. Portal circulation. Reins, adrenal, ureters, urinary bladder. Male and female reproductive axis Lecture – Male and female reproductive axis. Lecture - Development of urinary and female reproductive axis. Buttock, thigh. Lower leg, foot Lecture - The development of male reproductive axis. The formation of the inguinal canal. Congenital inguinal hernias. Lecture - Assessment of fetal age. Date of birth. Infertility. ART. CVS. IUGR.
Basic and supplementary bibliography to complete the module	**see booklist**
Amount of hours, principles and form of apprenticeship, when the training program provides practice	