

Course Title:	Anatomy with embryology and basic genetics
Course Director:	Prof. dr hab. Jerzy Walocha
Coordinator /contact:	Dr n.med. Małgorzata Mazur\ malg.mazur@uj.edu.pl
Responsible person/contact:	Dr n.med. Małgorzata Mazur\ malg.mazur@uj.edu.pl
Address:	Chair of Anatomy, Kopernika 12 street
Year:	1-DDS
Total number of hours:	214
Lectures:	65
Seminars:	
Labs/Practicals:	149
Others (e.g. recitation):	Obligatory readings
Exams:	5
Conduct/Dress Code:	White lab coat and one-time gloves

Student's Evaluation:

-credit requirements:

Several mid-semester tests will take place following the syllabus

The tests will consist of two parts:

- a) The laboratory part (identification of parts of organs) – **20 questions** (you can receive maximally 2 points for each well recognized specimen). There is 30 seconds per each specimen for its recognition during a mid-semester test and during the final exam. IN PERSON (in dissection rooms).

Passing the laboratory part **is NOT a prerequisite** for participation in the second part of the mid-semester test. 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-semester and final practical exams, some extra specimens (out of the list) can be used.

- b) The theoretical part (TEST: multiple choice, matching, etc.) - **60 questions** (1 point for each correct answer). The test lasts 90 minutes. Question will be based on lectures, labs and a few from obligatory readings. Each student will receive confidential code number. ONLINE

Results of the test are available on the web-page of the Chair of Anatomy (www.katedra-anatomii.cm-uj.krakow.pl) → STUDENCI → dentistry

Only Students who have received at least **50%** from all mid-semester tests (**average**, including both theoretical and practical, counted together) are allowed to take the final anatomy exam (both practical exam and the test).

A Student can be exempted from the final anatomy exam if the results of all mid-semester tests (**including both practical and theoretical tests**) AVERAGE-exceed **90%**.

A Student is exempted from the final practical exam if results of **all practical mid-semester tests** exceed **80%** (average).

To pass the final exam one should receive at least 50% on practical final and 50% on theoretical final, separately.

The final grade consists of : the value of points received during final practical + value of points received during final test and points received during the mid-semester tests above 60% points, (for each 10 points above 60%, a student gets 1 point extra) Student who does NOT receive credit must take credit test in September. The material of the test covers the whole material. After passing the test student is allowed to take both practical and theoretical exams

-attendance requirements: labs are **obligatory**, lectures not
All excused absences on the labs must be passed. Student who have been absent must answer 10 practical questions regarding material discussed on the following lab.

- type of the final exam: The final exam, held in June, is **the ultimate basis for the completion of the course. Evaluation of the anatomy & embryology course is based on the results of the final exam, however we consider also the results of the mid-semester tests.**
The final exam, covering the whole material of the course consists of two parts:
 - a) **The laboratory part** : identification of specific structures shown on cadavers or radiograms (head and neck); their parts; separate organs or bones. (30 questions – 2 : bones; 6 : skull; 2 : upper & lower limb; 2 : thorax; 2 : abdomen & pelvis; 12 : head & neck; 4 – central nervous system). IN PERSON (in dissection rooms).
Passing the laboratory part is NOT a prerequisite for participation in the second part of the final exam .
 - b) **The theoretical part** (multiple choice test, matching, etc.)
The test consists of 100 questions which cover the whole material of the course and include also embryology problems (80% of questions is based on the material on Head, neck, skull and central nervous system).
- retake information: **The make-up exam** has the same form but the test consists of 60 questions (multiple choice and matching)(September2024)

Teachers: Prof. dr hab. Jerzy Walocha, Dr Małgorzata Mazur, Dr Marcin Lipski

	Day	Time	Type of classes	NO of hours	Group	Topic	teacher	Place
Week 1								
October 2-6	Monday	9.45 - 11.15	Lab.	2	I, II	Vertebral column – General characteristics of a vertebra. Cervical, thoracic, lumbar vertebrae. Sacrum, coccyx. Intervertebral disc. Joints of vertebral column. Atlanto- occipital joints. Atlanto- axial joints. Curves of vertebral column.	Prof. Jerzy Walocha, MD, Ph.D/ Dr	Dissection room 1,3
							Małgorzata Mazur, MD,PhD	
		12.15 - 13.45	Lec.	2	Whole class	Basic Anatomy. Descriptive Anatomical Terms: Terms Related to Position and Movement. Connective Tissue: general structure of the bone, Biological & mechanical properties of bones. Classification of bones. Joints: fibrous, cartilaginous & synovial joints.	Prof. Jerzy Walocha, MD, Ph.D	E-learning MS team DDS 23\24
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Ribs. Sternum. The thoracic cage. Bones of the shoulder girdle: scapula, clavicle. Acromioclavicular, sternoclavicular joint.	Prof. Jerzy Walocha, MD, Ph.D\ Dr	Dissection room 1, 3
						Małgorzata Mazur, MD,PhD		
Week 2								
October 9-13	Monday	9.45 - 11.15	Lab.	2	I, II	Humerus. Shoulder joint. Radius. Ulna. Bones of the hand. Elbow joint. Wrist joint. The carpal tunnel. The hand as a functional unit.	Prof. Jerzy Walocha, MD, Ph.D/ Dr	Dissection room 1, 3
							Małgorzata Mazur, MD,PhD	
		12.15 - 13.45	Lec.	2	Whole class	Vascular system: Heart. Blood vessels. Lymphatic system. Muscles and Structures The bony pelvis. Hip bone. Sacroiliac joints. Symphysis pubis. Greater & lesser sciatic foramina. Inguinal ligament. Sex differences of the pelvis. Femur. Hip joint. Acetabulum. Tibia. Fibula. Patella. Knee	Prof. Jerzy Walocha, MD, Ph.D	E-learning

						joint. (intra- & extracapsular ligaments) Menisci. Bones of the foot. Ankle joint. Associated with Muscles.		
	Wednesday	10.00 - 11.30	Lab.	2	I, II		As above	Dissection room 1, 3
		11.30 - 13.00	Lab.	2	Whole class	Practical review	Dr Małgorzata Mazur	Dissection room 1, 3
week 3								
October 16-20	Monday	9.45 - 11.15	Lab.	2	I, II	Bones of the Neurocranium. Frontal Bone. Occipital Bone. Sphenoid bone.	Prof. Jerzy Walocha, MD, Ph.D/ Dr Małgorzata Mazur, MD, PhD	Dissection room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Divisions of the skull. Development of the skull.	Prof. Jerzy Walocha, MD, Ph.D	
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Ethmoid Bone. Parietal Bone. Temporal Bone. Review of the specimens	As above	Dissection room 1, 3
		11.30 - 13.00	Lab.	2	Whole class	Practical review	Dr Małgorzata Mazur	Dissection room 1, 3
week 4								
October 23-27 (Extra Lecture Asynchronous on MS team)	Monday	9.45 - 11.15	Lab.	2	I, II	Bones of the Visceral Cranium. Mandible. Hyoid Bone. Maxilla. Palatine Bone. Inferior Nasal Concha. Lacrimal Bone. Vomer. Zygomatic Bone. Zygomatic and mandible fractures.	As above	Dissection room 1, 3
		12.15 - 13.45	Lec.		Whole class	The Ear: External Ear. Middle Ear (Tympanic Cavity). Inner Ear (Osseous Labyrinth).	Prof. Jerzy Walocha, MD, Ph.D	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Orbital Cavity. Nasal Cavity. Oral Cavity. Limitation and and communication.	As above	Dissection room 1, 3
		11.30 - 13.00	Lab.	2	Whole class	Practical review	Dr Małgorzata Mazur	Dissection room 1, 3
Week 5								
October	Monday	10.00 - 11.30	Lab.	2	I, II	Anterior, middle and posterior cranial	As above	Dissection

30 th						fossae - summary		room 1, 3
November 1 st – day off (All Saints day)								
week 6								
November 6-10	Monday	9.45 - 11.15	Lab.	2	I, II	Temporal, infratemporal, retromandibular and pterygopalatine fossae - summary	As above	Dissection room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Openings in the skull - contents. Pterygopalatine fossa - limitation, communication.	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Practical review	As above	Room 1, 3
		11.30 - 13.00	Lab.	2	Whole class	Practical review	Dr Małgorzata Mazur	Room 1, 3
week 7								
November 13-17	Monday	9.45-11.15	Lab.	2	I, II	Practical review	As above	Room 1, 3
		12.15-13.45	Lec.	2	Whole class	Test 1 – osteology, skull and basic anatomy(60 Questions)	Prof. Jerzy Walocha	online
	Wednesday	10.00-11.30	Lab.	2	I, II	Practical exam on osteology and skull-20 details.	As above	Room 1-5
week 8								
November 20-24	Monday	9.45 - 11.15	Lab.	2	I, II	Spinal cord, brainstem, medulla oblongata, midbrain.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Introduction into the anatomy of the Nervous system.Divisions of the nervous system. Neurons.Central, peripheral and autonomic nervous system.	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Exit of the cranial nerves from brain. Brainstem and its relation with the cerebellum, Cerebellum. Interbrain. 3 rd and 4 th ventricles.	As above	Room 1, 3
		11.30 -13.00	Lab.	2	Whole class	Practical review	Dr Małgorzata Mazur	Room1, 3
week 9								
November	Monday	9.45 - 11.15	Lab.	2	I, II	Telencephalon(hemisphere). Brodman areas. Blood supply of the brain	As above	Room 1, 3

27 - December 1		12.15 - 13.45	Lec.	2	Whole class	Motor neuronal tracts	Prof. Jerzy Walocha	E-learning
	Wednesday	10:00 - 11:30	Lab.	2	I, II	Practical review	As above Dr	Room 1, 3
		11.30 - 13.00	Lab.	2	Whole class	Practical review	Małgorzata Mazur	Room 1, 3
Week 10								
December 4-8	Monday	9.45 - 11.15	Lab.	2	I, II	Practical review.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Sensory neuronal tracts	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Practical review	As above	Room 1, 3
		11.30 - 13.00	Lab.	2	Whole class	Practical review	Dr Małgorzata Mazur	Room 1, 3
week 11								
December 11-15	Monday	9.45-11.15	Lab.	2	I, II	Practical review	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Test 2 on central nervous system- 60 questions	Prof. Jerzy Walocha	online
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Practical exam on CNS- 20 questions.	As above	Room 1-5
week 12								
December 18-22	Monday	9.45 - 11.15	Lab.	2	I, II	Muscles of the neck and nuchal region. Cervical plexus	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Head and neck development.	Dr Małgorzata Mazur	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I,II	Surface anatomy of the neck. Triangles of the neck. Thyroid gland. Parathyroid glands.	As above	Room 1, 3
23.12.2023-7.01.2024 CHRISTMAS BREAK								
week 13								
January 8-12 (Extra Lecture Asynchronous on MS	Monday	9.45 - 11.15	Lab.	2	I, II	Vagus nerve, accessory nerve, hypoglossal nerve and sympathetic trunk(cervical part) detachment.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	The Orbit & its walls. Structure of the Eyeball. Nerve & blood supply of the eyeball. Ciliary ganglion. The accessory organs of the eyeball (muscles, eyelids,	Prof. Jerzy Walocha	E-learning

Team)						lacrimal apparatus). Optic nerve. Oculomotor nerve. Trochlear nerve. Abducent nerve. Clinical notes : Horner's syndrome. Crocodile tears syndrome. Glaucoma. Cataract. Retinal		
	Wednesday	10.00 - 11.30	Lab.	2	I,II	External & internal carotid arteries. External & internal jugular veins. Eyeball practically.	As above	Room 1, 3
week 14								
January 15-19 (extra Lec. asynchron- ous on MS team)	Monday	9.45 - 11.15	Lab.	2	I, II	Pharynx, parapharyngeal space, glossopharyngeal nerve, tonsils	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	The Ear (external, middle & internal). Vestibulocochlear nerve. Temporomandibular joint. Clinical notes : Hyperacusis. Otosclerosis. Conductive deafness. Otitis media. Meniere's disease (labyrinthine hydrops).	Prof . Jerzy Walocha	e- learning
	Wednesday	10.00 - 11.30	Lab.	2	I,II	Larynx- structure, blood and nerve supply, lymph drainage. Auricle features.	As above	Room 1, 3
		11.30 - 13.00	Lab.	2	whole class	Practical review	Dr M. Mazur	Room 1, 3
Week 15								
January 22-26	Monday	9.45 - 11.15	Lab.	2	I, II	Practical review	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Test 3 on neck, ear and eye - 60 questions	Prof. Jerzy Walocha	online
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Practical exam on neck, ear and eye- 20 questions.	As above	Room 1-5
29.01.2024-23.02 .2024 EXAMS AND WINTER BREAK								
week 16								
February 26th - March 1 (extra lec. Asynchron- ous on	Monday	9.45 - 11.15	Lab.	2	I, II	Blood and nerve supply of the face. Facial artery and nerve. Muscles of the facial expression. Parotid gland.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Development of face.	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Dura mater venous sinuses. Venous drainage of the head. Blood & nerve	As above	Room 1, 3

MS team)						supply of the meninges.		
week 17								
March 4-8	Monday	9.45 - 11.15	Lab.	2	I, II	Oral cavity. Teeth. Gingiva. The tongue	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Development of the teeth	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Maxillary artery. Maxillary nerve.	As above	Room 1, 3
	Friday	12.30 - 14.00	Lab.	2	whole	Practical review	Prof. Jerzy Walocha	Room 1, 3
Week 18								
March 11-15 (extra lec. Asynchronous on MS team)	Monday	9.45 - 11.15	Lab.	2	I, II	Mandibular division of trigeminal nerve. Muscles of mastication.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Communication of the pterygopalatine and infratemporal fossa (clinical correlation)	Prof Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Pterygopalatine, infratemporal and retromandibular fossae.	As above	Room 1, 3
Week 19								
March 18-22 (extra lec. Asynchronous on MS team)	Monday	9.45 - 11.15	Lab.	2	I, II	Nasal cavity- walls, nerve & blood supply. Paranasal sinuses-practically	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Nasal cavity- walls, nerve & blood supply. Paranasal sinuses-theoretically	Prof. Jerzy Walocha	online
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Practical review	As above	Room 1, 3
	Friday	12.30 - 14.00	lab	2	all	Practical review	Prof. Jerzy Walocha	Room 1, 3
EASTER BREAK 27.03.2024 - 02.04.2024								
Week 20								
March 25 - April 3	Monday	9.45 - 11.15	Lab.	2	I, II	Practical review	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Test 4 – on head(60 questions)	Prof. Jerzy Walocha	online
	Wednesday	10.00 - 11.30	Lab.	2	I,II	Practical exam on head- 20 questions.	As above	Room 1-5
Week 21								
April	Monday	9.45 - 11.15	Lab.	2	I, II	Thoracic walls- muscles, vessels , nerves. The diaphragm. Mediastinum.	As above	Room 1, 3

8-12		12.15 - 13.45	Lec.	2	Whole class	Pericardium. Conducting system of the heart. Arterial supply and venous drainage of the heart.	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Lungs and heart	As above	Room 1, 3
Week 22								
April 15-19	Monday	9.45 - 11.15	Lab.	2	I, II	Large vessels of the thorax: SVC, IVC, Aorta, pulmonary trunk, Pulmonary veins.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Nerves of upper limb	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Azygos veins. Vagus & phrenic nerves. Thoracic part of ST.	As above	Room 1, 3
Week 23								
April 22-26	Monday	9.45 - 11.15	Lab.	2	I, II	Muscles of the shoulder girdle and arm.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Vascular system of upper limb	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Muscles of forearm and hand	As above	Room 1, 3
May break 29.04.24-3.05.24								
Week 24								
May 6-10	Monday	9.45 -11.15	Lab.	2	I, II	Nerves of upper limb .	As above	Room 1, 3
	Wednesday	10.00- 11.30	Lab.	2	I, II	Arterial and venous blood supply of upper limb.	As above	Room 1,3
	Friday	12.30 - 14.45	Lab.	3	Whole class	Practical review	Prof. Jerzy Walocha	Room 1, 3
Week 25								
May 13-17	Monday	9.45 - 11.15	Lab.	2	I, II	Walls of abdomen and pelvis.Peritoneum.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Vascular system of abdomen and pelvis Portal circulation.	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Gastrointestinal tract- esophagus, stomach, small and large intestine. Liver.Gallbladder.	As above	Room 1, 3
Week 26								
May	Monday	9.45 - 11.15	Lab.	2	I, II	Retroperitoneal space, kidneys, suprarenal glans, ureters, abdominal	As above	Room 1, 3

20-24						aorta, IVC.		
		12.15 - 13.45	Lec.	2	Whole class	Abdominal cavity- mini quiz	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Rectum. Urinary bladder. Urinary tract	As above	Room 1, 3
	Friday	12.30 - 14.00	Lab.	2	Whole class	Practical review	Prof. Jerzy Walocha	Room 1, 3
Week 27								
May 27-29	Monday	9.45 - 11.15	Lab.	2	I, II	Male and female genital organs. Nerves of the lower limb – clinical correlation	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class		Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Muscles of the lower limb.	As above	Room 1, 3
30-31.05.24 – Day off, Corpus christi								
week 28								
June 3-7	Monday	9.45 - 11.15	Lab.	2	I, II	Nerves of the lower limb.	As above	Room 1, 3
		12.15 - 13.45	Lec.	2	Whole class	Arteries of the lower limb –clinical correlations. Superficial veins and lymphatic drainage of the upper limb – clinical correlations.	Prof. Jerzy Walocha	E-learning
	Wednesday	10.00 - 11.30	Lab.	2	I, II	Vessels of the lower limb.	As above	Room 1, 3
	Friday	12:30 - 14.45	Lab.	3	Whole class	Practical review	Prof. J. Walocha	Room 1, 3
Week 29								
June 10-14	Monday	9.45-11.15	Lab.	2	I, II	Practical review	As above	Room 1 ,3
		12.15-13.45	Lec.	2	Whole class	Test 5 (thorax, upper limb, abdomen, pelvis, lower limb) –60 questions	Prof. Jerzy Walocha	online
	Wednesday	10.00-11.30	Lab.	2	I, II	Practical exam on thorax, upper limb, abdomen, pelvis, lower limb –20 specimens	As above	Room 1-5
week 30								
June 17-21	Monday	9.45-11.15	Lab.	2	I, II	Review of specimens to the final practical exam	As above	Room 1, 3
	Wednesday	10.00-11.30	Lab.	2	I, II	Review of specimens to the final practical exam	As above	Room 1, 3

	Friday	12:30-14.00	Lab.	2	Whole class	Review of specimens to the final practical exam	Prof. Jerzy Walocha	Room 1, 3
FINAL EXAMS								
June 26th	Wednesday	10.00 - 11.30	Lab.	2	whole class	Final practical exam on anatomy - 30 questions	Dr Małgorzata Mazur	Rooms 1-5
June 28th	Friday	8.00 - 10.30	Lab.	2	Whole class	Final theoretical exam - 100 questions	Prof. Jerzy Walocha	online

LECTURES ONLINE ASYNCHRONOUS by Dr Marcin Lipski, uploaded on MS team:

- 1) Temporomandibular joint: function, introduction to TMJ dysfunction (week 4) – 1 h
- 2) Fascia of the neck, fascial spaces- suprahyoid, infrahyoid, communication and potential for infection. Ludwig's angina, Abscesses. Cervical emphysema.(week 13) – 2 h
- 3) Lymphatic system of the head and neck.(week 14) – 2 h
- 4) Muscles of the facial expression and mastication(week 16) – 2 h
- 5) Trigeminal system – overview.(week 18) – 2 h
- 6) Anatomy of anesthesia- intraoral injections.(week 19) – 2 h

