

Department of Anatomy, Histology and Embryology
Faculty of Medicine, Semmelweis University
2017/2018

Week	Lectures	Practical sessions	
		Dissection room	Histology laboratory
Week 1 September 11-15	1. The role of anatomy, histology and embryology in the medical curriculum. Terminology 2. The cell , cellular membrane, endoplasmic reticulum 3. Cell nucleus, mitochondrium, peroxyosome	General introduction to practical work in the dissection room, tools and rules Upper limb Bones	Light and electron microscopical techniques, the principles of practical histology classes
Week 2 September 18-22	4. Adhesion molecules, intercellular connections, epithelial cells 5. Types of epithelia. Glandular epithelium 6. The cellular framework, microtubules, IM filaments, actin microfilaments	Upper limb Bones and joints	Simple epithelia Stratified epithelia I.
Week 3 September 25-29	7. Exocytosis, Golgi apparatus, , vesicular transport, sorting. Endocytosis, cellular organelles. Apoptosis 8. General arthrology and myology. Joints , muscles and movements of the shoulder and the upper girdle 9. Muscles and actions of the elbow joint	Upper limb Dissection of the muscles, vessels and nerves of the flexor side	Stratified epithelia II. Glandular epithelium
Week 4 October 2-6	10. Joints, muscles and actions of the wrist and the hand 11. Connective tissue cells 12. Connective tissue fibres, types and formation. Extracellular matrix	Upper limb Dissection of the muscles, vessels and nerves of the flexor and extensor sides	Connective tissue I. Cells
Week 5 October 9-13	13. The principles of cell division, differentiation. Cell cycle, mitosis, meiosis 14. Supporting tissues (cartilage, bone) 15. Ossification, bone remodelling	1. Upper limb Dissection of the muscles, vessels and nerves of the extensor side, dissection of joints 2. Midterm test 1 Upper limb	Connective tissue II. Fibrous elements
Week 6 October 16-20	16. Components, muscles, joints and ligaments of the vertebral column. Intervertebral, atlantooccipital and atlantoaxial joints 17. Ribs, components and movements of the thorax. Abdominal muscles, rectus sheath. 18. Muscles, fasciae and movements of the neck. Back muscles, occipital muscles	Bones and muscles of the trunk. Demonstration of the muscles of the neck, back and abdomen.	Connective tissue III. Connective tissue types
Week 7 October 23-27	19. Bones, joints, construction of the pelvis. 20. Muscles and actions of the hip joint 21. Muscles and actions of the knee joint	Lower limb and pelvis Dissection of joints of the lower limb	Supporting tissues Cartilage, bone
Week 8 October 30- November 3	22. Subinguinal hiatus. Inguinal canal. Adductor and femoral canals 23. Muscles and joints of the foot. Architecture of the foot 24. Blood. Corpuscular elements. Red bone marrow, erythropoiesis, Formation of leukocytes	Lower limb Dissection of the muscles, vessels and nerves of the dorsal side	Types of ossification

Week 9 November 6-10	25. Muscle tissue 26. Gametes, fertilization, cleavage and blastulation 27. Implantation, bilaminar embryo. Fetal membranes, umbilical cord. Structure of the placenta, placental circulation	Lower limb Dissection of the muscles, vessels and nerves of the dorsal side	Blood and red bone marrow
Week 10 November 13-17	28. Molecular basis for gastrulation. Formation, differentiation and derivatives of the germinal layers. 29. Neurulation, folding of the embryo. Body axes, left-right lateralization and asymmetry. 30. Formation of the primary tissues. Homeobox genes, stem cells	Lower limb Dissection of the muscles, vessels and nerves of the ventral side	Smooth, skeletal and cardiac muscle types Revision
Week 11 November 20-24	31. Histology of vessels. 32. Bony framework of the skull. Sphenoid and ethmoid 33. Temporal bone. Internal and external skull base	Lower limb Dissection of the muscles, vessels and nerves of the ventral side	Midterm test 2: Epithelia, connective and supporting tissue. General embryology
Week 12 November 27-December 1	34. Facial skeleton. Orbit, nasal cavity 35. Skull. Infratemporal and pterygopalatine fossae 36. Nervous tissue. Glial cells	Bones of the skull Internal and external skull bases	Vessels: arteries, veins, arterioles, venules, capillaries.
Week 13 December 4-8	37. Temporomandibular joint, muscles of mastication; muscles of facial expression 38. Development of the skull, fontanelles. 39. Development of the limbs and the vertebral column together with the trunk	Bones of the facial skeleton, mandible. Orbit, nasal cavity, pterygopalatine fossa Temporomandibular joint	Nervous tissue
Week 14 December 11-15	40. Developmental malformations 41. Clinical anatomy of the musculoskeletal system 42. Clinical anatomy of the musculoskeletal system	Muscles of mastication and facial expression	Placenta, umbilical cord Revision

**Examination Period:
December 18 – February 2, 2018**