

EM II. Microscopic Anatomy and Embryology II.

Subject matter of the semester

I. Histology of lymphatic organs

II. Neurohistology

- a) Histology of neurons and supporting elements
- b) Fine structure of peripheral nerves
- c) Receptors and effectors, interneuronal synapses
- d) Histology of the brain and spinal cord

II. Development of the locomotor system

- a) Membranous and cartilaginous neurocranium and viscerocranium
- b) Development of the limbs and vertebral column
- c) Development of the muscular system

III. Development of the nervous system and organs of special senses

- a) Development and primary differentiation of the neural tube
- b) Development of the peripheral nervous system (neural crest, placodes)
- c) Development of the organ of vision
- d) Development of the organ of hearing&equilibrium

V. Microscopy of the central nervous system

- a) Microscopic anatomy of brain and spinal cord
- b) Nuclei and tracts of brain and spinal cord
- c) Microscopy of the autonomic nervous system, tracts

III. Organs of special senses (histology and embryology)

- a) Organ of vision, visual pathways
- b) Organ of hearing and equilibrium, auditory pathways, vestibular system
- c) Organ of smell, olfactory pathways
- d) Organ of taste, gustatory pathways
- e) Skin and appendages

IV. Endocrine organs (histology and embryology)

- a) Hypothalamo-hypophysial system
- b) Endocrine glands and cells

Midterm test I.

Written midterm (Moodle)

Topic: Histology of the lymphatic system, histology of the nervous system

Date: 5th week

Midterm test II.

Written (Moodle)

Topic: Microscopy and development of the central nervous system.

Date: 9th week

Final examination

Topics: Subject matter of the two semesters

1. Written pretest
2. Oral examination (2 digitized tissue slides, including theoretical relevances).

EM II ANNOUNCEMENTS

Evaluation is made using a five-grade scale (1-5).

Signing of the lecture book: active participation in histology lab sessions is obligatory. Students should attend at least 75% of the scheduled hours, including the obligatory midterm examination, to gain a signature proving the validity of the semester. Absences are therefore limited in **25%**.

Mid-term examinations: During the semester, both practical and theoretical knowledge will regularly be evaluated. There are two written (Moodle) midterm tests during the semester. Attendance at these midterms is obligatory. Students absent from the test should reattend at a given timepoint or their semester will not be accepted.

Exemptions/bonus marks - if the average of the two midterm marks is at least 4.00, students may earn a „bonus mark” to be counted with the examination marks at the final examination. Bonus marks are calculated as follows: good (4) - if the midterm results equal to 4+4 or 3+5; excellent (5)- if the midterm results equal to 4+5 or 5+5.

Please note that only marks from the first, official, attempt are counted in, marks earned at the retake midterm are not considered. Furthermore, the result of the first attempt cannot be improved by taking the retake midterm.

FINAL EXAMINATION

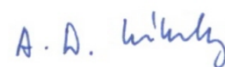
Topics: Subject matter of the two semesters

Written pretest (moodle)

Composition: 30% Histology, 40% Microscopy of the nervous system, 30% Embryology

Oral examination (identification of structures on 2 digitized tissue slides, as well as theoretical relevances from the subject matter of the two semesters (see the Topic list).

Students may request an oral examination to replace the written theoretical part for the 2nd or 3rd retakes of the final examination. The request will have to be submitted in writing with the Course Director 48 hours prior to the date of the final examination.



Dr. Andrea D Székely
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Course Director