

EM II. Microscopic Anatomy and Embryology II.

SUBJECT MATTER OF THE 2ND SEMESTER

I. Histology of the 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

III. Microscopy of the central nervous system (*aka Neuroanatomy*)

- 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

IV. 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

V. 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

VI. Endocrine organs (histology and embryology)

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

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 examinations, to gain a signature proving the validity of the semester. Absences are therefore limited in **25%**.

Students should present themselves **well prepared and on time to start with the practical work**. Attendance is regularly checked and students will have to sign a presence sheet once the teacher has verified their presence.

Students unfit to start with the practical class at the **starting time specified in the time table** will be recorded as „*being late*“. According to the *Study policy 28. § 12.point 3* such occasions of *being late* will add up to a **recorded absence**.

Furthermore, students **arriving later than 5 minutes past the starting time** may participate in the class but their presence will not be recorded/accepted (i.e. counts as an absence).

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 and a successful mark (i.e., at least a 2) at these midterms is obligatory.** Students absent from, or having an unsuccessful result (i.e., fail = 1) from any of the midterms should reattend at a given timepoint and pass the exam or their semester will not be accepted. The results of all tests will appear on the personal achievement cards.

Midterm test I. Written midterm (Moodle) Date: 8th week *(unless exempted)*
Topic: Microscopy and development of the central nervous system

Midterm test II. Written (Moodle) Date: 13th week
Topic: Histology of the organs of special senses;
Histology of the hypothalamo-hypophyseal system.

FINAL EXAMINATION

Topics: Subject matter of the two semesters

Parts of the final examination

Written pretest (moodle, *unless exempted **)

Oral examination

1. Identification of structures and explanation of theoretical background on 2 digitized tissue slides
2. one theoretical question from *the Microscopy of the CNS* (*unless exempted ***)

*Students may request an oral examination to replace the written theoretical part for the 2nd or 3rd retakes of the semifinal examination. The request will have to be submitted in writing with the Course Director **48 hours prior to the date of the examination. This request has to be resubmitted (again) in case students would like to ask for a further occasion.***

N.B. – In case neither the first nor the repeated takes of the final examination have been successful the exam can be postponed to the following, exam period (i.e. 'CV' exam if there are possibilities left).

* Exemptions **

EXAM COMPETITION

Students having an average of 4.00 from the two midterm marks are eligible to participate in the exam competition held during the last weeks (TBA). **Exemptions from the written (moodle) examination can be earned** by scoring at least 80% in the competition test (80-90% - 4; 90-100% - 5). These students need to sit for the oral part of the examination only.

MIDTERM EXEMPTION / CNS TOPIC EXEMPTION

There will be 4 consultational classes during weeks 4 -7, preceding the 1st midterm, when the Microscopy of the CNS will be discussed during the laboratory classes.

Topics for the weekly tests:

week 4	lectures No 4-5-6.
week5	lectures No 7-8.
week6	lectures No 9-10.
week7	lectures No 11-12.

The consultational classes may only then be useful if Students are well prepared. To facilitate the preparatory procedure, every such class will start with a 10 question moodle test. Please make sure you arrive on time to participate in the test.

Altogether 40 points may be earned writing these tests.

It is worth to prepare well for the tests -

- BECAUSE

1. Students earning at least **90% of the points (i.e., 36 points or more)** will be exempted from the **1st midterm AND from the CNS topic** of the final examination with a **mark 5**.
2. Students earning at least **80% of the points (i.e., between 32 and 35.9 points)** will be exempted from the **1st midterm AND from the CNS topic** of the final examination with a **mark 4**.
3. Students earning between **60-79.90% of the points (i.e., 24-31.9 points)** will be exempted from the **1st midterm (BUT NOT from the CNS topic at the final examination)** with a **mark 2 or 3 according to their scores**. HOWEVER, they may sit for the midterm in an attempt to upgrade their mark. In case they score at least 80% percent at the midterm test they will be exempted from the CNS topic of the final examination.
4. Students earning **less than 60%** from the consultation tests **MUST write and pass the midterm**. In case they score at least 80% percent at the midterm test they will be exempted from the CNS topic of the final examination.

Dr. Andrea D Székely
Associate Professor
Course Director