**Department of Anatomy, Histology and Embryology**
**Semmelweis University**
Faculty of Medicine
2022/2023. Academic year, 1st semester

# EM I. Macroscopic Anatomy and Embryology I.

*(new curriculum)*

## ANNOUNCEMENTS CONCERNING THE SEMIFINAL EXAMINATIONS

**(regular and new FM courses)**

Semifinal examinations are generally held on Tuesdays and Thursdays as appears in NEPTUN.
The exams start in the Histology Laboratories with a written test then continue with the dissection part in the dissection room (ground floor).

### REGISTRATION ISSUES

**Only students whose semester is accepted may sit for the semifinal examination**
**The topics of the examination cover the subject matter of the present semester.**

**Registration** has to be done in NEPTUN according to the Study and Examination Policy. Registration closes 24 hours prior to the beginning of the examination (see in NEPTUN).
**Absences** – no-show at the semifinal examination reduces the remaining examination possibilities and Students will have to pay a missed examination fee via neptun. In case of a health problem, students will have to present a **doctor's note within 3 working days** to be evaluated by the Head of Department. If accepted, the number of the student's examination possibilities will not be reduced.

**On the day of the examination**

Please leave your bags in a locker and gather in front of the Histology lab 10 minutes before starting time (***as seen in Neptun***).

**Please make sure you have the following items on you:**

- ID card/student card with a photograph (you may not start the examination without it)
- SeKA login details* (memorize or write them down on a small piece of paper)
- *Students who cannot login /forgot their password will be considered as „absent" (see above) and have to sit for the examination on a different day
- In case of a retake exam – proof of payment (except for the 1st retake)
- **DRESS CODE – formal (black and white)**
- Phones and smart watches have to be stored elsewhere during examinations
- Neither pens nor papers may be with you during the written part
- You cannot take notes or talk to your peers during the examination
- For safety reasons you may keep your valuables (money, cards, IDs, etc) on you, however „large" items, such as phones (switched off), tablets (switched off) and pencil cases will be collected upon entering the examination room.
- No chewing gum, no food, no drinks are allowed while on the premises

### PARTS OF THE SEMIFINAL EXAMINATION

**WRITTEN PART – Histology laboratory (Students may not leave the room during the test)**
The test is composed of 40 simple / multiple choice questions including Embryology (25%)
Writing time: 40 minutes
Following the completion of the test Students may **briefly** view their results, however, neither questions may be asked, nor notes may be taken during this time. Students may not leave the room before the inspection time expires.

**Passing rate: 60%** (below 60% =fail*, 60% =satisfactory, 70% =average, 80% =good,90% =excellent)

- **DISCRETIONARY FAIL** * - Students achieving a test result between 50 - 60% (20.00-24.00 points) fail the written part, however, they may continue with the practical examination.
- Students with a result **below 50%** from the written part **cannot continue** (i.e. fail) the examination and should leave.
- Students failing the examination in a subsequent practical part may be exempted from the written test during the retake examination ***ONLY*** if they gained a good (4), or excellent (5), result from the written test. These students should present themselves at the **dissection room** at the **beginning of the practical examination** on the day of the retake examination.
- *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 in case students would like to ask for a further occasion.***

## MACROSCOPY PART

This part is held in the Dissection room (ground floor). Rubber gloves and labcoats are provided by the department. Here the Students are examined on prosections in the following topics:

- Upper and lower limbs
- Trunk (thorax and abdomen including the inguinal canal)
- Head and neck (including the skull)

*Further questions, other than the identification of the presented specimens, may arise, e.g. discussing theoretical or embryological relevances. Students may be asked to produce schematic drawings of certain regions as part of the examination.*

## EXEMPTIONS

If the average of the two midterm marks is at least 4.00, students are offered to be exempted from the **oral (dissection) part of the semifinal examination** with the following marks: good (4) - if the midterm results are 4+4 or 3+5; excellent (5)- if the midterm results are 4+5 or 5+5. These students only need to take the written part of the semifinal examination.

**If students, who are exempted from the practical part**, fail the written examination with a test score between 50-60% (*see above) they **will have to continue the examination with a dissection part** to gain an acceptable exam mark. However, the oral exemption is only lost for that occasion because if students fail the oral part - the exemption will again be active at the next try.

## MARKING SYSTEM

The examination finishes in the Dissection Room, where Students are given a mark calculated from all marks.

- If one part of an examination results in fail (1), the entire examination is terminated with a fail (1) except for the so called *DISCRETIONARY FAIL (see above).
- **Students failing the examination, may repeat the exam once „free", every further attempt will be charged for.** The total number of examination seats is set (200% of the number of students in a given course), therefore the number of examination seats will not be increased*.
- **Retake of a successful examination -** students unhappy with the result of the examination may apply in writing with the Course Director, to retry the examination. They will be registered by the Course Director in neptun.
  ***Please note, that such a retake examination does not necessarily result in a better mark.***
- **Technical problems** concerning registration or deregistration via the neptun system are beyond the scope of the Department, Students should seek help from the neptun group of the Secretariat.
- The Registrar of the English Secretariat is not entitled to register or deregister students with the only exception of using the 4th chance upon getting the Dean's permission.

Dr. Andrea D. Székely
Associate Professor, Course Director

# EM I TOPICS OF THE SEMIFINAL EXAMINATION

## Macroscopic Anatomy and Embryology I.

***Musculoskeletal Anatomy***

General osteology, classification of bones
Continuous connections of bones. Classification of joints; components, movements and mechanisms
General myology
Structure of the vertebral column, the gross anatomy of the muscles acting upon it
Movements and muscles of the head&neck (atlantooccipital and atlantoaxial joints)
Joints of the shoulder girdle, the gross anatomy of the muscles acting upon them
Shoulder joint, the gross anatomy of the muscles acting upon it
Axillary fossa, quadrangular and triangular spaces
Muscle compartments and cross section of the arm
Elbow joint, the gross anatomy of the muscles acting upon it. Cubital fossa
Muscles and cross section of the forearm
Structure and movements of the radiocarpal joint, gross anatomy of the muscles acting upon it
Osteofibrous spaces and muscle compartments of the hand, tendinous sheaths
Carpometacarpal, metacarpophalangeal and interphalangeal joints of the thumb and fingers, the gross anatomy of the muscles concerned with the movements
Osteofibrous structure of the thoracic cage (bones, joints, ligaments, movements)
Thoracic muscles
Diaphragm
Muscles and spaces of the abdominal wall, rectus sheath
Composition of the pelvis (bones, ligaments and membranes)
Muscles of the buttock, the posterior abdominal wall and the pelvis (external and internal muscles of the hip)
Inguinal canal, femoral canal
Subinguinal hiatus, vascular and muscular compartments; adductor canal, femoral canal
Hip joint and the gross anatomy of the muscles concerned with the movements
Osteofibrous compartments, muscles and cross section of the thigh
Knee joint and the gross anatomy of the muscles concerned with the movements. Popliteal fossa
Osteofibrous compartments, muscles and the cross section of the leg
Ankle joint together with the gross anatomy of the muscles acting upon it
Subtalar and talocalcaneonavicular joints, the muscles acting upon them
Osteofibrous compartments and structure of the foot, arches of the foot
Bones, spaces and connections of the skull, external and internal skull bases
Neurocranium, components and cavities (anterior, middle and posterior cranial fossae)
Viscerocranium, components and cavities (walls and connections of the nasal cavity, orbit, oral cavity, pterygopalatine and infratemporal fossae)
Temporomandibular joint and the gross anatomy of the muscles of mastication
Superficial muscles of the neck, muscle triangles
Deep muscles of the neck and the laminae of the cervical fascia
Muscles of facial expression

***Further topics with relevence to the musculoskeletal system***

Lymphatic drainage of the thoracic wall including the mamma
Dorsal branches of the spinal nerves, intercostal nerves
Cervical plexus, brachial plexus, lumbar plexus, sacral plexus.
Innervation of limbs
Innervation of the trunk
Cutaneous innervation
Axillary artery and branches. Arteries and veins of the arm, forearm, and hand

Arteries and veins of the lower limb
Lymph nodes and lymphatic drainage of the upper and lower limbs

***General Embryology and development of the musculoskeletal system***
Spermatogenesis, spermiogenesis
Oogenesis
Fertilization, cleavage of the zygote
Blastocyst formation; the bilaminar embryonic disc
Implantation
Formation of body axes, parts of the early embryo (yolk sac, amnion, chorion, body stalk)
Gastrulation
Formation of the intraembryonic mesoderm; the notochord
Neurulation (neural tube and neural crest)
Derivatives of ectoderm, endoderm and mesoderm
Folding of the embryo
The structure and function of the placenta
Development of the fetal membranes (chorion and amnion), umbilical cord
Twin formation
Membranous and cartilaginous neurocranium and viscerocranium
Development of the limbs and vertebral column
Development of the muscular system