

CELL BIOLOGY PRACTICE

MSc in Molecular Biology - Specialization Module in Biochemistry-Genomics

Division of Cell Biology

Subject: CELL BIOLOGY PRACTICE

Year, Semester: 1st year/2nd semester

Number of teaching hours:

Practical: 15

2nd week:

Practical: Preparation for labs

3rd week:

Practical: Cell types and basic constituents:
separation and staining of blood cells

4th week:

Practical: Cell types and basic constituents:
separation and staining of blood cells

5th week:

Practical: Membrane transport: multidrug
resistance

6th week:

Practical: Membrane transport: multidrug
resistance

7th week:

Practical: Homeostasis: cell viability and death

8th week:

Practical: Homeostasis: cell viability and death

9th week:

Practical: Cell morphology, subcellular structures:
fluorescent visualization

10th week:

Practical: Cell morphology, subcellular structures:
fluorescent visualization

11th week:

Practical: Cell signaling and cell division

12th week:

Practical: Cell signaling and cell division

13th week:

Practical: Remedial lab

14th week:

Practical: Remedial lab

Requirements

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Department: Department of Biophysics and Cell Biology, Cell Biology Division

Recommended semester: 1st year 2nd semester.

Prerequisites of the course: No prerequisites.

Teaching staff: Dr. Katalin Goda and members of the Department

Education manager: Dr. Enikő Nizsalóczy (e-mail: cellbioedu@med.unideb.hu)

Aims of the course: The course gives an overview of the functional anatomy of higher eukaryotic animal cells with examples of the paradigmatic molecular mechanisms.

Material to be studied:

Cell biology Lab Notes: the currently required, up-to-date version is available at the course home page on the eLearning site.

Relevant parts of the Cell Biology Lecture course (see there).

Course home page: <https://biophys.med.unideb.hu>, elearning.med.unideb.hu

Signature: Signing for the course can be denied if the student has not performed all the lab practices or any one of the lab logs has not been accepted.

Type of exam: Practical grade

Requirements:

Completing all labs, and writing up the results and their interpretation in a lab log book on the spot is required. Only handwritten, bound lab log books are acceptable. The compulsory preparation for the labs includes writing the aims of the lab and the methods of implementation into the lab logbook before the lab. During the lab a log must be written into the book in a way that allows reproducing the work done. So, it must document what the student has actually done, the results obtained (including graphs and color drawings), and their interpretation. The lab tutor will only sign the log upon proper, independent completion of the lab. All labs must be accepted by a valid signature in order to receive the end of term signature.

Labs can only be performed by students who arrive well-prepared. This is checked by a ~10 min test at the beginning of the lab, graded on a scale of 0-5 according to the following table:

Number of correct answers	Test Points (TP)
less than 5	0
5	1
6	2
7	3
8	4
9-10	5

A TP of 0 results automatically in dismissal from the lab.

Furthermore, if the student's participation in the lab is not acceptable, the lab tutor will dismiss the student from the lab immediately, and the lab will be considered failed.

Tps ≥ 1 are averaged and, after rounding, yield the final practical grade. If the average of the TP is below 1.5, it results in a practical grade 1 (fail). In these cases, a written lab exam can be done for the pass (2) mark before the exam period (covering the topics of all labs).

The practical grade cannot be improved in the exam period.

Since all labs must be accepted in order to receive the end of term signature (and a practical grade), those missing a lab are offered one (1) extra occasion to make up for the missed lab during the remedial week. This offer includes both the cases of writing a lab test of grade 0 earlier, and labs missed because of certified illness. In the latter case, certificates must be filed with the Education coordinator in Office Hours at the earliest possible occasion, so the student can be assigned a remedial lab appointment.