EPFL

BIOENG-516 **Lab methods : histology**

Sordet Jessica

Cursus	Sem.	Type
Bioengineering	MA1, MA3	Opt.
Sciences du vivant	MA1, MA3	Opt.

Language of teaching	English
Credits	2
Withdrawal	Unauthorized
Session	Winter
Semester	Fall
Exam	During the semester
Workload	60h
Weeks	14
Hours	**2 weekly**
Project	2 weekly
Number of positions	**12**

It is not allowed to withdraw from this subject after the registration deadline.

Remark

Inscriptions sur dossier auprès de la responsable du cours; présence aux cours obligatoire

Summary

Presentation of the diverse techniques to prepare samples for bright field microscopy, as well as procedures for standard histology stains and proteins detection with observation of tissues under microscope.

Content

Theory :
 • Sample preparation for bright field microscopy
 • Artefacts
 • Special staining
 • Protein detection
 • Introduction to pathology

Praxis :
 • Routine stain for pathology (hematoxylin and eosine)
 • Special stain to highlight different structures
 • Immunohistochemistry
 • Observation and description of tissues under microscope

Keywords

Techniques
Histology
Microscopy

Learning Prerequisites

Required courses
None

Learning Outcomes

By the end of the course, the student must be able to:
- Choose Methods to prepare samples
- Compare Advantages and disadvantges of different techniques
- Describe Methods for protein detection
- Perform Protocols for Hematoxylin and eosin as well as immunohistochemistry

Transversal skills

- Plan and carry out activities in a way which makes optimal use of available time and other resources.

Teaching methods

Ex cathedra teaching and praxis

Expected student activities

Lecture will take place on the 21th, 22nd and 26th of September 2017

Attendance at lectures
Completing the pratical part
Prepare description of tissues

Assessment methods

Written exam

Resources

Bibliography

Theory and practice of histological techniques / ed. by John D. Bancroft [et al.], 6th edition

Ressources en bibliothèque

- Theory and practice of histological techniques / Bancroft

Websites

- http://hcf.epfl.ch

Moodle Link

- http://moodle.epfl.ch/course/view.php?id=13391