

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 Session	Unauthorized Winter
Semester	Fall
Exam	During the semester
Workload	60h
Weeks	14
<b>Hours</b>	<b>2 weekly</b>
Project	2 weekly
<b>Number of positions</b>	<b>12</b>

**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

Praxis :

- Routine stain for pathology (hematoxylin and eosine)
- 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 disadvantages 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 20th, 22nd and 27th of September 2016**

Attendance at lectures  
Completing the practical 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>