

BIO-695

**Image Processing for Life Science**

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<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
Molecular Life Sciences		Opt.

Language of teaching	English
Credits	2
Session	
Exam	Written & Oral
Workload	60h
<b>Hours</b>	<b>42</b>
Lecture	14
Exercises	28
<b>Number of positions</b>	<b>16</b>

**Frequency**

Every year

**Remark**

This course is open to max. 16 students. To register, contact EDMS program administrator.

**Summary**

Registration details will be announced via email. It takes place from September to December & intends to teach image processing with a strong emphasis of applications in life sciences. The idea is to enable the participants to solve image processing questions via workflows independently.

**Content**

Over the last decades, the images arising from microscopes in Life Sciences went from being a qualitative support of scientific evidence to a quantitative resource.

To obtain good quality data from digital images, be it from a photograph of a Western blot, a TEM slice or a multi-channel confocal time-lapse stack, scientists must understand the underlying processes leading to the extracted information. Of similar importance is the software used to obtain the data.

**Note**

Please do not register by yourself to this course, this will be done by the EDMS program administrator once you'll be selected by the course organizer (upon motivation letter)!

**Keywords**

Biology, Image Processing, Microscopy, ImageJ, FIJI, Macros, Data, Segmentation, Filtering Visualisation Open so

**Assessment methods**

Continuous  
Multiple

**Resources****Websites**

- <http://phd.epfl.ch/edms/coursebook>