

BIO-603(MS) **Practical - Manley Lab**

Manley Suliana

| Cursus | Sem. | Type |
|-------------------------|------|------|
| Molecular Life Sciences | | Obl. |

| | |
|----------------------------|----------------|
| Language of teaching | English |
| Credits | 1 |
| Session | |
| Exam | Project report |
| Workload | 30h |
| Hours | 24 |
| Courses | 2 |
| TP | 22 |
| Number of positions | 3 |

Frequency

Every year

Remark

Next time: January 2019

Summary

The students will acquire knowledge on the fundamental aspects of super-resolutions microscopy. Practical skills include preparation of samples of cells (either bacteria or eukaryotic cell culture) for imaging, image acquisition, and data analysis.

Content

Theory: Lecture and readings on the fundamental aspects of super-resolution microscopy.
 Practical part: Epifluorescence microscopy, super-resolution microscopy, sample preparation, image analysis.

Keywords

fluorescence
 super-resolution (PALM, STORM, SIM)

Learning Prerequisites**Required courses**

Biomicroscopy I and II (MICRO-561, MICRO-562)

Learning Outcomes

By the end of the course, the student must be able to:

- Explain the operating principles and important requirements and limitations of super-resolution microscopy

Assessment methods

Project report, oral presentation

Resources**Websites**

- <http://leb.epfl.ch>