

MIAP Basic Imaging Techniques Workshop

The Life Imaging Center (LIC), a central core facility of the Albert-Ludwigs-University, hosts more than 20 microscope systems. For this reason, most modern microscopic techniques can be performed in the facility. The LIC has a major focus on live cell imaging of various cell types, organisms and culture systems used in signaling research, developmental biology and neurobiology.

To provide the best experience and teaching to over 300 users of the facility, MIAP offers various microscopy workshops throughout the year. This basic workshop is not limited to facility users and is equally suited for life science students, *Ph.D.* students, staff scientists and postdocs. In lectures and hands-on sessions, the 3-day workshop covers basic methods of imaging techniques on wide field and confocal systems and image analysis and visualization with specialized software.

October 7th – 9th 2019

Life Imaging Center (LIC), Center for Biological Systems Analysis (ZBSA)
Albert-Ludwigs University Freiburg
Habsburgerstr. 49, 79104 Freiburg im Breisgau

Organization: Microscopy and Image Analysis Platform (MIAP), University of Freiburg
Life Imaging Center (LIC), University of Freiburg

Teachers: Roland Nitschke (MIAP, LIC)
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Sibylle Bartsch (MIAP), Tobias Wernet (MIAP)

Day 1: October 7th, 08:30 – 18:00	
08:30 – 09:00	Welcome & General Workshop Introduction
09:00 – 10:00	Lecture Block A: Basics in Microscopy
10:00 – 10:15	COFFEE BREAK
10:15 – 12:15	Practical Part: Wide field or LSM Systems (Diatoms, Live Cell, DIC)
12:15 – 13:15	LUNCH BREAK
13:15 – 14:15	Lecture Block B: Sample Preparation
14:15 – 16:15	Practical Part: Wide field or LSM Systems (Fluorescent Beads, Fixed Fluorescent Cells)
16:15 – 16:30	COFFEE BREAK
16:30 – 17:00	Hands-on Session: Analysis with ZEN blue
17:00 – 18:00	Data Analysis

Day 2: October 8th, 08:30 – 18:00	
08:30 – 10:00	Lecture Block C: Imaging Technology (CCD, Camera, Pinhole, PSF)
10:00 – 10:15	COFFEE BREAK
10:15 – 12:15	Practical Part: Wide field or LSM Systems (Fluorescent Live Cells)
12:15 – 13:15	LUNCH BREAK
13:15 – 14:15	Lecture Block D: Image Acquisition (Dyes, Spectral Recording, Filter, FRAP)
14:15 – 16:15	Practical Part: LSM Systems (Fluorescent Live Cells and Live Cells Transfected with Dronpa)
16:15 – 16:30	COFFEE BREAK
16:30 – 17:00	Hands-On Session: Analysis with ZEN black
17:00 – 18:00	Data Analysis

Day 3: October 9th, 08:30 – 17:00	
08:30 – 09:30	Software Demo: Image Analysis (Deconvolution, Huygens, Imaris)
09:30 – 09:45	COFFEE BREAK
09:45 – 11:45	Practical Part: Wide field and LSM Systems (Fluorescent Live Cells and Live Cells Transfected with Dronpa)
11:45 – 12:45	LUNCH BREAK
12:45 – 14:45	Data Analysis, Preparation of Data Presentation
14:45 – 15:00	COFFEE BREAK
15:00 – 16:00	Data Analysis, Preparation of Data Presentation
16:00 – 17:00	Participant's Data Presentations and Open Discussions

- This is a preliminary announcement / agenda, which may be subject to changes.
- For more information, please contact MIAP: <https://www.miap.eu> info@miap.eu

