



LMIF User Policy

This policy governs the usage of the James Madison University (JMU) Biology Department's Light Microscopy and Imaging Facility (LMIF) and outlines basic procedures that are designed to protect the equipment, coordinate the needs of multiple users, and enable all users to perform their research efficiently and effectively. Violation of any of these policies may result in suspension of user privileges.

Training and Gaining Access to the Facility

Microscopes are not like other pieces of lab instrumentation: they do not make measurements for you like a pH meter, spectrophotometer, or DNA sequencer. Microscopes are sophisticated instruments that *enable scientists* to examine specimens and acquire data in the form of images. The scientist is an essential element of the process. Well-trained microscopists can acquire highly informative data and beautiful images; poorly-trained microscope "users" might generate good data and images, but might also generate poor, misleading, or even entirely false images. The purpose of our training program is to help you be a good microscopist, not a "user" who just knows how to push the right buttons.

You must undergo training by the LMIF Director for each instrument that you wish to use. Until you complete your training, you will only be able to use the instruments under the supervision of the Director or a trained user. Ideally, you should start your training less *no more than one month before you plan to start your experimental imaging*. If you schedule too far in advance, you will forget everything between your trainings and your first use.

Your training will consist of at least two, one-hour in-person sessions as well as asynchronous readings and videos. Depending on the complexity of the instrument and techniques you are learning, you may require additional training sessions. Upon successfully completing the training, the Director will give you access to the Google Calendar booking system. Your research mentor may then request JACard access to room 2035 via the Biology Department's online form.

Booking Time on the Microscopes

JMU users will be granted access to the facility via their JACard; after-hours building access must be arranged by your faculty research mentor through the Biology Department. Non-JMU users will arrange access options with the Director.

Use the Google Calendar booking system to reserve time on the equipment. This is NOT optional. Even if the schedule is completely empty, you must sign-up. Having an accurate schedule of who has and will use the equipment helps all of us by avoiding double-bookings, helping track and troubleshoot problems, and showing the value of the LMIF and helping to justify its improvement and expansion.

Please be considerate of other people's needs. So that everyone has a chance to use the equipment when they need it, **you may not book more than three sessions in advance**. In periods of high instrument demand, the Director may prioritize user access in the following order: Biology Department > College of Science and Math > all other JMU users > non-JMU users.

If you cannot use your booking, are running more than 30 min. late, or finish more than 30 min. early **please change your booking** so that other users can see that the microscope is free. **If you do not show up within an hour of your start time, your session will be cancelled** so other users can book it.

Using the Microscopes

If someone is signed-up for the microscope before you, ask the person before they are finished to leave the system running for you. This saves everyone time and also minimizes wear on the system. HOWEVER, do NOT leave the system running for someone scheduled after you if you haven't confirmed that they are indeed going to use it.

You may only use equipment for which you have been *fully trained* by the Director.

You must fill-in the paper log-sheet next to the microscope. This record, together with the booking calendar, helps us track and trouble-shoot problems.

Treat the instruments with utmost care. Objective lenses in particular are very delicate and expensive. On inverted microscopes, they are also prone to damage by immersion oil. Do not use excessive quantities of oil; it can run down the edges and enter the lens. If this happens, the objective will be unusable for several weeks while it is sent away for a very expensive cleaning.

Report any problems or accidents to the Director immediately.

Be considerate of the next user. Throw trash in the trash can, wipe up oil or other spills and leave the area as you would expect to find it. Clean oil off lenses using lens cleaner and lens paper. If you finish early, adjust your time on the booking calendar.

Any items left on the microscope tables will be discarded without warning. Contact the Director if you need dedicated storage space.

Saving and Storing Data

At the end of your session, you must **transfer all of your files** and remove them from the computer. **Files left on the Facility computers may be deleted without warning.** Files may be transferred via the Biology Department's internal servers, USB drives, and the cloud (e.g. OneDrive, OSF, Teams).

Safety and Liability

- **Safety:** All users are required to complete the Biology Department's Lab Safety Form.
- **IACUC and Biosafety:** Users must notify the Director if their experiments involve any animals regulated by IACUC or Biosafety Level 2 organisms.
- **Liability:** Non-JMU users are required to sign a liability release document.

Attribution

Users must acknowledge the "JMU Biology Department's Light Microscopy and Imaging Facility" in all publications and presentations that include data acquired in the facility.