

## Using MATFab instrumentation and facilities in undergraduate and graduate coursework

Teaching undergraduate and graduate students about the instrumentation available in the MATFab facility and how they are used in research and discovery is something we value and aligns with the overall mission of the University of Iowa. Information on ways the MATFab facility can be incorporated into your course are provided below.

1. We can provide tours of our facility to give an overview of the instrument capabilities. A tour is where the staff will explain the different types of instruments in the MATFab facility and talk about different types of applications. If you would like to schedule a tour, please contact us at [matfab-staff@uiowa.edu](mailto:matfab-staff@uiowa.edu) for scheduling. Please schedule **at least 3 weeks in advance**. There is no cost associated with a tour, but our ability to offer a tour is contingent on staff availability and time. If you have a large course, it may have to be split into smaller groups.
  - Maximum group size for the characterization laboratory tours is 20, but it may be possible for multiple staff to give tours of different parts of the lab at the same time.
  - Group size for a fabrication tour is four.
2. We can provide a demonstration of the instrumentation. A demonstration is when a staff member will use a standard sample that we have prepared to provide more depth in knowledge about the instruments and the results that can be obtained for the instrument. Please contact us at [matfab-staff@uiowa.edu](mailto:matfab-staff@uiowa.edu) to arrange a meeting to discuss what instruments are of interest and what applications you would like to highlight. This should be done **at least 3 weeks in advance** to make sure the instrument and sample is available for the course. Maximum group size is 10. There is no cost associated with a demo.
3. We also can provide opportunities for students collect data as part of a laboratory course. In this case the students will prepare the samples or work with premade samples and bring them to the facility to analyze on the instruments. The staff members will be running the instruments or facilitating the instrument operation depending on the exact equipment that is being utilize for the course. Please contact us at [matfab-staff@uiowa.edu](mailto:matfab-staff@uiowa.edu) to arrange a meeting to discuss what instruments and sample analysis **at least 1 months in advance** so that we can ensure instrument availability and adequate time for sample preparation. Maximum group size is 10 but smaller groups may be required for specific equipment. Instrument time will be charged but staff time will not be charged. This charge structure is consistent with the subvention provided by the general fund for support of the MATFab facility. Billing: Staff members will be responsible for reserving the instruments as needed in the BookIt Lab software. Invoices for charges will be sent to the departmental administrators through an established MFK mechanism. Please notify your departmental administrator that you will be utilizing the MATFab facility in your course to expedite billing. Lab fees can be used for data collection on instruments in the MATFab facility.
4. MATFab staff are also available to give guest lectures on instrumentation in your course. Please contact us at [matfab-staff@uiowa.edu](mailto:matfab-staff@uiowa.edu) to arrange a meeting with the particular staff member that you would like to have guest lecture in the class. Please contact us at **least three weeks in advance**. No staff time will be charged, but ability to give the guest lecture will be contingent on staff availability, interest, and time.