

Safety Training for Materials Science and Engineering

To help achieve a high standard of safe laboratory practice, appropriate safety training is required for everyone working DMSE laboratories. Completion of this safety training regimen, including annual review, is required for all researchers in DMSE laboratories. Failure to complete the required training in a timely manner, or failure to adhere to established safety policies and procedures will result in revocation of laboratory privileges.

The safety training program has four parts, called tiers. The four tiers are:

1. A general introduction to laboratory safety.
2. More detailed training in specific lab safety topics (chemical safety, radiation safety, laser safety, biological safety, and physical hazards in the laboratory).
3. An in-person safety orientation for each specific laboratory you use regularly.
4. An annual department-wide review of lab safety.

Tiers 1 and 2 may be completed online via Canvas at any time. Tier 3 is completed in person with your principal investigator (PI), another member or your research group, or the manager of the shared-use labs. Tier 4 is completed annually (usually in September), at a department-wide meeting.

How to complete your required safety training:

1. Join the safety training course in Canvas. To do this, contact Ellen Libao (elibao1@jhu.edu) or Alden Murphy (amurph57@jhu.edu) and they will add you to the course.
2. Download and print the *DMSE Safety Training Tracking Sheet* to track your progress. The tracking sheet will be kept on file as a record of your training and must be turned in to the DMSE Administrative Office when you have completed the web training and lab orientations.
3. For Tiers 1 and 2, complete the relevant modules online (available using the course menu on the lefthand side of the Canvas site). For each module, there is a video podcast to watch and a content quiz to complete. You must also certify that you have watched the video before you can access the content quiz. A score of 80% or higher on the content quiz is required to receive credit for complete a module. (Detailed instructions appear below.) For each quiz, **print out or screen capture the results page showing your score.**
4. For Tier 3, you will need a separate *DMSE Lab Safety Orientation Checklist* (in the *Information and Forms* section) for each laboratory in which you work frequently. Ask your PI (or the person he or she designates) to guide you through the orientation for each lab. The orientation sheet for each lab must be signed by you and by the person training you.
5. Sign the certification at the bottom of your tracking sheet.
6. Turn in your completed tracking sheet, the printed results of your quizzes, and your orientation checklist(s) to the DMSE Administrative Office.
7. For Tier 4, attend the annual department-wide safety review meeting each fall. Be sure to sign in so that you receive credit for having attended.

In the Canvas training, there are six training modules (the introduction and the five specialized areas). Within each module, there are four things to be done:

1. Download and print the slides for the video (optional).
2. Watch the video.
3. Certify that you have watched and understood the video.
4. Take the quiz for the module achieving a score of at least 80%.

To complete a module, simply click on the link from the Course Menu and then click on the title of the module that appears. You'll see a table of contents at left, you are required to go through the sequence of steps in the order given above.

After watching the video, proceed to the certification "test". Once the test opens, click on "Agree" to certify that you've watched the video, and then on "Submit quiz" to submit your test.

After completing the certification, you may proceed to the quiz testing your knowledge of the material covered in the video and slides. Answer each question, and then click on "Submit quiz."

Once you have completed the quiz with a score of at least 80%, you must print out your grades. Go to your Canvas "Dashboard" and click "View Grades" on the right-hand side. And submit it to the DMSE Administrative Office as evidence that you have completed the module.

If you fail to achieve a score of 80%, review the slides and/or video before re-taking the quiz. You may attempt the quiz as many times as necessary to achieve a passing score. It is fine to use the slides while complete the quiz.

Repeat the above steps for each module you are required to complete.