

MSE 183 Freshman Materials Laboratory

Spring 2021 Syllabus

Instructor

Dr. Laura Nagel, 201A MSEB, lnagel@illinois.edu

Teaching Assistant

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Office Hours

Office hours and TA meetings with group leaders will be posted on Compass2g.

Overview

MSE 183 is a team-based discovery course, consisting of laboratory experiments, literature research, and exhibit preparation in support of a presentation at Engineering Open House (EOH). EOH will be a virtual experience this year. Students will be able to participate in MSE 183 whether they are on campus or fully remote. The EOH project will build upon the project first presented at the end of the semester in MSE 182. Students are expected to develop a concept, perform experiments to validate that concept, and then build an exhibit, including a poster and hands-on demonstrations, which will be presented at EOH. Projects can revolve around any topic relevant to materials science and engineering, and particular emphasis will be given to understanding the science and engineering aspects of the project. It will be important that the project be designed to be understood and appealing to the general public.

Catalog Description and Prerequisites

Credit: 1 hours. Team-based laboratory developing concepts introduced in MSE 182. Practical descriptions of materials concepts, literature research, experimental design, concept validation, teamwork, and presentation of results. Prerequisite: MSE 182.

Optional Textbook:

Materials Science and Engineering, An Introduction, 6th Ed., William D. Callister Jr
This is the textbook from MSE 182.

Grading:

Grading will primarily be based on the project presented at EOH and the work leading up to the project. Groups will be graded as a team, although grades for individuals within a team will be modified according to individual effort and accomplishments of that individual. Specific expectations include that all team members participate in research on the materials science and engineering concepts underpinning the EOH exhibits, exhibit preparation, and EOH.

Grades

- A: outstanding performance
- B: good performance
- C: acceptable performance
- D: poor performance
- F: unacceptable performance