

MECE 3245 Materials Science Lab

Required Textbook: Course materials and Lab Manuals posted in Blackboard Learn

Recommended Textbook: Materials Science and Engineering: An Introduction, 9th edition (or 8th edition), William D. Callister Jr. and David G. Rethwisch, John Wiley and Sons Publishers

Prerequisites: MECE 3345 (Materials Science)

Grading Policy:

Labs	40%
Exams	60%

Course Topics:

- Age hardening
- Creep
- Tensile test
- Heat treatment
- Fatigue
- Charpy test
- Phase Diagram
- Recrystallization

Learning Objectives:

Students who successfully complete this course are expected to meet the following course outcomes.

ABET Student Outcomes:

- a) an ability to apply knowledge of mathematics, science and engineering
 - Students will further develop their basic skills of problem solving and critical thinking by learning physical concepts in engineering materials and by applying this knowledge of mathematics, science, and engineering to efficiently solve problems related to materials and devices.

Additional Statements:

Syllabus is subject to change.