

Fund-Fracture Mechanics

Last Updated: Tue, 03/17/2026

Course prefix: AE

Course number: 7772

Section: A

CRN

86754

Instructor first name: Shuman

Instructor last name: Xia

Semester: Fall

Course description: Advanced study of failure of structural materials under load, mechanics of fracture, and microscopic and macroscopic aspects of the fracture of engineering materials. Crosslisted with CHE, CEE, ME, and MSE 7772.

Academic honesty/integrity statement:

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy.

Core IMPACTS statement(s) (if applicable):

This is a Core IMPACTS course that is part of the STEM area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question:

How do I ask scientific questions or use data, mathematics, or technology to understand the universe?

Completion of this course should enable students to meet the Learning Outcome:

Students will use the scientific method and laboratory procedures or mathematical and computational methods to analyze data, solve problems, and explain natural phenomena.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

1. Inquiry and Analysis

2. Problem-Solving

3. Teamwork