

Engr 674: Fracture Mechanics

[School of Engineering](#)

Stress fields near crack tips; modes of fracture; stress intensity factors; numerical methods. Critical stress intensity; fracture toughness. Energy considerations; the J-Integral. Crack-tip plasticity; small-scale yielding; crack-opening displacement. Fatigue; cyclic deformation; fatigue crack initiation.

3 Credits

Prerequisites

- [Engr 617: Continuum Mechanics](#) (Minimum grade: C)

Instruction Type(s)

- Lecture: Lecture for Engr 674

Subject Areas

- [Engineering, General](#)
- [Mechanical Engineering](#)
- [Civil Engineering, General](#)

