



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# Fracture and Fatigue of Engineering Materials

## MATSCEN 5763.70

**Credit Hours:**

1.50 - 1.50

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**Course Components:**

Lecture

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**Course Description:**

This seven week course will provide a background in fracture and fatigue with a survey of material-specific mechanisms.

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**Prerequisites and Co-requisites:**

Prereq: 3261, or Grad standing; or permission of instructor.

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**Course Goals / Objectives:**

- Gain an understanding of linear elastic and elastic-plastic fracture mechanics, and apply this knowledge to the analysis and design of structural materials
- Consider damage tolerant and total lifetime approaches to fatigue failure. Concepts will be reinforced through case studies