

## M.E. 472/572 Materials Properties & Processes – winter 2018

**Instructor:** R. Narainen, Ph.D.

**Phone:**

**Email:** [narainen@oakland.edu](mailto:narainen@oakland.edu)

**Office:**

**Lecture:** TR: 5:30pm – 7:17pm (From 1/4/2017 to 4/19/2017)

**Location:** EC-281

**Course Section:** (4 credits)

**Grading:**

**Course Materials**

Exam 1: 20%; Exam 2: 15%; Final exam: 30%

\* Lecture Notes (ppt format)

Project: 20% HW: 15% (3 HW)

\* No text required

### Important Dates

Date	Activity
2/15 (Th)	Exam 1 (Mid-Term): 5:30 – 7:15pm
2/17 – 2/25 No Classes	
3/1	Project: Group and Title submission
4/10 - 4/12 – 4/17	Projects due: oral and written
3/15 (Th)	Exam 2: 5:30 – 6:30pm (1 hour)
4/19 (Th)	Final Exam : 7:00PM – 10:00PM
4/17 End Winter Class	

**COURSE OBJECTIVES:** By end of the course, the successful student will be able to:

- 1 Apply knowledge of mathematics, science, engineering to identify, formulate and solve engineering problems
- 2 Explain the classical theory of elasticity and plasticity of material
- 3 Apply fracture mechanics and analyze fatigue failure under cyclic loading
- 4 Explain/Apply materials processing and engineering
- 5 Explain/Apply fundamentals of manufacturing processes
- 6 Project study related to materials properties and manufacturing processes