Week 1
- Basic Design Review
- Syllabus
- Research Project
- Reverse Engineering
- Team Project

Week 2
- Reverse Engineering
- Case Study/HW 1

Week 3
- Drafting Style & Tolerances
- Draft Comparison
- PPT
- Drawing Review/
  Tolerance Analysis
- Case Study/HW 2

Week 4
- Drafting/Peer Editing
- Drafting/
  Manufacturing Plans
Week 5

DFM—Casting, 3D Printing

Advanced Mat’l Selection
Case Study/HW 3

Sept 23
Sept 25

Week 6

Basic Tribology
Journal Bearing Design

Sept 30
Oct 2

Week 7

O-Ring/Seal Design
Interim Presentations
Project Phase 1
Case Study/HW 4

Oct 7
Oct 9

Week 8

Failure Modes and Effects Analysis
FMEA PPT
Fault Tree Analysis

Oct 14
Oct 16

NOTE: SUBJECT TO CHANGE
FMEA/FTA In-Class Activity

Design Codes
Case Study/HW 5

Week 9

Numerical Methods/Design Optimization
FreeMat/Numerics

Week 10

Casting Setup/Training

Casting Pouring/Tensile Testing
Project Phase 2
Case Study/HW 6

Week 11

Design Project

Week 12

NOTE: SUBJECT TO CHANGE
Week 13
- Nov 18: Design Project
- Nov 20: Design Project
  Case Study/HW 7

Week 14
- Nov 25: Design Project
- Nov 27: Thanksgiving Day
  No Class

Week 15
- Dec 2: Presentations
- Dec 4: Presentations
  Project Phase 3

NOTE: SUBJECT TO CHANGE