Mechanical System Design Project

Teams of 3-4 students select from projects supplied by real customers. Each team is advised by a member of the Senior Design staff. The project has the following objectives:

To provide realistic reasons to perform detailed design calculations.
To provide design practice using the same procedures as Senior Design.

Startup: Teams Projects

Phase 1 - Design Specifications (20%)

- Description
- Deliverables (Memo, UDesign, Sketches, Schedule)
- Grading Rubric

Phase 2 - Concept Selection (30%)

- Description
- Deliverables (Memo, UDesign, Sketches, Schedule, Drawings, Presentation, Peer Evaluation)
- Grading Rubrics (Memo, Presentation)

Phase 3 - Design Completion (50%)

- Description
- Deliverables (Memo, UDesign, Sketches, Schedule, Drawings, Presentation, Peer Evaluation)
- Grading Rubrics (Memo, Presentation)

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Approach (JD Consulting, Inc.)

- Customers need:
  - Specific mechanical component design
  - A professional process
- Scenario
  - Team assigned for 11-week project
  - Expertise
    - Customer – Initial Market
    - Team – Design process
      - Benchmarking
      - UDesign
      - Machine design

Communication

- Initial Customer Meeting – ASAP
  - Have an agenda
  - Get the context
  - Discuss tasks
- Subsequent weekly Customer meetings
  - Delegate tasks
  - Meet internally
  - Make progress in between