# MID-SEMESTER SNAPSHOT DAY (1st Semester Teams)

**EXPECTED OUTCOMES**

**Problem Definition** – All team members have a clear and concise description of the root problem and context. The team can convincingly translate client needs into engineering specifications (including metrics) that can be used to measure how well needs are met.

**Project Learning** - Team documentation and files explain the technology and scientific principles that support your understanding of the problem and stakeholders. All team members can readily explain engineering concepts that underlie their project and describe professional practices involved with client communication, design process implementation, and project management.

**PREPARATION (review display items with lead instructor and graduate student mentor)**

* Project portfolios should be updated to include a synthesis of your project learning and all other first semester deliverables to date
* Bring any existing hardware/software, pictures from client, diagrams, catalogs, etc.
* Make 8.5x11 printouts to create a posterboard that includes things like:
  + Descriptive Project Title
  + Team name, team members, sponsor
  + Objective statement (1-2 sentences)
  + Design Goals/Deliverables
  + Value proposition
  + Table of product requirements (customer needs, requirements w/ target values)
  + Documentation of project learning such as literature review, product  
     dissection, calcs, experiments, empathetic studies
  + Concept development to date (sketches, CAD, pictures, prototyping)
  + Plan/schedule for project completion (milestones & dates)
  + Project budget

**DELIVERY (on Snapshot Day)**

* BUSINESS ATTIRE – button up shirts, slacks, and interview style grooming.
* Advance clean up around your work/display area and early set-up at your location.
* Make logbook entries with lessons learned about your project and project actions other teams are taking that you want to emulate.

# MID-SEMESTER SNAPSHOT DAY (2nd Semester Teams)

**EXPECTED OUTCOMES**

**Detailed Design** – The team has created a detailed design document which is composed of engineering drawings and fabrication plans suitable for interpretation by a third party.

**Data and Prototypes** – The team has designed, built, and tested relevant prototypes of the detailed design.

**PREPARATION (review display items with lead instructor and graduate student mentor)**

* Project portfolios should be updated to include documentation of your detailed design.
* Bring any in-progress hardware/software, drawing packages, pictures of fabrication activities, results from experimentation, etc.
* Make 8.5x11 printouts to create a posterboard that includes:
  + Team name, team members, sponsor
  + Updated objective statement (1-2 sentences appropriate for general audience)
  + Updated product requirements (customer needs, requirements w/ target values)
  + System Design (diagrams/flowcharts/solid model)
  + Documentation of your detailed design (detailed drawings, renders, data sheets for purchased components, etc.)
  + Manufacturing process/results
  + Design validation plans (DVP)
  + Failure modes and effects analysis (dFMEA)
  + Sustainability assessment
  + List of unresolved issues and your plan for attacking these.
  + Value proposition (with payback calculation if appropriate)
  + Plan for project completion (milestones & dates) and budget
* Supplement your poster with laptop show/tell, if appropriate.

**DELIVERY (on Snapshot Day)**

* BUSINESS ATTIRE – button up shirts, slacks, and interview style grooming.
* Advance clean up around your work/display area and early set-up at your location.
* Make logbook entries with lessons learned about your project and project actions other teams are taking that you want to emulate.