**What does DESIGN mean?**
- solving problems
- answering questions
- characterization
- modeling/calculation
- iterative design
- analysis
- recommendations for optimization
- evaluation
- development
- synthesis
- process

**What are the BENEFITS to our company?**
- students provide **insight** into existing problems
- students and faculty mentor offer **specialized knowledge**
- students provide **man power and time** for projects that may otherwise be put on hold
- engage with students as **potential employees**
- have access to **equipment and expertise** not available at your own site
- **visibility** of your organization on campus
- provides a **gateway for a broader relationship** with MSE

**What have other projects been?**
- **characterization** of material properties and understanding of **direct laser sintering**
- investigating the **corrosion behavior in lead-free solders**
- determining **mechanical properties** of maraging steel produced by **selective laser melting**
- determining dependence of **physical properties** of soluble glasses on synthesis route
- **rapid prototyping** of polyactic acid crystal models

**What should we do if we are interested?**
- Contact: Martha Selby
  mselby@iastate.edu
  515-294-0195
- fill out a ‘Project Information Sheet’ with contact information, project description, resources, deliverables, interest area, and financial commitment
- Determine project objectives and criteria

**Recent senior design business partners include:**
- Emerson/Fiser Controls
- Metalcraft, Inc.
- Honeywell
- 3M
- Ervin Industries
- Ozonics Hunting
- SAFI-Tech
- John Deere
- Rockwell Collins
- Stellar Industries
- Wilson Trailer

**How does it work?**
- This is a 2 semester course, offered in both fall and spring semester.
- It is an industry sponsored project.
- There are teams of 3-4 students and 1 faculty mentor.
- Students work 10-15 hours/week or 500-700 student hours in total.
- A $1000 financial commitment as a reimbursement for itemized costs is required and company approval is required before a group can go over that dollar amount.
- Companies must provide resources such as samples, supplies, or specialized equipment.
- An engineer within the company should be assigned as primary point of contact.
- Consider student travel to the company or a company visit to Iowa State University.
- Companies should provide deliverables such as reports/analyses, prototypes, models, data, etc.
- A non-disclosure agreement form is available in cases where confidential information is handled.
- There is also an agreement to assign any intellectual property to your company as desired.