# ME4182 / MSE4723
## Summer 2020

You are part of an experiment to create the most high-profile, rewarding, expensive, hard-working course at Georgia Tech and a model for design education at engineering schools worldwide

http://mecapstone.gatech.edu/

# What is Capstone Design all about?
# Goals for the course:

1. Identify an unmet need
   ### WHAT'S THE PROBLEM?
2. Invent/design something useful
   ### CREATIVITY, INNOVATION
3. Apply your analytical knowledge to design it
   ### ANALYTICAL SKILLS
4. Prove it will work (Simulate it, build it, test it, virtually, physically)
   ### MODELING AND HANDS-ON
5. Document your process (reports, presentations)
6. Demonstrate it at the Expo
7. Give to sponsor for use or patent it and start company

# Project Types

1. External company sponsored

2. Faculty Research Lab

3. Your own idea!

- For types #1 and #2, check out currently available projects (more are being added) here: http://mecapstone.gatech.edu/marketplace.

- For guidance on how to use the online portal, see this: http://mecapstone.gatech.edu/howto

- Examples of past projects are here: http://expo.gatech.edu/projects/

# Elements of a Good Student Project

- What's the problem?
  - NOT "We're going to design a better mousetrap"
- Creative/Innovative - not just an assembly of off-the-shelf parts (room for novelty)
- Lends itself to analysis
- Sufficient scope for senior design
- Team should have or acquire the skills to complete the project.
- Produce a proof-of-concept and learn from it
  - Design revisions
  - Validate design decisions

# How to form a team?

- Team sizes are 4-6 students per team. There are 60 MEs and 3 MSEs registered as of 4th May.

- Find team members

  – Based on project interest on https://mecapstone.gatech.edu/marketplace

  – Based on skills and experience on https://mecapstone.gatech.edu/marketplace

  – Self-identified/assembled during lab meeting on 12th May.

# How are teams matched to projects?

- Two avenues
  - Bid for a sponsored project
  - Propose your own project
- Teams are matched to projects and to faculty (see the FAQ [here](#))
- Even if you plan on bidding for sponsored projects, should have a "Plan B (C, and D)" project idea of your own

# REMINDERS

1.  Form your team ASAP!
    – Visit http://mecapstone.gatech.edu/marketplace to see the roster and find team members.
    – You may also use the class Piazza (via CANVAS). You can post about yourself and what you are expecting from team members here: https://piazza.com/class/k8nt6epa8co5de?cid=6.

2.  Attend 1st Studio on Monday, 11th May at 5:00 pm on Bluejeans.com. The link is posted on CANVAS.

3.  Attend 1st Lab session on Tuesday, 12th May from 12:30pm with **your project ideas**. You will only have this session as an interactive opportunity to present your project ideas to the class!