SPRING 2006: COURSE OFFERING

ME 196Q: PRODUCT DESIGN AND 3D PARAMETRIC SOLID MODELING

Instructor:
Prof. Yong S. Suh
Department of Mechanical Engineering

Description:
Basic theories of 3D parametric solid modeling technology and their applications to the design of various mechanical products primarily using SolidWorks computer-aided design (CAD) software package.

The course will cover:

Theory:
- Various schemes for 3D solid model representations
- Feature-based design
- Parametric design and constraints
- History-based design
- Curve and surface representations

Practice:
- Part and assembly modeling
- Drawing creation
- Surface design
- Sheet metal design
- VBA Macro programming for automation
- Plastic part design (Mold design)
- Weldment design
- Design analysis (FEA, Mechanism analysis)
- Photo-realistic visualization

Time:
Lecture: TR 8:00 am - 8:50 am
Laboratory: TR 9:00 am – 10:15 pm

Prerequisites:
ENGR 6, ME 115 (or MET 166), ME 175 (or MET 173)