

# Engineering Design (공학설계) (Fall 2016)

**Instructor:** Prof. Sung-Min Lee (sungminlee@kookmin.ac.kr)

## **Lecture Description:**

This class will provide the fundamental background of practical engineering management to junior students who major the field of the advanced materials engineering. The items covered in this class are engineering communication, ethics, intellectual property rights, elemental fabrication process, and properties of various types of materials. After the course, students will be able to build a solid foundation for their successful major.

**Text Book:** Engineering Design (Editors: George E. Dieter, Linda C. Schmidt)

**Grading:** Term project (60%), Assignments (30%), Attendance (10%)

**Lecture Hours:** 12:00 ~ 13:15, Thursday (#228, Engineering Bldg.)  
16:30 ~ 17:45, Friday (#228, Engineering Bldg.)

**Office Hours:** 13:00 ~ 15:00, Monday/Wednesday (#537, Engineering Bldg.)

## **Lecture Schedule:**

- Week 1: Introduction to Engineering Design
- Week 2: Team Work & Collective Intelligence
- Week 3: Understanding of Engineering – Displays, Photovoltaics
- Week 4: Problem Definition & Need Identification
- Week 5: Team Behavior and Tools
- Week 6: Gathering Information
- Week 7: Intellectual Properties
- Week 8: Interim Presentation of Term Projects
- Week 9: Presentation Skills
- Week 10: Concept Generation
- Week 11: Concept Generation Model - TRIZ
- Week 12: Technical Writing / Engineering Jobs
- Week 13: Final Presentation of Term Projects
- Week 14: Final Presentation of Term Projects
- Week 15: Final Presentation of Term Projects
- Week 16: Understanding of Engineering – Wearable Electronics