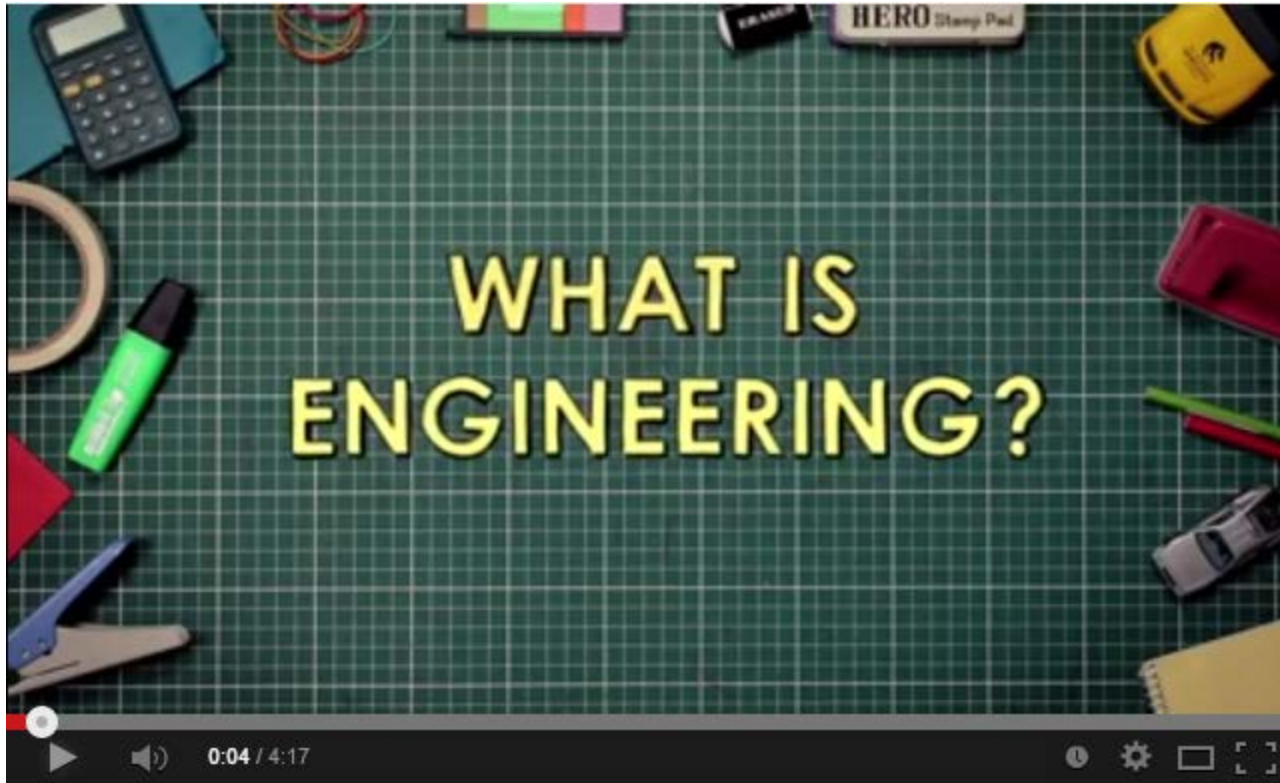# Cat 12
Engineering Science

28 Mar 2013

What is Engineering?

What is Engineering?

Engineering combines the fields of science and math to solve real world problems that improve the world around us.

What really distinguishes an engineer is his ability to implement ideas in a cost effective and practical approach. This ability to take a thought, or abstract idea, and translate it into reality is what separates an engineer from other fields of science and mathematics.

http://whatisengineering.com/

Cat 12 Engineering Science

- Problem solving project
- Real world problem
- Knowledge of Math and Science

Requirements

- Oral Presentation of projects during Prelim, Semi-finals and finals(if applicable).

- Video presentation on learning points for the Engineering Science project.

- Group Web report

- Individual reflection

- Individual performance

Presentation

- **Prelim (5% or 10%)**
  - Project details (max 30 marks)
- **Semi (35%)**
  - Project details (max 60 marks)
  - Oral presentation (max 15 marks)
- **Finals (15%)**
  - Project details (max 70 marks)
  - Oral presentation (max 15 marks)
  - Video presentation (max 15 marks)

Presentation Rubrics

- Prelim
  - Problem identification and definition
  - Information gathering on problem and current situation
  - Identification and definition of solution design

Presentation Rubrics

- Semi-finals
  - Problem identification and definition
  - Information gathering on problem and current situation
  - Identification and definition of solution design
  - Application of specific content knowledge in solution design
  - Testing/ Implementation of solution design
  - Analysis of the solution design based on testing/ implementation process

Presentation Rubrics

- Finals
  - Problem identification and definition
  - Information gathering on problem and current situation
  - Identification and definition of solution design
  - Application of specific content knowledge in solution design
  - Testing/ Implementation of solution design
  - Analysis of the solution design based on testing/ implementation process
  - Implications and recommendation

Video Presentation

- Focus on learning points for Engineering Science project
- Compulsory for all groups
- Deadline for submission (15 Aug)
- 5 – 8 mins in duration
- Rubrics
  - Content
  - Organisation
  - Creativity & Elements of Design
- Training dates
  - 25 Apr (Video tapping:- LT2, everyone)
  - 16 May (Video editing:- Computer Lab, 1 or 2 pax/team)

Other requirements for IS

Assess by your own mentor

- Group Web reports (IS 15%)
  - Compulsory for all teams
- Individual Online Reflection (IS 15%)
  - Compulsory for all students
- Individual performance (IS 10%)
  - For all students

Expectations

- Work closely with your mentor

- Be committed to your project

- Be personally and socially responsible

- Be respectful to your peers, your mentor and especially your external mentor

Enjoy your **learning** journey for your Engineering Science project!