

FILOSOFIA A L'ENGINYERIA

Codi: 51592

Professor coordinador: Manel Lis Arias

Altres professors: Javier Cañavate, Santiago Forcada

Departament: Enginyeria Química

Centre docent: EU d'Enginyeria Tècnica Industrial de Terrassa

Objectius de l'assignatura:

The course is designed to serve:

- as a uniting framework for all engineering domains
- as a bridge between engineering, social science and the humanities
- to strengthen the critical, reflective, and socially responsible dimension of engineering
- to understand, reflect upon, and transcend the engineering culture in its function as an internal integrator and an external segregator
- as a framework for improving interdisciplinary collaboration
- to promote the formation of a historically founded engineering identity
- to make engineering studies more attractive to prospective students – especially women.

The Objectives of the Course

At the end of the Course, students should:

- have knowledge of and ability to recognize and apply metadisciplinary frameworks suitable for reflection on engineering and technology;
- be able to recognize and analyse the historical, philosophical, ethical and social aspects of their future professional practice.

Programa de l'assignatura: (breu descripció)

The course is composed of 3 major themes,:

1. The historical and philosophical foundation of engineering
2. Engineering ethics
3. Engineering in an industrial and global context

Idioma de treball: Anglès, Català, Castellà

Metodologia: Classe magistral, treball en grup, estudi de textos individual, treball individual. Seminaris. Treball en xarxa.

Course Organisation:

Lectures	15%
Individual study	30%
Project work	25%
Preparation	20%
Assessment	10%

Sistema d'avaluació: Avaluació continuada

Coneixements previs recomanats:

- Preparation, regular class attendance and participation in class activities.
- Students commit themselves to oral presentations of parts of the course materials and to chairing class discussions.
- Participation in group project.

Material docent:

Basic Course Materials:

Christensen, Steen Hyltdgaard, Meganck, Martin and Delahousse, Bernard (eds.), 2007: Philosophy in Engineering. Academica. Aarhus.

Christensen, Jens, Henriksen, Lars Bo and Kolmos, Anette (eds.), 2006: Engineering Science, Skills, and Bildung. Aalborg Universitetsforlag Aalborg.

Goujon, P. & Hériard-Dubreuil, B. (eds). (2001). Technology and ethics. A European quest for responsible engineering. Peeters. Leuven.

Harris, Pritchard & Rabins, Engineering Ethics: Concepts and Cases (Book + CD-ROM)

Bibliografia recomanada:

Christensen, Steen Hyltdgaard, Meganck, Martin and Delahousse, Bernard (eds.), 2007: Philosophy in Engineering. Academica. Aarhus.

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Altres referències i materials:

Internet sites like: <http://onlineethics.org>