Introduction to energy issues and transversal and societal aspects

ECTS credits
3 credits

In brief

Course langage: French

Presentation

Learning objectives

- To become aware of the importance of the sustainable energy issue for society.
- Develop a general culture around the theme of energy.
- To know the economic mechanisms linked to the energy sector.
- Discover, through industrial visits, the reality of energy installations.

Description of the programme

- Introduction to the concept of energy.
- Classification of energies.
- Energy deposits and resources.
- Geopolitical importance of the different energy resources.
- Economic mechanisms and models specific to the energy sector.
- Industrial visits: CEA Cadarache, hydro-electric plant.

Generic central skills and knowledge targeted in the discipline

C1: Central engineers create value through scientific and technical innovation.
C2: Central engineers master the complexity of the systems and problems they encounter.
C3: Central engineers manage programs.
C4: Central campus engineers manage in an ethical and responsible manner.

C5: Central campus engineers have a strategic vision and know how to implement it.

How knowledge is tested

Continuous assessment and supervised homework

Bibliography

A.V. da Rosa, Fundamentals of Renewable Energy Processes, Academic Press, 2012

Teaching team

- Thierry Gaidon
- Pascal Denis
- Nicolas Clootens

Total des heures		**34h**
CM	Master class	30h
TD	Directed work	4h

Useful info

Name responsible for EU

Lead Instructor

Thierry Gaidon
thierry.gaidon@centrale-marseille.fr