ESIROI
ÉCOLE D'INGÉNIEURS
UNIVERSITÉ DE LA RÉUNION

DEPARTMENT : *BE*
SEMESTER : *S5*

IDENTIFICATION

Course code : E3BE5QE1
ECTS : 1

DURATION

Lectures :	2
Tutorial classes :	6
Labs :	0
Total :	8

Project :
Personnal work :

ASSESSMENT

1 continuous assessment grade

TEACHING MATERIALS

Course materials

LANGUAGE

English

CONTACT

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UE : UE5.2-QEB

COURSE : Energy and climate context

SCOPE OF THE COURSE

OBJECTIVES

The objective of this course is to understand the technical and economic challenges of the energy sector, to know the systems for mass energy production and distribution.

COMPETENCE AND SKILLS

Understand the technical and economic challenges of the energy sector, Basic knowledge of mass energy production and distribution systems.

PROGRAM

Regional, national and international political context :

— Réunion Island Climate Energy Plan and Agenda 21
— Grenelle I and II
— SRI/S3 and European H2020

Energy markets and energy policy :

— Coal, oil, natural gas, electricity, renewable energies
— Other contractual and commercial aspects of energy
— Examples of district heating networks
— National energy policy mechanisms
— Territorial energy policy strategy (Agenda 21, local authorities, etc.)

Conventional electricity production systems : thermal and hydraulic. Electricity distribution networks. Supply-demand balance. Constraints of production and distribution management in an island context (non-interconnected). Energy mix with an increasing share of renewable energy production.

BIBLIOGRAPHY

Bernard CHABOT ; The new wind energy pricing : genesis, description and first analysis ; Revue de l'énergie ; no. 528 ; 2001 Bernard CHABOT ; Some strategic conclusions drawn from an economic analysis of wind energy based on simple and innovative methods and tools ; Entropie ; no. 230, pp. 54-62 ; March 2001

REQUIREMENTS