

Optimization of energy system



En bref

- > **Langues d'enseignement:** Anglais
- > **Méthodes d'enseignement:** En présence
- > **Forme d'enseignement :** Travaux pratiques
- > **Ouvert aux étudiants en échange:** Oui

Présentation

Description

- * Semester 9
- * Duration : Within one semester
- * Type: Mandatory
- * Student workload: Lecture (CM): 12 hours, Tutorials (TD): 9 hours
- * Applicability: SOLEM course only
- * Teaching and learning method : seminar, case studies, discussion
- * Module examination: 1 written exam (100%)

Responsible person for the module: Pierre OUEDRAOGO, Doctoral researcher at French Environment and Energy Management Agency (ADEME), IREG laboratory, IAE, USMB

Ph.D in economics - Research fields: Circular Economy, Repair, Reuse, Recycling, Life Cycle Assessment, Public Policies, Electrical and Electronic Equipment

Thesis: Levers of the circular economy : are they complementary? [Personal Website](#)

Objectifs

Major intended learning outcomes:

Upon completion of the module students will:

- * understand how a firm makes cost-minimizing decisions and how its cost varies with its output.
- * have learnt how a competitive firm chooses its output in short and long term.
- * be able to apply the theory of microeconomics in energy system.
- * understand and identify the main differences between the different markets form.
- * have learnt how oligopolistic firms decide on output and prices.
- * understand why Cartels rises and what successful cartelization require?
- * be able to make analysis of cartel pricing

Heures d'enseignement

| | | |
|----|-----------------|----|
| CM | Cours Magistral | 9h |
| TD | Travaux Dirigés | 9h |

Pré-requis obligatoires

Admission to 2nd semester

Plan du cours

Content of the module:

- * Introduction: General context and course outline
 - * Chapter 1: The Theory of the Firm
 - * Chapter 2: The Firm in Perfectly Competition Market
 - * Chapter 3: Market Power: Monopoly and Monopsony
 - * Chapter 4: Monopolistic competition and Oligopoly
 - * Chapter 5: The Cartels
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Bibliographie

Textbooks:

- * Roberts S. Pindyck and Daniel L. Rubinfeld «Microeconomics» – 8th edition (The Peason series in economics)
- * Jean-Pierre Hansen, Jacques Percebois « Energie#: Economie et Politiques#» 3ième édition (deboeck)

Websites:

- * <https://www.bbc.com/news/business-61188579>
- * https://www.francetvinfo.fr/monde/environnement/cop/cop28-les-pays-exportateurs-de-petrole-realisent-qu-ils-perdent-le-controle-analyse-un-participant-apres-la-lettre-de-l-opep-contre-un-accord-sur-la-sortie-des-energies-fossiles_6233085.html

* <https://www.geo.fr/geopolitique/quest-ce-que-lopep-organisation-des-pays-exportateurs-de-petrole-214045>

Infos pratiques

Lieux

› Le Bourget-du-Lac (73)

Campus

› Le Bourget-du-Lac / campus Savoie Technolac