

IDENTIFICATION

Course code : E3AG6RD5
ECTS : 1

DURATION

Lectures : 2
Tutorial classes : 6
Labs : 8
Total : 16

Project :
Personnal work :

ASSESSMENT

Final exam, report grade, practical work
report grade

TEACHING MATERIALS

Course, TD and TP materials provided

LANGUAGE

English

CONTACT

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UE : UE6-R

COURSE : Eco-design

SCOPE OF THE COURSE

OBJECTIVES

- Understand environmental issues related to the agri-food industry
- Understand the origins of current environmental impacts
- Understand action levers using eco-design

Objectives : The engineering student understands the challenges of sustainable development. They are familiar with various eco-design solutions and the regulatory framework related to eco-design. They can integrate sustainable development concepts when developing a formulation or product innovation project, including its packaging.

COMPETENCE AND SKILLS

Develop a simple specification sheet based on predefined constraints (Nutri-Score, anti-waste law, etc.) Formulate and transform a product Understand scientific and technical resources in English

PROGRAM

- Impact of the agri-food industry on the environment (introduction : urbanization, intensive livestock farming, major challenges for the industrial sector, societal issues, health aspects)
- Regulatory context : scope of application
- Environmental labeling and indicators (Grenelle Laws 1 and 2)
- Eco-design solutions (at consumption and production levels)
- Drivers and barriers to eco-design today
- Focus on eco-design of packaging (packaging development stages, environmental impacts related to these stages, how to limit these impacts, understanding the 3Rs (Reduce, Reuse, Recycle...) and their limits, integrating eco-design into packaging development)
- Practical work (linked to LCA) : Eco-design practical work using LCA software applied to packaging

BIBLIOGRAPHY

IDEONIS - moodle ecotrophelia Lexicon of eco-innovative project management : <http://fr.calameo.com/read/004835995a022b362ac5d> Techniques de l'ingénieur

REQUIREMENTS

Basic knowledge in quality and food analysis Basic knowledge of packaging functions