



SPRING SEMESTER (M1.2/14.8)

LIFE AND FOOD PROCESSING ENGINEERING

LILLE CAMPUS

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Prerequisites

- Bachelor's Level - materials sciences, heat transfer, project management, design, methods and industrial organization concepts

Note that as lectures and case studies for industrial partners are mostly conducted in French, having a good level of French is recommended.

Assessment

- Regular progress reports and consultation
 - Conference and practicals reports
 - Technical and project reports
 - Project oral and written presentation

Partners

Partner companies who deliver lectures/conferences or mentor case studies.

Gecco / Bonduelle / Lesaffre / Laiterie Bailleul / Delacre / Leroux / Roquette / L'Oréal / les enfants de Jean Bart / Charles violette / Gepea / UCCS / Junia ISA / Lotus

OBJECTIVES

- Acquire knowledge in food processing, cosmetics industry and environmental assessment
- Initiation to research domain: biomass recovery and valorization

TARGET PROFESSIONS

- Agri-food process engineer
- Cosmetic process engineer
- Environmental engineer

PROGRAM

Lectures/Conferences

Mainly held by industry partner representatives:

- Understanding methods, production, hygiene, safety, quality
- Industry insights: experiences, problem situations
- Company visits

Food processing methods

- Study of industrial processes and equipment for transformation and preservation

Hygiene and quality

- Quality systems: quality assurance, quality control and Hazard Analysis Critical Control Point (HACCP)

Maintenance & Industrial Organization

- Industrial performance

Environment

- Eco-design of a product
- Sustainable development on a processing chain

Research initiation

- Valorization of biomass: innovative technologies, materials, energetic

Practical & case studies

- Brewing beer
- Food processing engineering

Typical project(s)

Mainly with industrial customers:

- Study of an industrial camera on a waffle line production
- Implementation of tools for monitoring and standardizing beer production and hygiene and safety
- Energy optimization of a production plant

Competencies

- Acquire competencies in life and food processing: risks, problems, solutions
- Environmental awareness
- Research awareness
- Carry out a scientific approach to understand and meet customer needs