

Courses open to International Exchange students at AgroSup Dijon

**Food Science
Engineering programme
*Autumn Semester Level 5***

LEVEL 5 / 1 st semester		FOOD SCIENCE PROGRAMME : <u>MOST IN FRENCH LANGUAGE, 1 SPECIALIZATION IN ENGLISH**</u>		
Name of Teaching Unit	Module	Description	Total hours per student	ECTS
Core courses	Engineer and Management 1 (Communication, Management)	To strengthen students': self-knowledge, ability to manage relationships with others and position themselves in a group. To allow them to develop their capacity to grow in influence over individuals and situations. To strengthen their preparation for a recruitment procedure and their first job.	28	5
	Professionalisation module (optional)	A customized training module in order for each student to acquire additional training in a specific area.	24	
	French for foreigners		15	
	Engineering and Management 2 (ethics, deontology, creativity, innovation)	Introduction to multidimensional complexity of the role of an engineer in a managerial position. The focus is on possible conflicting areas between procedures, instructions and operational feasibility. The module is designed to meet the needs of engineering students just before they embark on their final internship.	10	
Engineer Project	Project Management	To carry out group work on a subject-question originating from a professional body outside of AgroSup Dijon. This work is to be done on topics related to the specialization chosen by the student (see below).	140	9
<i>Specializations</i>	<i>1 specialization module (see details below) to be chosen between:</i> - Food Production : Innovation and durability (PROC'IDé) - Sustainable Food Formulation : Innovation, Choice of Ingredients, Energy, Nutrition, Trade challenges (SUFFICIENT) - Nutrition, sensoriality, Nutrition, Health, Security (NutriSenSas) - Microbial Biotechnologies and Food Fermentation (BIOMIFA) - Food Pack - Strategies and Organization of Agriculture and Food Processing Industries (SOFFEEA)		210	16
TOTAL			427	30

FOOD SCIENCE SPECIALIZATIONS - LEVEL 5, SEMESTER 1

Food Production: Innovation and durability (PROC'IDÉ)

The objective is to train:

- Specialists in production and transformation processes for the food processing industry and also for cosmetic, pharmaceutical and biotechnology industries.
- Innovation professionals in processes for the development of sustainable food processing production systems.

The training is based on:

- 2 modules laying the scientific and technical basis for the conception of processes and management of industrial systems
- 1 module on project management and communication
- 1 module on R&D methodology
- Numerous field visits
- English courses
- And a final project sponsored by professionals

Sustainable food formulation: innovation, choice of ingredients, energy, nutrition, trade challenges (SUFFICIENT) *In English*****

This course aims at training engineers able to work in food of cosmetic companies in the following positions:

- Research & Development (formulation, ingredients sourcing, reverses formulation...)
- Product management
- Marketing and project management.

The course is based on learning by doing: students will acquire in-depth expertise in food formulation by producing prototypes at lab scale, and pilot scale if possible which enable sensory analysis and by practicing English in a professional context.

Nutrition, sensoriality, nutrition, health, security (NutriSenSAs)

The objectives are to provide future managers in the Agri-food sector with in depth competencies in nutrition, security and consumers' behavior thus enabling them to create relevant and ethical food innovations. The course is based on the following modules: biological determinant for dietary behavior, food and health, from physiology to nutritional formulation, innovation strategy, management and communication in food processing industries, emotions and food.

Microbial biotechnologies and food Fermentation (BIOMIFA)

This course aims at training managers in food processing and biotechnology industries and providing them with all the necessary competences in food innovation and biotechnology. It mainly relies on the "milk" sector, but also on the "fermented meat", "panification" and "fermented beverages" sectors. The course is based on 5 modules: current sectors in fermented food and beverages, food microbial biotechnology, risk management, R&D project, innovation: context, monitoring, examples of innovation.

Food pack

The objectives are to train future managers in the specific features of food packaging, from production to waste management. The course is organized around 6 modules: packaging sector: picture/stakes/actors, materials, production and conditioning, sanitary security and regulation, Design, graphic design and communication support Marketing, innovations and consumer habits Eco conception and waste management.

Strategies and organization of agricultural and food processing industries (SOFFEAA)

The aim of this course is to provide managers with a capacity for managing innovation and development projects for private companies, professional organisations and sectors in the fields of production, transformation and distribution of agricultural and food products.

The course is structured around courses (economy, sustainable development economy, agricultural policy and rural development including a field trip to Brussels, quality management, innovation management, strategic management, project methodology) and a professional project.