

SPECIALIZATION SEMESTER

SUSTAINABLE DEVELOPMENT IN FOOD INDUSTRIES

30 ECTS *

From September to December



Apply sustainable development in food production units.

The students will learn to put together technical knowledge (food science, production management, energy saving,...) and a holistic view on the food production chain including management, profitability and social considerations. Students will acquire this knowledge from lectures, personal research work and literature, external conferences on hot topics (e.g. eco-conception,...) and apply them within real-life group projects proposed by food organisations.

At the start of the module students will participate in a 4-day study trip in a European country to compare European approaches of sustainable food processes and in a 2-day intercultural team building session.

Teaching is given by professors from ISARA-Lyon and other European universities but also by advisors and professionals from the food sector, in order to provide the students with a variety of operational points of views on the subject. The objective is to provide openness on international food issues including country-wise and cultural differences.

Based on the knowledge and skills acquired, the students organise debates on various hot topics. In this respect, they should be careful to cover the wide spectrum of each issue (e.g. economic, environmental and social aspects of the question). Examples of topics debated: Can we feed the world with insects? The history and perspectives of blue-collar work in the food industry...

Throughout the module, creativity tools will be used for problem solving or business creation perspectives.

Total of ECTS	Contact hours						Project work
	Lectures	Tutorials	Practicals	Field trips	Supervised work	Evaluation	Project work
ECTS : 30	120.00 h	43.50 h	13.50 h	42.50 h	62.00 h	7.00 h	143.00 h

Personal work = Contact hours x2

* ECTS= European Credit Transfer System

Detailed courses and ECTS

Intrapreneurship and sustainable development in food industries *	DEMONTE Valérie	Lectures	Tutorials	Practicals	Field trips	Supervised work	Evaluation	Project work
		51.00 h	15.50 h	-	-	51.00 h	4.00 h	119.00 h
ECTS : 15.00								

OBJECTIVES:

- Understand the stakes of sustainable development and apply them to the food company's strategy
- Analyze the sustainability of the food chain in an international context.
- Be a creative force and a proactive / leading stakeholder in his/her organization (intrapreneurship)
- Be able to design, implement and assess development projects
- Understand and implement the strategic management items at various levels of the organization, and translate them into operational action plans.

PROGRAMME :

- Strategic management, efficiency of the organizations
- Project management, prospective, evaluation/assessment methods
- Management accounting
- Transversal management
- Sustainable development, stakeholders and continuous improvement
- Analysis of the main food chains and the challenges of sustainable development at global level
- Sustainable development: certification and assessment tools
- Eco-conception

PREREQUISITES:

A Bachelor in Life Sciences with knowledge in the following fields:

- Physics, chemistry, biochemistry
- Chemical or food processes
- Mathematics (basics)
- Notions of economics

Students with a background in nutrition, food/agricultural marketing, agriculture can also be accepted.

TEACHING METHODS:

- Lectures
- Tutorials
- Study trips
- Group projects

EVALUATION METHODS:

Written report on a case study + Oral
Report and presentation on the study trip
Practical work

Food processing and managerial innovation *	DEMONTE Valérie	Lectures	Tutorials	Practicals	Field trips	Supervised work	Evaluation	Project work
ECTS : 15.00		69.00 h	28.00 h	13.50 h	42.50 h	11.00 h	3.00 h	24.00 h

OBJECTIVES:

- Acquire creativity skills and problem-solving tools
- Understand food production and its context
- Be able to manage teams and organizations in an international context and from the perspective of continuous improvement

PROGRAMME :

- Creativity methods and problem solving
- Sociology of the organizations
- Personal development and human resource management (communication, negotiations...)
- Development of a production line in the pilot plant taking into account the economic, legal, social and environmental constraints applicable to the food sector.
- Analysis of varied food production situations

PREREQUISITES:

A Bachelor in Life Sciences with knowledge in the following fields:

- Physics, chemistry, biochemistry
- Chemical or food processes
- Mathematics (basics)
- Notions of economics

Students with a background in nutrition, food/agricultural marketing, agriculture can also be accepted.

TEACHING METHODS:

- Courses and lectures
- Practicals
- Tutorials
- 2 group works
- Debates
- Study trip

EVALUATION METHODS:

Exams:

- written report on a case study
- oral presentations