

UP : S9-SDFI	ISARA5 / S9	Nombre d'heures-élève						
		Cours	TP	TD	Visites	FT	WPP	Evaluation
Sustainable development in food industries *	Sami GHNIMI							
ECTS : 30		110.50 h	19.00 h	40.50 h	60.00 h	79.50 h	143.00 h	7.25 h

ACQUIS DE L'APPRENTISSAGE :

- acquire a clear vision of the challenges at stake in the companies and organizations of the food sector.
- be able to manage teams and develop innovative and sustainable organizations.
- acquire a systemic approach of the organizations and the food chain
- know how to manage professional activities in a sustainable way taking into account the whole market and the various stakeholders.

PROGRAMME :

The semester is entirely taught in English.

It includes 2 teaching units:

UE1: Food processing and managerial innovation

UE2 : Intrapreneurship and sustainable development in food industries

UE : S9-FPMI	ISARA5 / S9	Nombre d'heures-élève						
Food processing and managerial innovation *	Sami GHNIMI	Cours	TP	TD	Visites	FT	WPP	Evaluation
ECTS : 15		63.50 h	19.00 h	15.00 h	56.00 h	22.50 h	24.00 h	2.25 h

Intervenant(s)	Cours	Nb grp TP	TP	Nb grp TD	TD	FT	Nb grp Visite	Visite	Correction
Yan SOUBOUROU	0.0 h	1	19.0 h	0	0.0 h	0.0 h	0	0.0 h	0.0 h
Arnaud ASTA-RICHARD	0.0 h	1	15.5 h *	0	0.0 h	0.0 h	0	0.0 h	0.0 h
Naïma ADNANI	0.0 h	0	0.0 h	1	1.0 h	0.0 h	0	0.0 h	0.0 h
Valérie DEMONTE	9.0 h	0	0.0 h	0	0.0 h	0.0 h	1	0.0 h	0.0 h
Christian PINEAU	9.0 h	1	0.0 h	1	4.0 h	4.0 h	0	0.0 h	0.0 h
Sami GHNIMI	4.0 h	0	0.0 h	1	0.0 h	14.0 h	7	56.0 h	2.0 h
Sylvie PIERRE	3.5 h	0	0.0 h	0	0.0 h	0.0 h	0	0.0 h	0.0 h
VACATAIRE	38.0 h	0	0.0 h	1	10.0 h	4.5 h	0	0.0 h	0.0 h

ACQUIS DE L'APPRENTISSAGE :

This course gives an overview of the holistic approach in sustainable food processing via the consideration of the total value chain. Food production and management tools, food quality systems, occupational health, food crisis management and life cycle assessment will be introduced. The course consists of formal lectures, projects, tutorials, practical classes in the food pilot plant and study tour in Italy for one week to visit agro-food companies in Parma and Torino regions.

Upon the completion of the course, the students will be able to:

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

PROGRAMME :

Part 1: Management tools and creativity in food manufacturing

- Problem solving
- Computing tools and techniques used in food production
- Approach to eco-conception : life cycle assessment

Part 2: Management in production environment

- Lean management in food manufacturing
- Production and manufacturing management
- Management and industrial strategies
- Management of investment
- Food value chain : Dairy case study

Part 3 : Quality, health and safety

- Food quality systems
- Occupational health
- Food crisis management

MODALITES PEDAGOGIQUES :

The course consists of formal lectures, tutorials, entrepreneurship project, practical classes in the food pilot plant and study tour in Italy and also field trips to French food companies. The food pilot plant offers a range of food technologies for process development and upscaling. During the practical classes, students have to optimize production parameters on a real production trial. During the study tour, students explore the challenges and efforts devoted to sustainable development in 5 agro-food companies with different scales. Students have also to write a review paper on a specific topic related to sustainability in the food chain.

PREREQUIS :

A Bachelor in Life Sciences with knowledge in the following fields: physics, chemistry, biochemistry, chemical or food processes, notions of economics. Students with a background in nutrition, food/agricultural marketing, agriculture are also enrolled.

EVALUATION :

Libellé épreuve	Forme	Nature	Date / Période	Durée	Coef.
SDFI-FPMI-Entrepreneurship - group	Ecrit avec documents	Rapport		--	34.00 %
SDFI-FPMI-Literature review - group	Dossier	Rapport	Dec	2.00 h	33.00 %
SDFI-FPMI-Practical work - group	Soutenance	Rapport	nov.	0.25 h	33.00 %

DETAIL DES EVALUATIONS :

Exams:

- written report on a case study
- oral presentations
- Literature review

SANTE ET SECURITE AU TRAVAIL :**DEVELOPPEMENT DURABLE :****LIE A L'ETHIQUE :****LIE AU CONTEXTE MULTICULTUREL :**

UE : S9-ISDFP	ISARA5 / S9	Nombre d'heures-élève						
Entrepreneurship and sustainable development in food industries *	Sami GHNIMI	Cours	TP	TD	Visites	FT	WPP	Evaluation
ECTS : 15		47.00 h	-	25.50 h	4.00 h	57.00 h	119.00 h	5.00 h

Intervenant(s)	Cours	Nb grp TP	TP	Nb grp TD	TD	FT	Nb grp Visite	Visite	Correction
Valérie DEMONTE	4.0 h	0	0.0 h	1	4.0 h	8.0 h	0	0.0 h	1.0 h
Sami GHNIMI	13.0 h	0	0.0 h	1	2.5 h	16.0 h	1	4.0 h	2.0 h
Christian PINEAU	6.0 h	0	0.0 h	1	2.5 h	8.0 h	0	0.0 h	1.0 h
VACATAIRE	24.0 h	0	0.0 h	1	14.0 h	0.0 h	0	0.0 h	0.0 h
Yann DEMARIGNY	0.0 h	0	0.0 h	1	0.0 h	8.0 h	0	0.0 h	0.0 h
Caroline LEROY	0.0 h	0	0.0 h	1	0.0 h	8.0 h	0	0.0 h	3.0 h
Béatrice LADO-DIONO	0.0 h	0	0.0 h	1	2.5 h	1.0 h	0	0.0 h	0.0 h
Olivier VALADE	0.0 h	0	0.0 h	1	0.0 h	8.0 h	0	0.0 h	1.0 h

ACQUIS DE L'APPRENTISSAGE :

This course focuses on the strategic management and efficiency of food industries, assessment tools and challenges of sustainable development in agro-food sector. The course consists of formal lectures, core projects with food companies and tutorials.

Upon the completion of the course, the students will be able to:

- 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)
- 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 :

Course Content

1. Pillars of sustainable development
 - Sustainability pillars : environment, social and economic
 - Assessing business profiles
2. Managing sustainable food operations
 - Packaging challenges and opportunities for sustainability; including ISO 18601 requirements
 - sustainable food consumption
 - Waste management
 - Energy and ISO 50001 requirements
 - Supply chain flow management
 - Controlling and financial management
3. Leadership and sustainability
 - Management tools
 - Negotiation skills

MODALITES PEDAGOGIQUES :

The course consists of formal lectures, core projects with food companies and meetings within groups to learn essential strategies and skills for successful negotiation. Students are instructed to work on groups to enhance the team-based learning which is a valuable stepping stone towards future integration of food companies or organizations. In the negotiation meetings, each student plays a role in a 'negotiation' scenario (board of directors in a company) to highlight their negotiation skills and qualities. The core project work, assigned to individual team, provides real life example / issue where students do interact with food companies to explore and develop relevant solutions.

PREREQUIS :

A Bachelor in Life Sciences with knowledge in the following fields: physics, chemistry, biochemistry, chemical or food processes, notions of economics. Students with a background in nutrition, food/agricultural marketing, agriculture are also enrolled.

EVALUATION :

Libellé épreuve	Forme	Nature	Date / Période	Durée	Coef.
SDFI-ISDFP-Core project	Soutenance	Rapport		1.00 h	70.00 %
SDFI-ISDFP-Negotiation meeting	---	Travaux Dirigés		4.00 h	30.00 %

DETAIL DES EVALUATIONS :

- Core project (report and oral presentation) : 70%
- Negotiation meetings : 30%

SANTE ET SECURITE AU TRAVAIL :

DEVELOPPEMENT DURABLE :

LIE A L'ETHIQUE :

LIE AU CONTEXTE MULTICULTUREL :

