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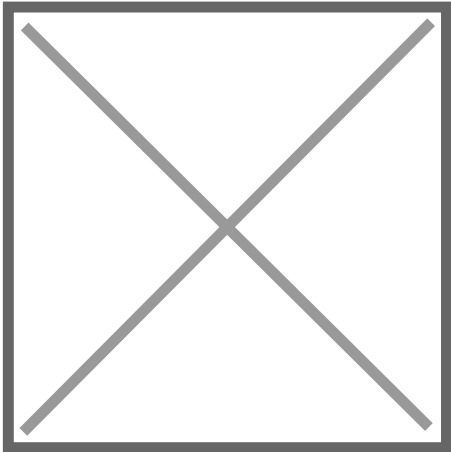
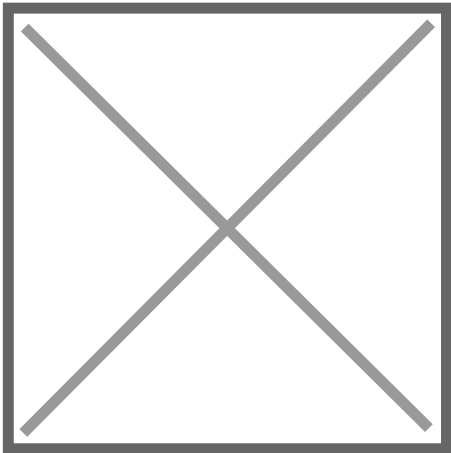
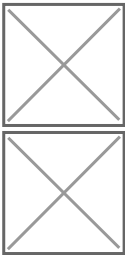
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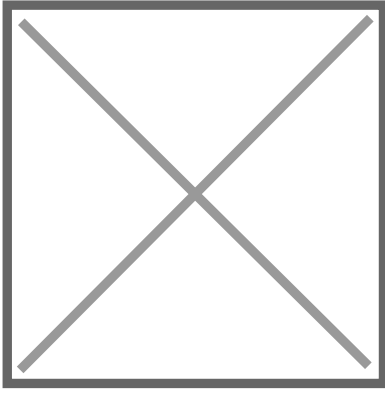
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Add to Compare

M1 FIPDes (Food Innovation and Product Design)





Master's degree

Specialisation Nutrition and Food Science

Enrolment type

Full-time academic programmes

Language(s) of instruction

English

FIPDes is an international 2-year Erasmus Mundus Joint Master in Food Innovation and Product Design.

www.fipdes.eu

To address the challenge of sustainable food production and consumption, FIPDes adopts a cross-disciplinary approach, integrating food science & technology, engineering and entrepreneurship to train international talents developing sustainable, healthy and accessible food solutions for the future generations, at local and global scale.

FIPDes is a two-year interdisciplinary master's degree (M1+M2), with compulsory international mobility.

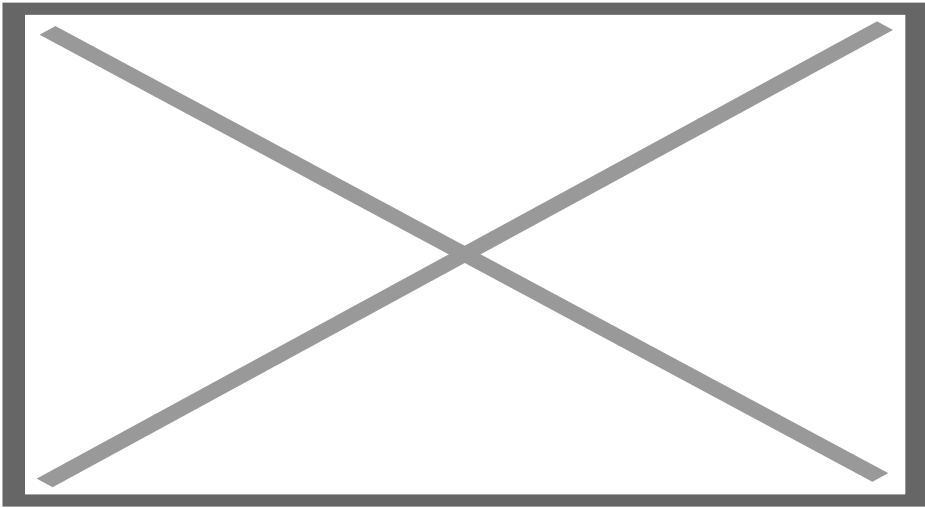
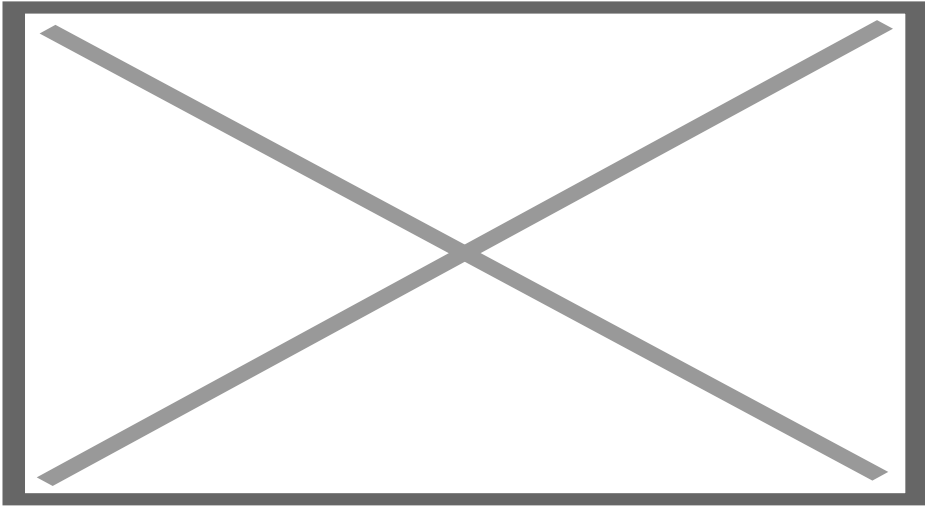
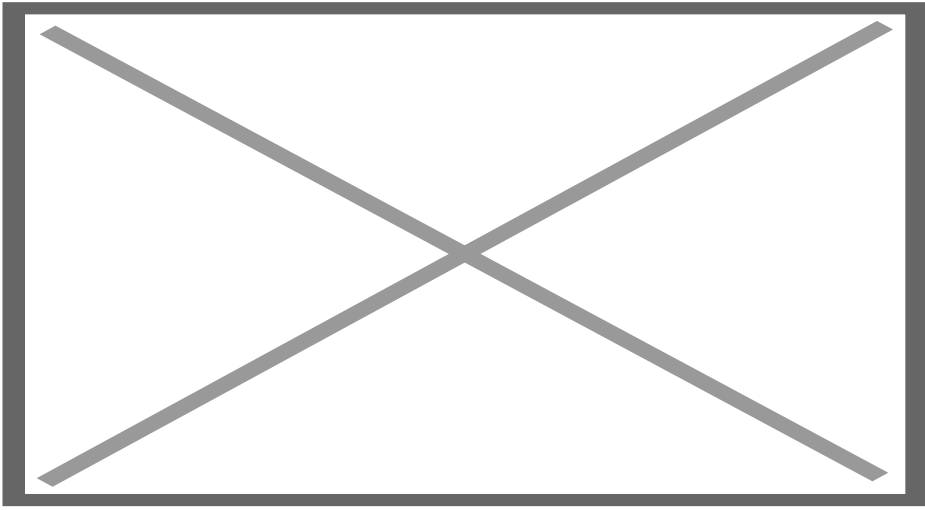
FIPDes is supported by four European universities: AgroParisTech (France), Technological University Dublin (Ireland), University of Naples Federico II (UNINA, Italy) and Lund University (LU, Sweden). The first year provides a solid foundation in food science and technology, sustainability and culinary innovation through courses taught in Paris and Dublin. The second year offers three study tracks in key areas of innovation:

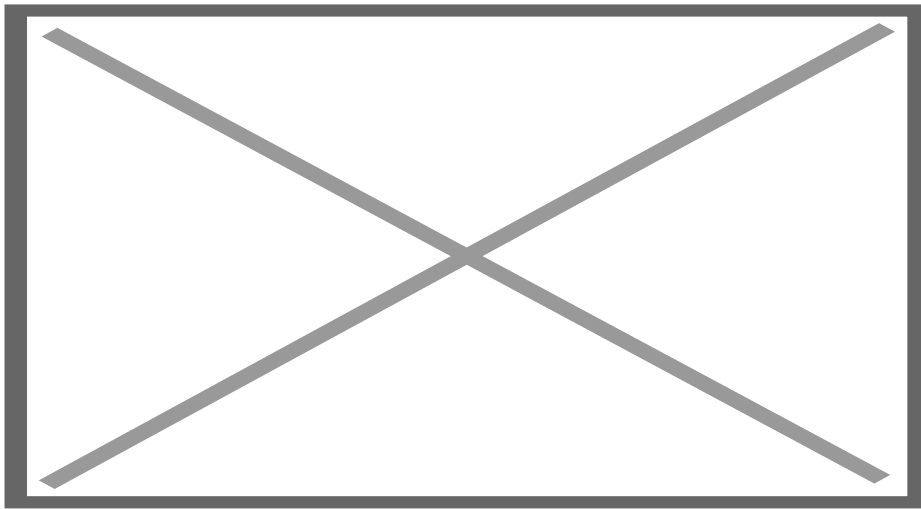
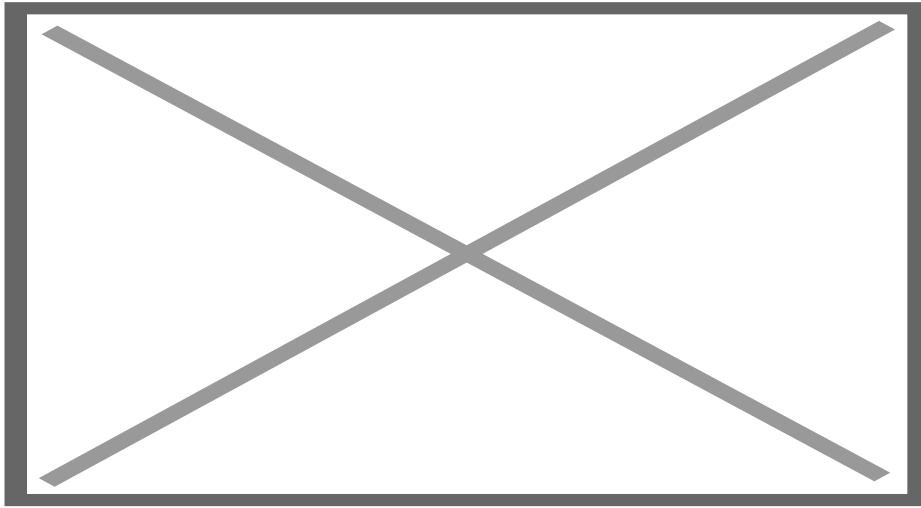
- Food Design & Engineering (AgroParisTech, FR)
- Food Packaging Design & Logistics (LU, SE)
- Healthy Food Design (UNINA, IT)

FIPDes has a dedicated website (www.fipdes.eu) where you can find all the information you need, as well as testimonials on international activities and the careers of former students.

[Télécharger la fiche détaillée](#)

[Apply Now](#)





■ ■

Information

- [Overview](#)
- [Application requirements](#)
- [Schedule](#)

Présentation

Skills

- Integrate and successfully apply knowledge from different disciplines and cultural systems.
- Lead projects in collaboration with various industrial and academic partners.
- Deepen technical skills while exploring creative abilities.
- Strengthen adaptability and entrepreneurial skills.
- Gain international experience and build a global network to prepare for new professional challenges at the local and global level.

- Develop highly sought-after soft skills such as team management, leadership and communication in English.

Objectives

At the end of the first year of FIPDes, students will be able to:

- Understand the scientific, societal and technical challenges of developing sustainable food products in a context of global innovation.
- Successfully integrate and apply knowledge from different disciplines (food science and technology, consumer science, culinary innovation) and different cultural systems.
- Apply technical skills (new product development) and cross-disciplinary skills (intercultural intelligence, creativity, leadership, project management, scientific communication).
- Think critically and scientifically.

Admission

Admission Route

Science and Technology

Capacity

Available Places

25

Target Audience and Entry Requirements

The calendar and application process are available here: <https://fipdes.eu/?FIPDes-application-Calendar-Deadlines>

The selection procedure is available here: <https://fipdes.eu/?Selection-Procedure-52>

- Background: BSc degree or equivalent degree of at least 180 ECTS or equivalent in food science and technology, biotechnology, process engineering, biochemistry, nutrition or food related fields with a number of prerequisites (e.g. chemistry, biotechnology, process technology/engineering, biochemistry, mathematics, statistics) representing at least three years of study from a foreign institute of higher education. Candidates should be interested in a truly international academic experience and aiming for an international career.
- English language proficiency level ("B2 level" according to CEFR, advanced) demonstrated in one of the following ways: TOEFL at minimum level 575 Internet-based TOEFL at minimum level 90 IELTS at minimum level 6.5 Cambridge Certificate of Proficiency (FCE with B2 level, CAE or CPE)
 - or:
 - Students with English as their mother tongue (the copy of passport is needed to prove this)
 - or:

- ## Période(s) de candidature

Supporting documents

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distance learning component
Mathematics	5	1	40	10	10	40	10	10	0
Physics	5	1	40	10	10	40	10	10	0
Chemistry	5	1	40	10	10	40	10	10	0
Biology	5	1	40	10	10	40	10	10	0
Computer Science	5	1	40	10	10	40	10	10	0
Engineering	5	1	40	10	10	40	10	10	0
Business Administration	5	1	40	10	10	40	10	10	0
Health Sciences	5	1	40	10	10	40	10	10	0
Environmental Studies	5	1	40	10	10	40	10	10	0
Humanities	5	1	40	10	10	40	10	10	0
Social Sciences	5	1	40	10	10	40	10	10	0
Interdisciplinary Studies	5	1	40	10	10	40	10	10	0
Elective Courses	5	1	40	10	10	40	10	10	0
Language Courses	5	1	40	10	10	40	10	10	0
Physical Education	5	1	40	10	10	40	10	10	0
Art Courses	5	1	40	10	10	40	10	10	0
Music Courses	5	1	40	10	10	40	10	10	0
Professional Development	5	1	40	10	10	40	10	10	0
Research Methods	5	1	40	10	10	40	10	10	0
Statistics	5	1	40	10	10	40	10	10	0
Writing Skills	5	1	40	10	10	40	10	10	0
Communication Skills	5	1	40	10	10	40	10	10	0
Leadership Skills	5	1	40	10	10	40	10	10	0
Teamwork Skills	5	1	40	10	10	40	10	10	0
Problem Solving Skills	5	1	40	10	10	40	10	10	0
Decision Making Skills	5	1	40	10	10	40	10	10	0
Time Management Skills	5	1	40	10	10	40	10	10	0
Stress Management Skills	5	1	40	10	10	40	10	10	0
Self-Motivation Skills	5	1	40	10	10	40	10	10	0
Goal Setting Skills	5	1	40	10	10	40	10	10	0
Networking Skills	5	1	40	10	10	40	10	10	0
Public Speaking Skills	5	1	40	10	10	40	10	10	0
Writing Skills	5	1	40	10	10	40	10	10	0
Communication Skills	5	1	40	10	10	40	10	10	0
Leadership Skills	5	1	40	10	10	40	10	10	0
Teamwork Skills	5	1	40	10	10	40	10	10	0
Problem Solving Skills	5	1	40	10	10	40	10	10	0
Decision Making Skills	5	1	40	10	10	40	10	10	0
Time Management Skills	5	1	40	10	10	40	10	10	0
Stress Management Skills	5	1	40	10	10	40	10	10	0
Self-Motivation Skills	5	1	40	10	10	40	10	10	0
Goal Setting Skills	5	1	40	10	10	40	10	10	0
Networking Skills	5	1	40	10	10	40	10	10	0
Public Speaking Skills	5	1	40	10	10	40	10	10	0
Writing Skills	5	1	40	10	10	40	10	10	0
Communication Skills	5	1	40	10	10	40	10	10	0
Leadership Skills	5	1	40	10	10	40	10	10	0
Teamwork Skills									

Summer programme

ECTS : 3

Semester: Semestre 2

Detail

Tutored project 30

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

To be established by each student and validated by the course manager.

Learning objectives

The summer programme aims at giving a perspective on different food topics that will complement and strengthen knowledge, understanding, skills and abilities from other courses. A further aim is the improvement of students' soft skills.

Overall organisation

Tutored project

Skills

- Communicate effectively in the professional environment
- Assess ethical implications in the food field
- Consider safety requirements
- Collaborate and contribute effectively in team work

Type of assessment

Evaluation Continue non Intégrale



Non compulsory Summer Internship

ECTS : 5

Semester: Semestre 2

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

The summer internship is an optional module that terminates the first year of the FIPDes Erasmus Mundus Master. programme. Possible topics of the summer internship are not restrictive. The content should be in the framework of food innovation and product design topics. It is preferred if the internship offers a practical work in labs, companies, organisations, offices. However, a bibliographic work, a survey, etc directed by a scientific supervisor is accepted.

Learning objectives

The aim of the summer internship is for the student to initiate/develop/reinforce professional skills and abilities such as:

- the ability to identify, formulate and manage complex issues;
- the ability to participate in research or development work and in so doing, contribute to the development of knowledge;
- the ability to plan and with scientific and engineering methods, carry out qualified assignments within specified limits;
- the ability to critically and systematically integrate the knowledge acquired in key and qualifying courses in the Programme;
- the ability to, on both national and international levels, clearly report and discuss his or her conclusions and the knowledge and arguments on which they are based;
- independently identify relevant sources of information, perform information searches, evaluate the relevance of the information and use proper referencing techniques.

Skills

- ability to identify, formulate and manage complex issues;
- ability to participate in research or development work and in so doing, contribute

Semester 1 AgroParisTech

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Transversal Innovation Project (I): Ideation and co-creation	1.5	Semestre 1	0	18				

Transversal Innovation Project (I): Ideation and co-creation

ECTS : 1.5

Semester: Semestre 1

Detail

Lecture: 0

Directed study: 18

Tutored project 9

Independent learning: 10

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

During creativity workshops, students will use different creativity approaches and tools to develop for cocept ideation linked to their prototype. Several interactive and experiential intercultural sessions are organized throughout the semester, in order to: discuss culture and identity; cover different aspects of French culture, including how to adapt to a French academic environment; develop intercultural communication skills; discover how to make the most of this unique FIPDes experience both at the personal and professional levels.

Learning objectives

This module consists of 2 transversal topics: intercultural intelligence, and creativity.

Objectives:

With this triple module, students will learn how to:

- implement creativity-fostering practices and tools.
- develop reflexivity and cultural sensitivity; explore some cultural differences; discover some intercultural tools and strategies to try and make the most of working across cultures.
- apply these tools and strategies while working on concrete cases: the Innovation project in Dublin (S2).

Overall organisation

tutorials

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Comprehensive Food Science and Analysis	5	Semestre 1	21	27	3			

Comprehensive Food Science and Analysis

ECTS : 5

Semester: Semestre 1

Detail

Lecture: 21

Practical study : 3

Directed study: 27

Independant learning: 9

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Food biotechnology or food science

Programme/contents

The courses present

i) the main mechanisms for structuring food products (gelation, thickening, crystallization, foaming, emulsification, etc.) considering the different macronutrients (protein, polysaccharides, lipids). It considered also the method to characterize the properties

ii) the mechanism for controlling organoleptic properties such as colour and flavour through formulation and chemical reactivity

iii) the strategies to analyse food product composition and structural properties and sensorial perception

iv) the bioprocess such as fermentation considering the kinetics of growth and metabolism of microorganism to develop properties such as structure or aroma.

v) The main risk (microbiology and chemical) that should be assessed and the legislation.

Learning objectives

- **Explain the reactivity and functionality of food components** (protein, carbohydrate, lipids), in relation with their structure
- Explain the microbial processes related to **fermentation and** Quantify the kinetics of

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Experimental approaches to valorize emerging ingredients	2	Semestre 1	6		21			
■								

Experimental approaches to valorize emerging ingredients

ECTS : 2

Semester: Semestre 1

Detail

Lecture: 6

Practical study : 21

Independant learning: 9

Language(s) of instruction

Anglais

Remote teaching

non

Learning objectives

-Explore the diversity and the potential of emerging food ingredients

- evaluate and improve their properties in different food applications.

Be able to measure relevant textural, functional, sensorial and chemical key properties.

Overall organisation

Courses

Tutorials

Experimental project

Special teaching arrangements

Team project

Type of assessment

Evaluation Continue non Intégrale

[Introduction to Formulation Engineering Applied to Food Products](#)

1.5	Semestre 1	9	3	3
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Introduction to Formulation Engineering Applied to Food Products

ECTS : 1.5

Semester: Semestre 1

Detail

Lecture: 9

Practical study : 3

Directed study: 3

Tutored project 6

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

Principles of formulation engineering, from the methodology to the definition of the statement of work/specifications (cahier des charges). Towards the industrialization goals: from recipe to pilot scale: which challenges, which tricks?

Formulation of food flavourings, technological frame and practical work: which solution for which problem?

Approaches and examples of nutritional food formulation.

Application examples of statistical tools for formulation.

The module is based on a balanced distribution of lectures, practicals and teamwork. The lectures will be given by experts on their topics from the research or the industrial field. Part of the course is based on project work, where the students should analyse a case study and propose solutions concerning a formulation issue. The output of the project will be assessed at the end of the module as the main evaluation deliverable together with the active involvement of each student.

Learning objectives

Provide the students with the basic knowledge, methodologies and the most recent tools for approaching a food formulation problem at research or industrial scale.

Overall organisation

Lectures-Courses

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Food Process Engineering	4	Semestre 1	10	29	12			

Food Process Engineering

ECTS : 4

Semester: Semestre 1

Detail

Lecture: 10

Practical study : 12

Directed study: 29

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

The course is based on 13 sessions, each session including a short lecture on theoretical aspects coupled to tutorials on practical problems. The final exam consists of classical problems encountered in food engineering, to resolve in a limited time.

Learning objectives

The purpose of this course is to give students an introduction to basic food process engineering principles.

Skills

Knowledge and understanding

The student must have understood the interest of using basic process engineering principles in order to dimension rationally the unit operations of a fabrication line in the field of food and bio-products. Three unifying concepts will be specifically presented and illustrated: unit operations, mass and energy balances and dimensionless numbers. Thermal unit operations (sterilization, cooling...) and/ or operations involving mass transfer (drying, evaporation) will be used as example and practice problems. For each practice problem, the simplifying assumptions which have to be made in order to simplify the mathematical formulation of phenomena of concern will be precisely discussed. A stress will also be put on fundamental physic principles underlying the methods presented in the course.

Skills and abilities

For passing grade the student must:

- be fluent with common engineering units and be able to check the dimensional consistency for a given equation

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Introduction Module: FIPDes Week	1.5	Semestre 1						

Introduction Module: FIPDes Week

ECTS : 1.5

Semester: Semestre 1

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

The philosophy behind the EMJM-FIPDes will be presented. Introductory lectures on the main challenges of the food innovation will be given by the teaching staff of Consortium institutions and by guest lecturers from the professional sector and foreign universities. Round tables about interculturality and food culture will be also organised in order to introduce students with European food culture, society and R&D issues. A scientific international workshop and the diploma ceremony are also organised during this week. A visit of a food factory (or of a Food Group R&I centre) will close the week.

Learning objectives

The introduction module is designed to welcome EM students, to present the teaching staff from the whole FIPDes Consortium institutions. This module will give all practical tips for stay and to catalyse team building.

Skills

Develop personal, interpersonal and professional communication skills.

Understand the cutting-edge trends of the food innovation and product design at a global scale.

Develop personal, interpersonal and professional communication skills.

Understand the cutting-edge trends of the food innovation and product design at a global scale.

Evaluate and analyse the key missions and organisation of a multinational food firm factory.

Type of assessment

Evaluation Continue non Intégrale

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	
Research and Development Project	9	Semestre 1							

Research and Development Project

ECTS : 9

Semester: Semestre 1

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

This module concerns the different steps and issues of R&D projects.

Groups of 5 students will be in charge of a precise mission in order to answer to a specific industrial question on product/process issues (e.g. reformulation issues, eco-conception of product or processes, etc.). Students' work will be divided among literature review, propose a roadmap, define the missions, planning and conduct the experimental part (if applicable), technical and scientific reporting (oral and written).

Learning objectives

The purpose of the course is to put the students into a project management situation working on a practical case issued from an industrial/R&D food design topic. Students gathered in teams will be in charge of analysing, find a strategy, and solve a practical case.

Overall organisation

Students will follow classes in project management and interculturality in order to better complete this module. The team will hold follow-up meetings with the industrial partner and academic tutors.

Skills

Knowledge and understanding For a passing grade the student must:

- evaluate and describe the global issues of Research and Development

Skills and abilities For a passing grade the student must:

- identify and reformulate the requirements of the industrial commitment into a technical specification

- Identify and prioritise actions for the good

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
French Language or Foreign Language for French Speaking Students	2	Semestre 1		36				

French Language or Foreign Language for French Speaking Students

ECTS : 2

Semester: Semestre 1

Detail

Directed study: 36

Language(s) of instruction

Français

Remote teaching

non

Programme/contents

Levels groups will be formed at the first week, to suit better for the student.

Cultures, civilization and news offer extensive range of options to make alive and interactive courses.

- History of French life and culture
- How to integrate French culture
- Local mentality
- first aid kit
- company culture
- How to make CVs
- How to make a cover letter
- How to manage a job interview

Learning objectives

Activate, consolidate and expand their knowledge, develop autonomy and fluency in the language, a level of autonomy (B1 / B1 + CEFR / European Framework) or operability (B2 / B2 +) to make courses or studies in French speaking countries if the student wishes.

For students who are French speaker, they will have the same courses with same aims and purpose, and materials but for a foreign language.

Skills

- Write a correct CV and cover letter
- Understanding French life, culture and some keypoint of history
- Understanding French company culture
- Interculturality
- Communication
- Share with another culture
- Open-minded

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	
Introduction to Sustainable Development of Food Systems	1.5	Semestre 1	8	6					

Introduction to Sustainable Development of Food Systems

ECTS : 1.5

Semester: Semestre 1

Detail

Lecture: 8

Directed study: 6

Tutored project 6

Independant learning: 7

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

Theoretical lessons on sustainable issues in European food sector. Initiation on the Life Cycle Assessment method and its use for the eco-design. PhD presentations of their research subjects and of their results in connection with some of the different sustainable issues. Industrials and associations illustrations given by some members of these organizations.

Learning objectives

Identify sustainable issues of food production, distribution and consumption. Discovery of major tools, methods and concepts associated with the topic.

Skills

- Knowledge and understanding :
Identify strategic sustainability issues for food companies. Having knowledge to mobilize models solutions / improvements to products and organizations.
- Skills and abilities
Understanding of LCA functioning and aims. Being able to enter in progress initiatives companies (operational product / site or strategy) companies.
New approach of the complex systems and of their modeling.

Type of assessment

Evaluation Continue non Intégrale

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	
Statistics Applied to Food Science and Technology	2	Semestre 1							

Statistics Applied to Food Science and Technology

ECTS : 2

Semester: Semestre 1

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

Chi-square test, Z test, Student's t test, simple linear and multiple regressions, variance analysis and descriptive statistics.

Learning objectives

The programme is designed to give participants an understanding of the concepts and techniques needed for the statistical analysis of experimental data, and why these methods are necessary in experimental sciences.

Skills

Knowledge and understanding: For a passing grade the student must:

Understand the skills necessary for statistical tests and multivariate analysis.

Skills and abilities: For a passing grade the student must:

Demonstrate a clear understanding of the theory and practice of data analysis.

Demonstrate a clear understanding of the theory and practice of data analysis.

Bibliography

R. Gordon, M.Pickering, D. Bisson

"Uncertainty Analysis - the 'Worst Case' Method"

J. Chem. Educ. 1984, 61, 780-781

J. C. Miller, J. N. Miller

Statistics for Analytical Chemistry

New York : Ellis Horwood PTR Prentice Hall,

1993.ISBN 0-13-030990-7

Type of assessment

Evaluation Continue non Intégrale

Semester 2 TU Dublin

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Marketing Communication and Consumer Behaviour	5	Semestre 2	24					

Marketing Communication and Consumer Behaviour

ECTS : 5

Semester: Semestre 2

Detail

Lecture: 24

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

The module will provide the theoretical underpinning and practical application of Marketing communications and consumer behaviour which is central to the successful operation of any enterprise in the food and culinary arts related industries. The Marketing Communications component of the module addresses a number of current perspectives and schools of thought in the marketing communications arena pertaining to integrated marketing communications, branding, on-line communications and ethical considerations. The Consumer Behaviour component addresses the nature of consumers in terms of behaviour, attitudes, consumption and culture. The module also assesses the relevance and application of these perspectives in the marketplace. This module will be delivered by way of lectures and presentations followed by class discussion. Other learning resources may include nominated websites. Guest lecturers may also contribute where applicable. Throughout the module the students are encouraged to undertake independent reading to supplement and consolidate what is being learnt in lectures and to broaden their individual knowledge and understanding of the subject.

Learning objectives

The aim of this module is to introduce graduate students to the principal concepts and applications of marketing communications and consumer behaviour. Students will be encouraged to engage with the theory in a critical manner and to develop appropriate analytical skills which may be applied to various business and consumer situations.

Skills

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
New Food Business Creation	5	Semestre 2	24					

New Food Business Creation

ECTS : 5

Semester: Semestre 2

Detail

Lecture: 24

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

This module focuses on providing the knowledge and the interrelated skills required to commercially develop a new food/beverage business product and idea from concept to fruition. The teaching strategies will be learner centred and include a variety of approaches including: debates Lectures; Case Studies; Guest Lecturers, site visits and seminars.

Learning objectives

To develop a systematic understanding and awareness of the issues, tools and techniques involved in developing a new Food/ beverage product.

Skills

Knowledge and understanding In order to pass the student must:

- Display a systematic knowledge and understanding of the key ingredients of creating a new business venture in both small medium and large enterprises
- Demonstrate a critical awareness of the risks and rewards associated with food product development business ventures

Skills and abilities In order to pass the student must:

- Evaluate the key drivers of change within an organization
- Construct a business product plan for a 3-5 year time frame
- Develop further their intellectual and personal qualities
- Facilitate and advance their own learning
- Display a systematic knowledge and understanding of the key ingredients of creating a new business venture in both small medium and large enterprises
- Demonstrate a critical awareness of the risks and rewards associated with food product development business ventures
- Evaluate the key drivers of change within an organization
- Construct a business product plan for a 3-5 year time frame
- Develop further their intellectual and personal

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Food Law and the Regulatory Environment	5	Semestre 2	24					
■								

Food Law and the Regulatory Environment

ECTS : 5

Semester: Semestre 2

Detail

Lecture: 24

Language(s) of instruction

Anglais

Remote teaching

non

Type of assessment

Evaluation Continue non Intégrale

[Advanced Molecular Gastronomy](#)

5	Semestre 2	12	24
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Advanced Molecular Gastronomy

ECTS : 5

Semester: Semestre 2

Detail

Lecture: 12

Practical study : 24

Project : 64

Language(s) of instruction

Anglais

Remote teaching

non

Programme/contents

Indicative syllabus covered in the module and / or in its discrete elements • Introduction to MG module • Lecture: Overview of Molecular Gastronomy • Lecture: Introduction to Hydrocolloids • Kitchen: Practical application of Agar and Alginate • Lecture: Maltodextrin, Xanthan and Hemicellulose • Kitchen: Practical application of Maltodextrin, Xanthan • Lecture: Liquid Nitrogen and Dry Ice • Practical: Practical application of Liquid Nitrogen • Lecture: Formalisms and Precisions • Kitchen: Precisions • Kitchen: Sous-vide • Lecture: Note-by-Note • Kitchen: Note-by-Note Demo • Students to work on Assignment

Learning objectives

- Critically evaluate the fundamental scientific and gastronomic theories of Molecular Gastronomy.
- Produce a novel and innovative dish/cocktail using ingredients and techniques associated with Molecular Gastronomy.
- Develop new skills to a high level including novel techniques

Overall organisation

1 hour lecture followed by 2 hour kitchen class (in most weeks). Lectures delivered by Culinary Scientist (Róisín Burke) and Kitchen practicals by Culinary Arts lecturer (Pauline Danaher) and Culinary Scientist (Róisín Burke). The module runs over 12 weeks in Semester 2 in TU Dublin.

Bibliography

This, H. (2014). Note-by-Note Cooking: The Future of Food. Culinary Arts.

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Transversal innovation project (II): Food prototype development and evaluation	10	Semestre 2	4		44			

Transversal innovation project (II): Food prototype development and evaluation

ECTS : 10

Semester: Semestre 2

Detail

Lecture: 4

Practical study : 44

Project : 52

Language(s) of instruction

Français

Remote teaching

non

Programme/contents

This module focuses on the development of a new food product and is a synthesis of the theoretical and applied knowledge in developing a new food product. Prototype development, formulation and use of production equipment. Shelf life and Consumer sensory testing.

Learning objectives

The aim of this module is to deepen the skill and knowledge base required to produce a successful new food product.

Skills

Knowledge and understanding In order to pass the student must:

- Integrate the theoretical and practical skills of product development
- Develop and deepen their critical analysis in the evaluation of scientific and technical data
- Facilitate and advance their own learning

Skills and abilities In order to pass the student must:

- Take significant responsibility for the development of a new food product
- Manipulate food ingredients and additives to ensure effective development of a food product
- Communicate results of a new product development
- Take significant responsibility for the development of a new food product
- Manipulate food ingredients and additives to ensure effective development of a food product
- Communicate results of a new product development

Type of assessment

Teaching Location(s)

PALAISEAU

Contact

- **Barbara REGA**
Responsable de formation
- **Giana PERRE**
Responsable de formation
- **Secretary FIPDes**
Secrétariat

Links

[More information on tuition fees](#)

[More information on scholarships](#)

<http://www.universite-paris-saclay.fr/formation/master/nutrition-et-sciences-des-aliments/m1-fipdes-food-innovation-and-product-design>