



ECTS

Reminders and example

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ECTS



The European Credit Transfer and Accumulation System (ECTS) is **a tool** of the European Higher Education Area (EHEA) for making studies and courses **more transparent** and thus helping to **enhance the quality** of higher education.

ECTS USERS' GUIDE 2015

History of ECTS

- ECTS was instituted in 1989, within the Erasmus programme, as a way of transferring credits that students earned during their studies abroad into credits that counted towards their degree, on their return to studying in their home institution.
- In the following years, it came to be used **not only** for transferring credits, on the basis of **workload** and achieved **learning outcomes**, but also for accumulating them in institutions' degree programmes



ECTS key features

ECTS

**Learning
Outcomes**

ECTS Credits

Workload



ECTS goals



- ECTS is adopted as the **national credit system** in most countries of the EHEA.
- In other regions of the world, it is increasingly used by institutions or interacts successfully with local credit systems based on comparable criteria, thus playing a role in the growing global dimension of education.
- Within the EHEA, ECTS increases the transparency and readability of the educational process and thus plays an effective role in stimulating change and modernisation, because its implementation encourages the **paradigm shift** from a teacher-centred to a **learner-centred approach**, which is, under the term of Student-Centred Learning (SCL).

Student-Centred Learning

- Student-Centred Learning (SCL) is a process of qualitative transformation for students and other learners in a learning environment, aimed at enhancing their autonomy and critical ability through an outcome-based approach.
- The SCL concept can be summarised into the following elements:
 - Reliance on active rather than passive learning;
 - Emphasis on critical and analytical learning and understanding;
 - Increased responsibility and accountability on the part of the student;
 - Increased autonomy of the student;
 - A reflective approach to the learning and teaching process on the part of both the student and the teacher

Comparison

Teacher-Centered Approach

Direct Instruction

- Formal Authority
- Expert
- Personal Model

Student-Centered Approach

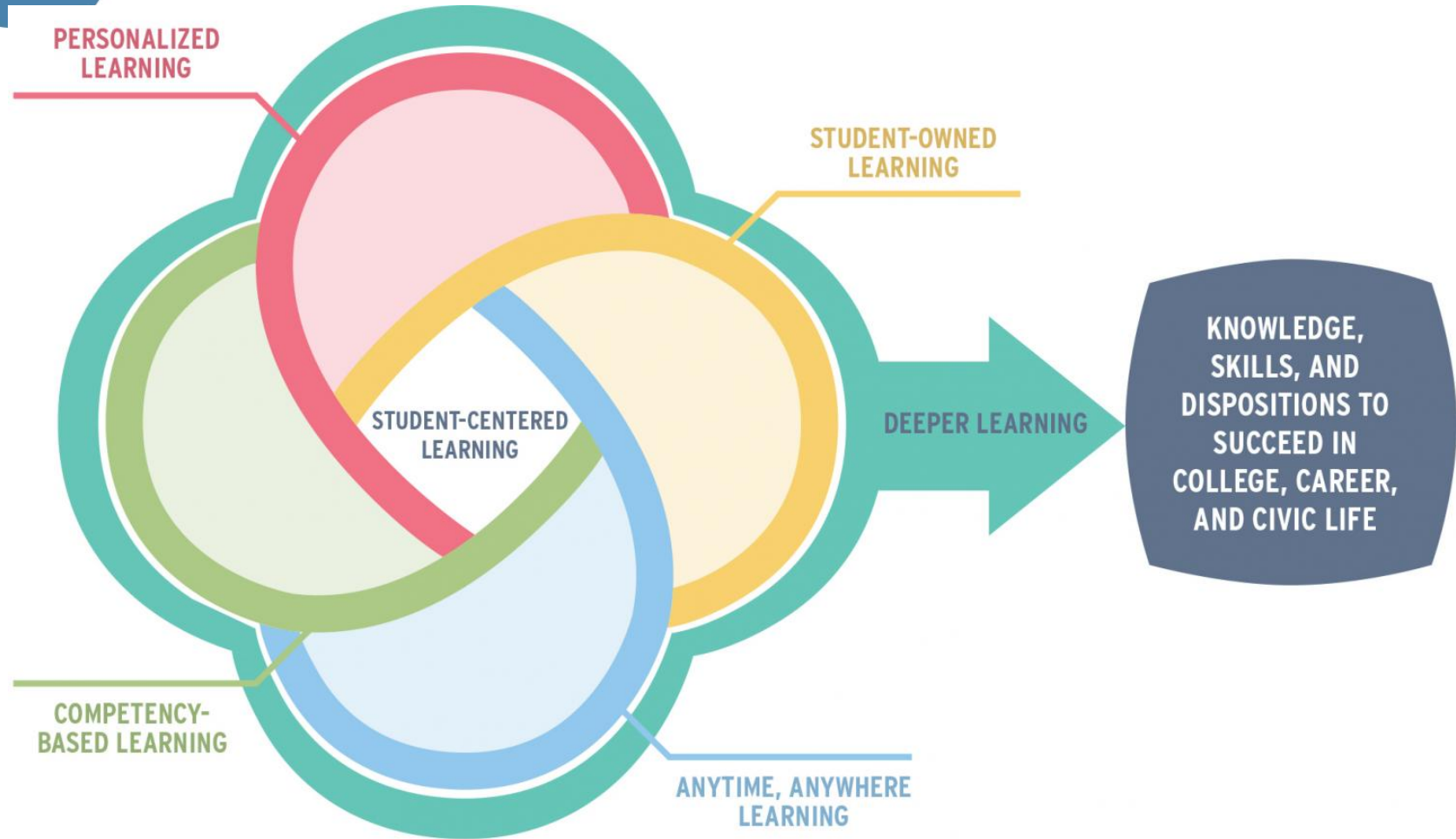
Inquiry-Based Learning

- Facilitator
- Personal Model
- Delegator

Cooperative Learning

- Facilitator
- Delegator

Student Centered Approach



Programme profile

The profile presents the distinctive features of the programme.

It indicates :

- the field(s) of study
- The level of the programme,
- the main focus,
- the key learning outcomes expected on completion,
- The learning environment and the main learning, teaching and assessment activities.

An effective programme profile will make it clear to students and stakeholders what generic and subject specific competences will be developed and the employability potential of the programme.

For this purpose, it is recommended that the profile is defined in consultation with relevant stakeholders (such as academic peers, social partners, employers, graduates, and student representatives)

Formulating Programme Learning Outcomes

The learning outcomes should adequately reflect the context, level, scope and content of the programme.

- The statements of learning outcomes have to be succinct and not too detailed.
- The learning outcomes have to be mutually consistent.
- The learning outcomes should be easily understandable and verifiable in terms of what the student has actually achieved at the end of the programme.
- The learning outcomes have to be achievable within the specified workload.
- The learning outcomes have to be linked with appropriate learning activities, assessment methods and assessment criteria.
- There are no rules on the ideal number of learning outcomes at programme level. Experience suggests that between 10 and 12 is appropriate.

The programme structure

- The programme profile is broken down into educational components which may consist of single or several modules, other types of course unit, work and clinical placements, research projects, laboratory work and other relevant learning activities.
- They may also include social and community activities (for example, tutoring and mentoring) provided they fit the programme learning outcomes and carry credits.
- Learning outcomes, with related assessment strategies and assessment criteria, should be defined for each educational component

General principles for learning, teaching & assessment

- Open Dialogue and Participation : all stakeholders should be involved
- Consistency between learning outcomes, learning activities, and assessment
- Flexibility : allow students choices / opportunity to build personal pathways
- Appropriate assesment of achievements

Institutional rules & regulations

Experience has shown that the following good practice facilitates the management of credit mobility and recognition :

- Institutional commitment
- Selection of partner institution
- Integration of credit mobility into programmes

Example

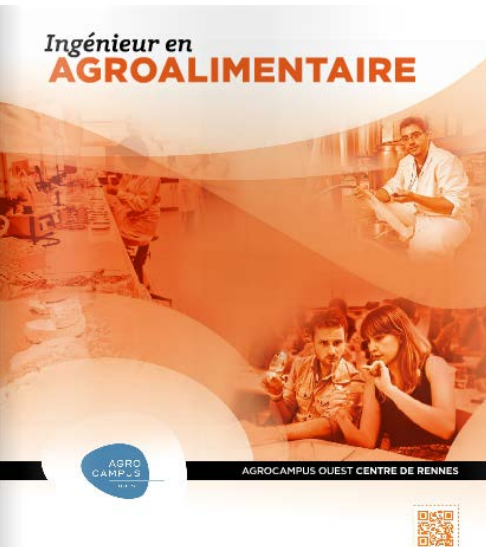
As a professionally focused specialisation, ALIMN Master intends to meet the challenges of the agri-food industry, and to support its development by training innovative operators and managers.

Based on a solid scientific core, this course is divided across different subjects and/or sectors :

Master Food Science, Dairy Science, Innovation,
Management (ALIM)

3 possible majors :

- The MEA major (Agri-food business management)
- The MIAM major (Innovation and food production)
- The MIEL major (Dairy industry and economics)



Food Science and Engineering MSc

Presentation Admissions **Course structure** Majors Trades

The MSc in Food Science and Engineering course involves:

- 10 semesters for students recruited post school-leaving
- 8 semesters for students recruited at B2 level

It covers a variety of teaching methods, with priority given to vocational experience: classes, seminars, practical work, projects and traineeships.

It is structured in accordance with the BMD system, and assessment is based on ECTS credits.

One semester of study corresponds to 30 ECTS credits.

Teaching based around a professional approach

In addition to essential scientific knowledge, throughout the course engineering students acquire professional working methods and develop social and interpersonal skills intended to provide them with the open-minded spirit that all managers must have.

Details of Course structure

▼ A 3-year cycle providing scientific foundations and professional skills

• 1st year: Semesters 1 and 2

- Acquiring the scientific foundations essential to all engineers (80% lectures, 20% practical work and seminars)
- Learning about the first link in the food-production chain (15-day placement in an agricultural company)

• 2nd year: Semesters 3 and 4

- Acquiring scientific foundations applied to food sciences (80% lectures, 20% practical work and seminars)
- Studying socio-economic and management aspects
- Strengthening existing knowledge of a modern language (4-week linguistic internship)

• 3rd year: Semesters 5 and 6

- Learning about the engineering trade and the world of business (5 to 6 month in-company placement in France / semester 5)
- Enhancing technological and socio-economic applied skills in food sciences
- Conducting a study project on a cross-disciplinary theme, begun during the placement

▼ A 2-year cycle of specialisation

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FOCUS

Welcome



French higher
education system



Homepage > Academics > MSc in Engineering Programs > Food Science and Engineering MSc > Course structure

Food Science and Engineering MSc

Presentation | Admissions | **Course structure** | Majors | Trades

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Details of Course structure

- ▶ **A 3-year cycle providing scientific foundations and professional skills**
- ▼ **A 2-year cycle of specialisation**

4th year and 5th year: Semesters 7 to 10 - two years of specialisation

- Starting to specialise through professional immersion (4 to 6-month internship in a company or research institute abroad / semester 7)
- Consolidating and developing general scientific training (semesters 8 and 9)
- Acquiring specific skills related to specialism (semesters 8 and 9)
- Completing an engineering project (6-month final internship, in a company or research institute, in France or abroad)

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- Welcome ▶
 - French higher education system ▶



Food Science Master – M1 (1st year)

The MEA major
(Agri-food business management)

The MIAM major
(Innovation and
food production)

The MIEL major
(Dairy industry and economics)

	MEA	MIAM	MIEL
		<ul style="list-style-type: none"> Sciences et technologies des aliments (6 ECTS) Food science & technology Génie physique et biologique (6 ECTS) Biology and physics Nutrition humaine (3 ECTS) Human nutrition 	
Semestre 7		<ul style="list-style-type: none"> Analyse sensorielle et statistiques appliquées (3 ECTS) Sensory analysis and statistics L'entreprise agro-alimentaire et son environnement (6 ECTS) Food companies Processus d'innovation (3 ECTS) Innovation processus Sociologie de l'alimentation et introduction à l'art culinaire (3 ECTS) Sociology and culinary art 	

Food Science Master – M1 (1st year)

The MEA major
(Agri-food business management)

The MIAM major
(Innovation and
food production)

The MIEL major
(Dairy industry and economics)

Semestre 8	<ul style="list-style-type: none"> • Conduite des organisations industrielles alimentaires (6 ECTS) • Cuisine moléculaire (6 ECTS) • Projet tutoré en marketing sur problématique d'entreprise (3 ECTS) • Anglais (3 ECTS) • Stage de 12 semaines - avril à juin (12 ECTS) 	<ul style="list-style-type: none"> • Conduite des organisations industrielles alimentaires (6 ECTS) • Cuisine moléculaire (6 ECTS) • Ingrédients alimentaires (3 ECTS) • Anglais (3 ECTS) • Stage de 12 semaines - avril à juin (12 ECTS) 	<ul style="list-style-type: none"> • Conduite des organisations industrielles alimentaires (6 ECTS) • Sciences et technologies laitières (6 ECTS) • Qualité du lait et réglementation (3 ECTS) • Anglais (3 ECTS) • Stage de 12 semaines - avril à juin (12 ECTS)
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The MEA major (Agri-food business management)

Semestre 8

- Conduite des organisations industrielles alimentaires (6 ECTS)
- Cuisine moléculaire (6 ECTS)
- Projet tutoré en marketing sur problématique d'entreprise (3 ECTS)
- Anglais (3 ECTS)
- Stage de 12 semaines - avril à juin (12 ECTS)

Management of organisation

Molecular gastronomy

Marketing project (company needs)

English

Internship

Master in Food Science - M2 (2nd year)

▼ Master 2

	MEA	MIAM	MIEL
Semestre 9	<ul style="list-style-type: none"> • Droit alimentaire, droit du travail, management des ressources humaines (6 ECTS) • Démarche d'innovation (3 ECTS) • Gestion agroalimentaire (6 ECTS) • Marketing (6 ECTS) • Approfondissements en MEA (3 ECTS) • Anglais (3 ECTS) 	<ul style="list-style-type: none"> • Droit alimentaire, droit du travail, management des ressources humaines (6 ECTS) • Démarche d'innovation (3 ECTS) • Art culinaire industrialisé (6 ECTS) • Chimie analytique-Analyse de la qualité (6 ECTS) • Approfondissement en génie des procédés (3 ECTS) • Projet de recherche et développement (3 ECTS) • Anglais (3 ECTS) 	<ul style="list-style-type: none"> • Droit alimentaire, droit du travail, management des ressources humaines (6 ECTS) • Démarche d'innovation (3 ECTS) • Technologie laitière et Nutrition (6 ECTS) • Science et technologie fromagère (6 ECTS) • L'entreprise de la transformation laitière (6 ECTS) • Anglais (3 ECTS)
Semestre 10	<ul style="list-style-type: none"> • Cas d'études et journées thématiques (3 ECTS) • Stage de 6 mois - mars à septembre (27 ECTS) 		

Master in Food Science - M2 (2nd year)

Master 2

MEA

- Semestre 9
- Droit alimentaire, droit du travail, management des ressources humaines (6 ECTS)
 - Démarche d'innovation (3 ECTS)
 - Gestion agroalimentaire (6 ECTS)
 - Marketing (6 ECTS)
 - Approfondissements en MEA (3 ECTS)
 - Anglais (3 ECTS)

Food Regulations, Human resources

Innovation process

Food management & comptability

Marketing

Elective courses

English

- Semestre 10
- Cas d'études et journées thématiques (3 ECTS)
 - Stage de 6 mois - mars à septembre (27 ECTS)

Study cases and seminars

6 months Internship

Thank you

