AGRO SUP DIJON
Institut national supérieur des sciences agronomiques de l'alimentation et de l'environnement

Courses open to International Exchange students at AgroSup Dijon

Agricultural Engineering programme

Autumn Semester Level 5

LEVEL 5 / 1st semester		AGRICULTURAL PROGRAMME IN FRENCH LANGUAGE		
Name of Teaching Unit	**Module**	**Objectives**	**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	*7*
	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	
	Engineer 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	
	Advanced statistics	To allow engineering students to deal with practical problems arising from agronomic data and to: -recognize the usual nonlinear models and to estimate their parameters; - complete the process of analyzing the data by dealing with the discrimination part; - choose the sampling methodology and the adapted experimental design according to the studied factors and the factors to control.	20	
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*
Specializations	***1 specialization module (see details below) to be chosen between:*** - Agriculture, alternatives, governance, initiatives, rurality (AGIR) - Agroecology for Sustainable plant production (APOGEE) - Resources, data, diagnoses, climatic changes (RD2C2) - Cattle Breeding Engineering (IE) - Science and technique of agro equipment (STEA) - Strategies and Organization of agricultural and food processing companies and professional sectors (SOFEAA)		214	*14*
TOTAL			**451**	**30**

AGRICULTURAL SPECIALIZATIONS - LEVEL 5, SEMESTER 1

Agriculture, alternatives, governance, initiatives, governance, rurality (AAGIR)
The objective of this course is to connect agronomic competences and social sciences in order to manage collective projects for a regional sustainable development. Some examples are: re-localizing agriculture, development of local distribution networks, promoting local resources protecting the environment….
The course is composed of 5 modules (from green revolution to sustainable development, actors and governance of development, agricultural policy, from the analysis of rural dynamics to territory diagnosis, making territories) and a case study which includes field surveys and the production of a deliverable.

Agroecology for sustainable plant production
The course aims at training engineers oriented towards plant production and able to meet the diversified needs of the rural and agricultural world and society in general and to manage priorities in terms of space management and environment.
The program is organized in 2 units: Production system, environment and territory, and agronomic and environmental engineering.

Resources, data, diagnoses, climatic changes
The objective of this course is to train professionals able to propose strategies in terms of sustainable management of resources (water, soil, biodiversity) in the context of climatic change.
The course is closely related to the professional context with a role-playing project and courses provided at 60% by professionals.
At the end, job prospects could include consultancy in the fields of environment and sustainable development, pollution control and restoration of natural habitat, environmental diagnosis, counselling, etc.….

Cattle breeding engineering
The aim is to train engineers able to grasp the global nature and specificities of a livestock farm as well as its relations with multiple actors and organizations.
They will also be able to contribute to the development and mastership of cattle breeding activities: improvement of production and transformation in a perspective of sustainable development.
The course is developed as follow: an introductory module presenting the context of the cattle breeding sector followed by modules which will provide scientific and technical knowledge (food, selection, health, welfare, and environment). 2 field trips are also part of the course.

Science and technique of agro equipment
This course is the only one delivered in higher education in France in the field of agro equipment. It covers a wide range of machines (tractors, drilling machines, spreaders….) and other equipment (GPS….) used in plant production or cattle breeding farms.
The pedagogical content is based of courses providing scientific and technical knowledge, professional discovery (courses provided by professionals, visits of a professional fair), specialized disciplinary courses: agro equipment, precision agriculture, cattle breeding infrastructures, etc.…. Students will also work on a tutored project and optional professional modules are also proposed.

Strategies and organization of agricultural and food processing companies and professional sectors.
After this course, students will be able to manage innovation and development projects in companies, professional organizations and sectors engaged in the production, transformation and distribution of agricultural and food related products.
The course is based on courses (sectors economy, sustainable development economy, agricultural policy and rural development with a field trip to Brussels, quality management, innovation management, strategical management, and project methodology) and a professional role playing project.