

4.0 credits	30.0 h + 15.0 h	2q
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Teacher(s) :	Larondelle Yvan ; Focant Michel ;
Language :	Français
Place of the course	Louvain-la-Neuve
Inline resources:	Icampus
Prerequisites :	The set of competences, abilities and knowledge acquired during a bachelor degree in the area of Bioscience engineering.
Main themes :	Concepts presented during the course: - basic concepts in animal nutrition ; - formulation of equilibrated and optimized rations for the productive livestock ; - the concept of animal production chains ; - herd management practices ; - the impact of zootechnical measures on the quality of foods of animal origin; - the influence of the production patterns on the animal effluents.
Aims :	a. Contribution de l'activité au référentiel AA (AA du programme) 1.1 à 1.4 ; 2.1 à 2.3 ; 4.1 ; 4.2 ; 4.5 ; 4.7 ; 6.1 ; 6.2 ; 6.4 ; 6.5.  b. Formulation spécifique pour cette activité des AA du programme At the end of the course, the student will be able: - to use a well-assimilated scientific background to manage the formulation of equilibrated and optimized rations for the productive livestock ; - to put in force a formulation procedure adapted to any specific case ; - to describe the major animal production chains ; - to have a general view and a critical opinion on any herd managing practice ; - to evaluate the influence of any zootechnical approach on the quality of the animal-derived products ; - to put the animal production activities in a sustainability perspective ; - to put in force an approach aiming at analyzing a complex process and at providing concrete proposals for its improvement ; - to communicate clear-cut solutions to a complex question, on the basis of a sound analysis of it. <i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i>
Evaluation methods :	Written examination comprising questions evaluating (1) the knowledge acquired, (2) the approach developed to solve a complex problem and (3) the ability to propose practical and optimized rations. Evaluation of the active participation in the visits of production plants. Evaluation of the written report, the oral presentation and the oral defence related to a specific topic submitted to each student.
Teaching methods :	All the topics will be addressed through a coordinated set of oral courses, visits of production farms and associated structures, participation in scientific meetings, individual bibliographic searches and training sessions for the use of herd management softwares. Most of the activity requires the presence of the students.
Content :	1. Ex cathedra course - principles of nutrition - feeding systems - animal requirements and nutritional value of feeding stuffs - principles of dairy production, as well as of bovine and porcine meat production - relation between managing techniques and quality of the products 2. Visits of animal production farms, animal selection centres and feed production plants 3. Training in ration design and in the use of herd management softwares Individual research on a specific topic submitted to each student and delivery of a written report and of an oral presentation followed by answers to the questions of the teachers.
Bibliography :	Written notes or PowerPoint presentation provided by the professors Reference textbooks proposed but not mandatory

<p>Cycle and year of study :</p>	<p><a href="#">&gt; Master [120] in Agricultural Bioengineering</a>  <a href="#">&gt; Master [120] in Environmental Bioengineering</a></p>
<p>Faculty or entity in charge:</p>	<p>AGRO</p>