

## Animal nutrition (IVth Year of study, VIIIth Semester)

Credit value (ECTS) 4

### Course category

Domain (Mandatory)

### Course holder:

Assist.prof.phD. Raluca Elena DONOȘĂ

### Discipline objectives (course and practical works)

The aim of the course is for students to acquire the knowledge on the fodders nutritional value and how to use the main fodder sources to farm animals, the methods for determining the feed value, modern and efficient methods of producing mixed diets for animals, the use of classic and new feed sources and resources in animal nutrition, allowing the production of quality animal products with beneficial influences on human health. It also will study the digestion specific of farm animal, food requirements and food standards taking into account the species and age.

The practical works aim to familiarize students with the work technique in nutrition and feeding laboratories but also with the feeding elements applied to animals of zootechnical interest.

### Contents (syllabus)

Lecture (chapters/subchapters)
<b>The importance of studying animal nutrition.</b> The object of the study of animal nutrition.
<b>The nutritional value of fodder and diets evaluation.</b> The crude chemical composition of the fodder; Classic and modern systems for assessing the nutritional value of fodder.
<b>Fodder - nutritional characteristics.</b> Fodder classification; Plants; Fodder of animal origin; Non-protein synthetic nitrogenous substances; Feed additives; Fodder preparation; Mixed fodder.
<b>Standard feeding for livestock.</b> Feeding standards; Nutritional requirements for maintenance; Nutritional requirements for production; Nutritional requirements for breeding animals; Nutritional requirements for growth and fattening; Nutritional requirements for wool production; Nutritional requirements for milk production; Nutritional requirements for egg production; Nutritional requirements for traction.
<b>The animal nutrition specifics.</b> Cattle feeding; Sheep feeding; Goats feeding; Horse feeding; Pig feeding; Poultry feeding.

Practicum
Safety working rules; Laboratory apparatus and utensils; Good practices work on the laboratory.
Fodder quality assessment based on chemical composition. The fodder chemical analysis scheme. Water and D.M. determining for different categories of fodder. Crude ash determination. Crude fat determination. Crude protein determination. NFS determination.

<b>Assessment of the nutritional value of feed and diets.</b> Assessment of the nutritional value of fodder based on the chemical composition and digestibility of feed components (TDN).
<b>Assessment of the nutritional value</b> expressed in Starch equivalent, NU, FU, IDP. The scheme of the energy transformations in the body.
<b>Standard feeding</b>
<b>Cattle feeding</b>
<b>Sheep and goat feeding</b>
<b>Swine feeding</b>
<b>Poultry feeding</b>
<b>Horse feeding</b>

### References

1. Halga Petru și colab. – *Nutriție și alimentație animală*, Ed. ALFA Iași, 2005.
2. Halga P., I.M. Pop, Teona Avarvarei, Viorica Popa, Bădeliță C., - *Alimentație animală*, Ed. Pim, Iași, 2000
3. Stoica I., - *Nutriția și alimentația animalelor*, Ed. Coral Sanivet, Bucureși, 1997.
4. Teona Avarvarei - *Nutriția animalelor domestice- îndrumar practic*, Ed. Ion Ionescu de la Brad Iași, 1999

### Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Oral examination	70%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	30%

### Contact

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