Sveučilište u Zagrebu Agronomski fakultet
Svetošimunska cesta 25, 10000 Zagreb
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Horse and companion animals nutrition (152099)

Nositelj predmeta

prof. dr. sc. Goran Kiš

Opis predmeta

Horse feeding includes lectures and exercises on the nutritional needs of certain categories of horses according to their age and training, and on the properties of feed materials and additives to the prevention of metabolic disorders. Will be considered nutritional needs throughout the life cycle according to AAFCO and NRC each group and categories of animals. In the section of the module of companion animals in particular will be processed chapters dogs, cats and exotic animals. Will cover nutritional needs and ways of feeding for each type and category of these animals, foods and supplements for pets. Food processing and effect processing on nutritional value. The physical properties of food. Eligibility and palatability of food and size of the meal. Feeding the sick animals. Food and allergies. Legislation and legislation. The preparation of food (a meal, feed mixture and mix and nutritional supplements) for companion animals.

ECTS: **6.00**

E-učenje: **R1**

Sati nastave: 60
Predavanja: 40
Auditorne vježbe: 10
Seminar: 10

Izvođač predavanja

- prof. dr. sc. Goran Kiš

Izvođač vježbi

- prof. dr. sc. Goran Kiš

Ocjenjivanje

Dovoljan (2): 50-59 %
Dobar (3): 60-79 %
Vrlo dobar (4): 80-89 %
Izvrstan (5): 90-100 %

Vrsta predmeta

- Graduate studies / MS Courses taught in English (Izborni predmet, 2. semestar, 1. godina)

Opće kompetencije

The course enables students for individual evaluating the content of nutrients in animal foodstuffs and determines the nutritional requirements of specific categories of horses and pets. Beside that students will be able to create meals based on different requirements for the animals, taking account of animal welfare and protecting the environment.

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Oblici nastave

- Lectures
- Auditory Exercises
  Calculating nutritional requirements and nutritive values of feedstuffs for certain species of animal. Practical calculating of compound feeds and rations for horses and preferred species of companion animal.
- Seminars
  The seminar related to the feeding characteristics of horses or companion animals. Students independently prepare a final project in which they analyze complete nutritional management in preferred species of animals.

Ishodi učenja i način provjere

Ishod učenja	Način provjere
Explain the central role of digestion and metabolism in the assessment of nutritional values of feedstuffs and animal requirements.	Written or oral
Identify the characteristics of feed materials used in the feeding of horses and companion animals.	Written or oral
Emphasize differences in feeding dogs and cats by breed groups, and particular groups of companion animals.	Written or oral
Emphasize differences in feeding cold-blooded and warm-blooded horses.	Written or oral
Select feed material used in feeding companion animals.	Written or oral
Create meals for horses.	Written
Create meals for one type of companion animal.	Written

Način rada

Obveze nastavnika

• Lectures and auditory exercises.
• Assistance in the preparation of seminars and possible, graduate theses.

Obveze studenta

• Participation in teaching.
• Preparation and presentation of a seminar paper.
• Design and oral exam.

Polaganje ispita

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Adoption of program content – Partial exam I	30%	up to 49 50-59 60-79 80-89 90-100	Nedovoljan (1) Dovoljan (2) Dobar (3) Vrlo dobar (4) Izvrstan (5)	28	60	1
Adoption of program content – Partial exam II	30%	up to 49 50-59 60-79 80-89 90-100	Nedovoljan (1) Dovoljan (2) Dobar (3) Vrlo dobar (4) Izvrstan (5)	24	60	1
Writing a seminar paper	10%	up to 49 50-59 60-79 80-89 90-100	Nedovoljan (1) Dovoljan (2) Dobar (3) Vrlo dobar (4) Izvrstan (5)	8	30	1
Final project	30%	up to 49 50-59 60-79 80-89 90-100	Nedovoljan (1) Dovoljan (2) Dobar (3) Vrlo dobar (4) Izvrstan (5)	0	30	2
Continuous attendance of lectures				0	0	1
Total	100%			60	180	6

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Elementi praćenja	Opis	Rok	Nadoknada
Adoption of program content – Partial exam II	After the lectures of one part of the Module students take written partial exam in duration of one hour. Partial exam consists of 30 questions related to learning outcomes.	Within lectures	At the regular examination periods as a final exam.
Writing a seminar paper	Seminar is conducted in groups of 2-3 students and for students is mandatory. Seminar topics related to feeding horses or some of the types of companion animals, depending on the preferences of the student. After making seminar presented the theme with a public presentation during class.	Within lectures	At the regular examination periods.
Final project	The final project performed each student individually and for the students is mandatory. The theme of the final project is the development of complete management of feeding a horse or some of the species of animals kept as companions. It is expected that an independent processing threads.	The last lecture	At the regular examination periods.
Continuous attendance of lectures	Arrival of students to classes is checked and a condition for obtaining signatures and approach to the exam.	The last lecture	Not possible.

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Tjedni plan nastave

1. The role of nutrients, signs of excess and deficiency, their utilization for maintenance, training and growth of the horse.
2. Feeding breeding mares and foals, nutrition for growth, feeding to achieve the performance and during exercise.
3. Specifics structure of the digestive system of horses, the importance of micropopulation in large intestine (cecum, colon) on digestion, nutrient absorption in the large intestine and their metabolism. Composition and regulation of secretion of bile.
4. Nutritional diseases of horses, feed and supplements for horses, pastures and horses grazing, laboratory methods of determining the nutritional status of the horse, diet formulation for each category of horses.
5. Characteristics, methods of manufacture and storage of food for the horses. Specific characteristics of food for horses by age and way of utilizing horses.
6. Calculations of nutritive requirements for horses based on type of horse keeping.
7. Formulation of diets and feed mixtures for certain categories of cold-blooded horses.
8. Formulation of diets and feed mixtures for certain categories of warm-blooded horses.
9. Requirements of dogs for nutrients as a source of energy, structural and active substances in the relevant periods of dogs life especially puppies and older dogs.
10. Characteristics of dog’s food, palatability and acceptability of dog’s food and its labeling.
11. Feeding of females, puppies, growing and adult dogs to the maintenance and activity level. The preparation of food for specific breeds and categories of dogs.
12. Requirements of cats for nutrients as a source of energy, structural and active substances in the relevant periods cats life, especially kittens and older cats. Characteristics of cat’s food, palatability and acceptability of cat food and its labeling.
13. Feeding kittens, growing and adult cats on maintenance level. Feeding old and fat and sick cats. The preparation of food for specific breeds and categories of cats.
14. Feeding other companion animals builds on the knowledge from fish and poultry courses. The basics of feeding exotic birds, chinchillas and guinea pigs, ferrets hybrid (ferrets, reptiles (snakes, turtles, lizards, frogs and amphibians) and small animals (mice, rats, hamsters, voles, etc.).
15. The specifics of digestion (food intake, composition and role of the gland secretions of the digestive system) in carnivores and rodents (denture, ceacotrofija). Examples of preparation of diets for certain types of companion animals

Obvezna literatura

1. Frape D. 2004. Equine Nutrition and Feeding (Third Ed.), Blackwell Publishing Ltd. UK
2. Case L.P., Daristotle L., Hayek M.G., Raasch M.F., 2011. Canine and Feline Nutrition (Third Edition), Mosby Elsevier. USA
3. McNamara J.P., 2005. Principles of Companion Animal Nutrition. Prentice Hall. USA
4. Internal material from Department

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Preporučena literatura

1. W. G. Pond, D. C. Church, K. R. Pond and P. A. Schoknecht (2004): Basic Animal Nutrition and Feeding, Wiley
2. Pilliner, S. 1999. Horse Nutrition and Feeding. Blackwell Science, Ltd., Uk
3. The Encyclopedia of Animal Nutrition (Ed, Fuller, M.F.). CABI Publishing, Wallingford, UK, 2004.
4. Hirakawa, D.A. 2002. Feeding and Nutrition of the Dog and Cat. 451-477. In:Livestock Feeds and Feeding (eds., Kellems, R.O., Church, D.C.). Prentice Hall, Upper Saddle River, New Jersey, USA.

Sličan predmet na srodnim sveučilištima

- Heimtierernährung, Universität für Bodenkultur Wien (BOKU), Austria
- Equine Reproduction and Nutrition, University College Dublin, Ireland
- Nutrizione e dietologia del cavallo sportivo in relazione alle principali patologie di origine alimentare, Universita degli studi di Milano, Italy
- Alimentazione degli animali da compagnia, Universita di Bologna, Italy

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