

## Horse using and breeding (152097)

### Nositelj predmeta

[prof. dr. sc. Ante Ivanković](#)

### Opis predmeta

This course will give insight into economic value of horse breeding in world and Croatia and how they have made such an impact on our own societal development. Briefly will be mentioned evolution and domestication of equides and insight into some breeds of horses will be given. Separate chapter will cover equine physiology, anatomy and myology with special overview on hoof and coat colors and markings in horses. For training and management it is very important to understand equid behavior (normal and abnormal behaviors) and movement (basic gaits), how equids are relate to their environment, and to learn to recognize basic equine senses and way of communication. Course will provide insight into equestrian sports (jumping, dressage, eventing, endurance, vaulting, driving, and etc.) with special stress on horse's welfare. One of the most important aspects of horses basic care is feeding management (understanding how and with what to feed these animals and how to evaluate animal's nutrient requirements). One of the topics in the course is maintaining equine health. The beginning of the lecture will start with the normal equine vital signs and then with administering first aid to animals, with emphasis typical diseases of horses (IAK, leptospirosis, genetic disorders, etc). Environmental and microclimate factors in stables will be mentioned in chapter Housing horses, which is in connection to their welfare and health status. As breeding is an important component of the equine industry, one chapter will be devoted to breeding management i.e. equine reproduction (AI., estrous cycles, pregnancy and parturition, lactation and etc.). At the end, the course will cover some basic terms considering selection in horse breeding (progeny and performance test), breeding methods and inbreeding. During this course students will visit Hippodrome and two stud farms within field work.

ECTS: **6.00**

E-učenje: **R1**

**Sati nastave: 60**

Predavanja: 32

Vježbe u praktikumu: 24

Seminar: 4

#### Izvođač predavanja

- [prof. dr. sc. Jelena Ramljak](#)
- [prof. dr. sc. Ante Ivanković](#)

#### Izvođač vježbi

- [prof. dr. sc. Jelena Ramljak](#)

#### Ocjenjivanje

Dovoljan (2): 60-70 %

Dobar (3): 71-80 %

Vrlo dobar (4): 81-90 %

Izvrstan (5): 90-100 %

## Vrsta predmeta

- Undergraduate studies / [BS Courses taught in English](#) (Izborni predmet, 2. semestar, 1. godina)

## Opće kompetencije

Upon successful completion of the course students will be able to independently conduct horse breeding management, have basic knowledge about horses anatomical and physiological system, focusing on reproductive system. They will be qualified to conduct breeding programs and mating schemes for selection purposes, thus being familiar with the procedure and methods of recording in horse breeding. Also, students will be able to integrate new theoretical and practical knowledges in the aim of raising the level of efficiency in horse production. Also, they will get knowledge about way of horse utilization in different sports disciplines respecting the principles of animal welfare.

## Oblici nastave

- **Lectures**  
theme - economic, social and environmental situation of horse status in Croatia and world wide / domestication of horse and wild ancestors / types and breeds of horses/ anatomy and physiology of horse / skeleton, muscles, neural system, blood system, digestive system, reproductive system, udder, behavior / horse reproduction of cattle (pregnancy, foaling, breeding of young animals) / horses nutrition / stables for horses / training horses / horses sports and disciplines / law and welfare
- **Laboratory practice/exercises**  
theme - recognition and description of horse breeds / taking body measurements / preparing horses for riding / horse training (lunging horse) / basic movements of horse (walk, trot, gallop) / making descriptive list (marks on horses body) / making feeding plan
- **Seminars**  
theme - current situation in horse breeding sector, breeds of horses, comparison of different horse sports and disciplines in world

## Ishodi učenja i način provjere

Ishod učenja	Način provjere
Identify unique characteristic of various breeds of horses	Discussions, Colloquium , written and oral exam, seminar work
Identify major external anatomical structures of the horse, contrast horse coat colors and coat markings	Discussions, Colloquium , written and oral exam, seminar work
Analyse how equids use their senses in relation to their environment and distinguish between normal and abnormal equine behaviors	Discussions, Colloquium , written and oral exam, seminar work
Identify the basic gaits of horses	Discussions, Colloquium , written and oral exam, seminar work
Analyse equine vital signs as indicators of health	Discussions, Colloquium , written and oral exam, seminar work
Analyse environmental and microclimate factors in stables	Discussions, Colloquium , written and oral exam, seminar work
Identify reproductive anatomy of mares and stallions	Discussions, Colloquium , written and oral exam, seminar work
Relate different mating systems used for equids	Discussions, Colloquium , written and oral exam, seminar work

## Način rada

### Obveze nastavnika

Present intended program of lectures in a simple and understandable way. Carry out the planned program of field exercises. Assign themes of seminars and assist students in their preparation. Assess the extent to which students have adopted educational objectives and achieve the learning outcomes and therefore grade students combining written and oral assessment (grades from insufficient (1) to excellent (5)).

### Obveze studenta

Attend a planned program of lectures and adopt intended knowledge by program. Actively participate in the discussion during lectures, exercises, seminar papers. Prepare and present the assigned topics of seminar papers. Take the partial exams or a final written exam as a condition for taking the oral final exam.

## Polaganje ispita

Elementi praćenja	Maksimalno bodova ili udio u ocjeni	Bodovna skala ocjena	Ocjena	Broj sati izravne nastave	Ukupni broj sati rada prosječnog studenta	ECTS bodovi
Lectures				32	32	1
Exercises				24	24	0.8
Seminar paper	8%			4	8	0.3
Written Test 1	26%	60-70 % 71-80 % 81-90 % 91-100 %	Dovoljan (2) Dobar (3) Vrlo dobar (4) Izvrstan (5)		33	1.1
Written Test 2	26%	60-70 % 71-80 % 81-90 % 91-100 %	Dovoljan (2) Dobar (3) Vrlo dobar (4) Izvrstan (5)		33	1.1
Final oral exam (required passed seminar paper and written tests. Students who failed written tests write the final exam from the whole module before oral exam).	40%	60-70 % 71-80 % 81-90 % 91-100 %	Dovoljan (2) Dobar (3) Vrlo dobar (4) Izvrstan (5)		50	1.7
Total	100%			60	180	6

Elementi praćenja	Opis	Rok	Nadoknada
Seminar paper	Grade: Subjective estimation of teacher		
Written Test 1	The first written test includes material from the first part of teaching : economic importance of equine breed, equine functional anatomy and physiology, behavior and care.	5th week	Enabled one correction of negative mark through additional test.
Written Test 2	The second written test includes material from the second part of teaching: training methods, equine competitions, feeding and housing management, health and welfare.	15th week	Enabled one correction of negative mark through additional test.
Final oral exam	Is consisted from 10 to 15 questions from each chapter. Student can approach to final exam after successfully passed seminar work and written exams.	Examination dates	

## Tjedni plan nastave

1. Economic value of horse breeding in world and Croatia; Horse Evolution and domestication
2. Horse breeds
3. Basic Equine Physiology, hoof anatomy
4. Horse osteology and myology, mechanical centers and axis
5. Equine Behavior and care
6. Test 1: written exam, Equine Training for sport and work
7. Equine competitions, seminar work, Equipment for horses.
8. Equine Feeding management (types of food and feeding plan)
9. Field work (Croatian hippodrome visit)
10. Field work (optional: stabled farm, private stabled farm)
11. Maintaining Equine Health and welfare
12. Housing horses
13. Breeding Management
14. Selection in horse breeding (conformation and condition, performance and progeny test, colors and marks on horses)
15. Test 2: written exam, seminar work

## Obvezna literatura

1. Davies Morel, Mina.C.G. (2005). Breeding horses. Blackwell Publishing Ltd.
2. Frape, D. (2004). Equine nutrition and feeding third edition. Blackwell Publishing Ltd.
3. Luxmoore, K. (2008). Introduction to Equestrian Sports. Landlinks Press. Australia.
4. Waran, N. (2003). The Welfare of Horses. Kluwer Academic Publishers, New York, Boston, Dordrecht, London, Moscow.



## **Preporučena literatura**

1. Bowling, A.T., Ruvinsky, A. (2000). The genetics of the horse. CABI Publishing. UK.
2. Blanchard, S. (2005). The power of positive horse training. Wiley Publishing, Inc., Hoboken, New Jersey.