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| **Title and Code** of the subject: **MTMAL7002A Physiology of production traits** | **ECTS Credit Points: 3** |
| **Type** of the subject: compulsory / optional | |
| **Ratio of theory and practice: 70/30** (credit%) | |
| **Type and number of classes per semester**: 28 hour(s) lecture and 14 hour(s) practice per **semester**  Number of teaching hours / week :2+1 (lecture and practice) | |
| **Type of exam**: exam / practical course mark: oral exam | |
| **Subject in the curriculum:** semester I. | |
| Preliminary requirements:- | |

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| **Summary of content - theory**: |
| Course objectives: the main target of the subject is to teach the interaction of farm animals’ production and the role of the environment. Students are going to learn the function of the digestive system; process of feed-digestion; the intermediary metabolism; characteristic of ruminant digestion, physiology of muscle system, biology of meat production. Other topics are the followings: the endocrine system. Physiology of reproduction. Physiology of milk production. Specialties and dysfunctions in metabolism of high-yield milk cows. Energy turnover and thermoregulation. Microclimate of the stall. The reproduction physiology of the hen. Production of other animal products for human consumption (e.g. rabbit meat, honey).   1. Endocrionology 1. 2. Endocrinology 2. 3. Endocrinology 3. 4. Stress in animal breeding. 5. Physiology of digestion. 6. Digestion of the monogastric animals. 7. Digestion of the ruminats. 8. Metabolic disorders in farm animals. 9. Physiology of the muscle system. Meat production. 10. Physiology of milk production. Specialties and dysfunctions in metabolism of high-yield milk cows 11. Reproduction 1. 12. Reproduction 2. 13. Physiology and disorders of egg production. 14. Consultation. |
| **Summary of content - practice**: |
| Skills to be learnt: after learning the basics, in practices we are going to teach the interaction of farm animals’ production and the role of the environment in practice. The Research Farm of the University is going to be visited and students will be able to develop a practical knowledge through these.     1. Heat stress. 2. Effect of stress on animal production. 3. Farm visit 4. Farm visit 5. Anatomy of the female reproductive tract 6. Anatomy of the male reproductive tract 7. Assisted reproductive techniques 8. Anatomy of the digestive system of a monogastric animal 9. Anatomy of the digestive system of a ruminant 10. Anatomy of a bird. 11. Normal meat quality and meat disorders. 12. Normal milk (SCC measurement) quality characteristics and mastitis. 13. Egg lamping 14. Consultation |
| **Literature, handbooks in English** |
| Biotechnology in Animal Husbandry (I.) - Beograd: Institute for Animal Husbandry, 2007  Biotechnology in Animal Husbandry (II.) - Beograd: Institute for Animal Husbandry, 2007  Pathways to Pregnancy and Parturition / P. L. Senger - : Current Conceptions, Inc., 2003  Ruminant Physiology / Cronjé, P. B. - Wallingford: CABI Publishing, 2004  The ethology of domestic animals an introductory text / Jensen, Per. - Wallingford: CABI Publishing, 2007  The science of animal husbandry / Blakely, J. - Reston: Reston Publishing Comp., 1989 |
| **Competencies gained** *(acc. to the Regulation on training and outcome requirements)* |
| 1. **Knowledge:**  * xx * xx  1. **Skills:**  * xx * xx  1. **Attitude:**  * xx  1. **Autonomy and responsibility:**  * xx |

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| **Responsible lecturer: Nora Dr. Pálfyné Dr. Vass** |
| **Other lecturer(s): ………..., ………………….** |

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| **Terms of course completion:** |
| 1. Taking part in at least 70% of the practices and lectures 2. Oral exam 3. PPT presentation |
| **Form of examination:** |
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| **Requirement(s) to get signature:** |
| 1. Taking part in at least 70% of the practices and lectures 2. PPT presentation of a choosen topic. |

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| **Exam questions:** |
| 1. Hormonal indicators of stress 2. Heat stress 3. Effect of stress on animal reproductive system 4. Disease susceptibility due to stress factors 5. Functions of the Nervous System 6. Types of neurons and Connections Between Neurons 7. What are conditioned reflexes? 8. The Autonomic Nervous System 9. Effects of the parasympathetic nervous system / sympathetic n. system 10. The Pituitary Gland And Hypothalamus 11. The Pineal Gland 12. The Thyroid Gland 13. The Adrenal Gland 14. The pancreas 15. The ruminant digestive system 16. Digestive tract functions – give some short examples 17. Calf digestive system 18. Rumen Acidosis 19. Acetonaemia (Ketosis) 20. Fatty Liver Syndrome 21. Displaced Abomasum in Cattle 22. Milk Fever (Hypocalcaemia) in Cows 23. Hypomagnesaemia (Grass Staggers/ Tetany) 24. Horse digestive system 25. Pig digestion 26. Colic types and causes 27. Anatomy and physiology of the male reproductive tract 28. Anatomy and physiology of the female reproductive tract 29. Assisted reproduction 30. Meat production 31. Milk production 32. Egg production |