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| **Title and Code** of the subject: **Animal reproduction MTMAL7005A** | **ECTS Credit Points: 3** |
| **Type** of the subject: **compulsory** / optional | |
| **Ratio of theory and practice: 66/33** (credit%) | |
| **Type and number of classes per semester**: 28 hour(s) lecture and 14 hour(s) practice per **semester**  **Number of classes per week: 2+1 (lecture and practice)** | |
| **Type of exam**: **exam** / practical course mark | |
| **Subject in the curriculum:** semester 2 | |
| Preliminary requirements:- | |

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| **Summary of content - theory**: |
| Course objectives:   1. Introduction of animal reproduction in mammals 2. Introduction of domestic animal reproduction 3. Attainment of puberty in females, ovarian development 4. Cyclic reproductive function of domestic mammals 5. Reproductive function of males, development and structure of sperm cells 6. Process of in vivo fertilization 7. Early and late embryonic development 8. Reproduction of cattle 9. Reproduction of small ruminants 10. Reproduction of the pig 11. Biotechnology in reproductive management 12. Necessary reproductive performance for profitable farm management |
| **Summary of content - practice**: |
| Skills to be learnt:     1. Introduction of on farm reproductive management 2. Introduction of different on farm mating methods 3. General introduction of artificial insemination 4. Rearing of breeding animals (gilts, heifers...) 5. Heating detection 6. Stimulation and synchronization of estrous 7. Basics of artificial insemination in cattle 8. Basics of artificial insemination in small ruminants 9. Basics of artificial insemination in pig 10. Control of pregnancy 11. Control of parturition 12. Neonatal problems and management |
| **Literature, handbooks in English** |
| 1. Philip Senger: Pathways to Pregnancy and Parturition (2017) 2. Ronal H.F. Hunter: Reproduction of Farm Animals (1982) 3. D.J.A. Cole & G.R. Foxcroft: Control of Pig Reproduction (2013) |
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| 1. **Knowledge:**  * Graduated students should be able to plan and organize the reproductive management work including artificial insemination of a dairy farm, a sheep or goat flock farm, a pig farm. * Graduated students should be familiar with the basics of a semen producing artificial insemination station * Graduated students should know the process of mammal fertilization, pregnancy and parturition in details.  1. **Skills:**  * Graduated students should be able to manage the daily work of a production dairy cattle, sheep and pig farm. * Graduated students should be able to do artificial insemination on a farm. |

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| **Responsible lecturer: Professor József Rátky, DVM, PhD, DSc** |

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| **Form of examination:** |
| Oral exam |
| **Requirement(s) to get signature:** |
| Presence at seminars. Students can be absent twice. |