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| **Title and code** of the subject: **Management and utilization of aquatic habitats. MTMVG7012A** | **Credit: 3** |
| **Type** of the subject: compulsory  |
| **Ratio of theory and practice:** (credit%) **40/60** |
| **Type and number of classes per semester**: 14 hours lecture and 28 hours practice per **semester** Number of classes per week: 1+2 |
| **Type of exam**: exam and personal presentation  |
| **Subject in the curriculum:** semester 2 |
| Preliminary requirements:- |

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| **Summary of content - theory**: |
| Course objectives:The general aim of the course is to transfer the basic knowledge necessary for the management of wetlands directly or indirectly affected by the water management practice of agriculture, which helps the agricultural water management engineer’s work in accordance with the regulation of the nature conservation authority and the conservation biological principles.Content:1. The basics of the conservation biology.
2. Natural conservation assessment, treatment.
3. The status and situation of wetlands in Hungarian and in international approaches.
4. The Hungarian and international law background of conservation of wetlands.
5. The conceptual bases of habitat management, its legal and economic background.
6. The types of river controls, their history and consequences of the interventions.
7. Revitalization of streaming waters.
8. Types of still waters, their protection and management.
9. Conservation and management of fountains, moorlands, marshes and small astatic and eustatic waters.
10. Conservation and management of reeds.
11. Conservational approaches of fish management in wild waters and fishponds.
12. Situation, conservation and management of soda pans.
13. Hunting and other recreational management of wetlands.
14. Sample projects on wetland management.
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| **Summary of content - practical**: Content:1. Field practice.
2. Field practice.
3. Field practice.
4. Field practice.
5. Field practice.
6. Field practice.
7. Field practice.
8. Field practice.
9. Field practice.
10. Field practice.
11. Student presentation.
12. Student presentation.
13. Student presentation.
14. Student presentation.
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| **Literature, handbooks in English**  |
| 1. Ian F. Spellerberg (1996): Conservation Biology. Longman. ISBN 0-582-22865-4
2. C. M. Finlayson et al. (edit) (2018): The Wetland Book, Springer, ISBN 978-90-481-3493-9.
3. Paul Keddy (2000): Wetland Ecology: Principles and Conservation ISBN 978-0521739672
4. Lauchlan H. Fraser &Paul Keddy (2005): The World’s Largest Wetlands: Ecology and Conservation.
5. Boros, Z. Ecsedi and J. Oláh (2013): Ecology and management of soda pans in the Carpathian Basin. Kiadó HTE, Balmazújváros. ISBN 978-963-08-9471-5
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| **Competencies gained**  |
| 1. **Knowledge:**
* Know the hydrological and biological aspects of the conservation of wetlands.
* The student is familiar with the nature conservation aspects and ongoing processes of wetland management and utilization, knows and recognizes the existing relationships between them and farming practices.
1. **Skills:**
* Able to use the ecological approach in wetland management and use these during farming.
1. **Attitude:**
* Committed to environmental and nature friendly, sustainable use of natural resources.
* Recognizes the professional values, susceptible to the use of effective methods and tools.
* Open and receptive to knowledge and the practical application of modern and innovative procedures.
1. **Autonomy and responsibility:**
* Partner in professional and interdisciplinary collaboration.
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| **Responsible lecturer: Dr. Lajos Kozák****Other lecturers: László, Kövér, Ph.D. senior lecturer** |

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| **Terms of course completion:** |
| Being active during the classes & group works. |
| **Form of examination:** |
| Essay type written exam. |
| **Requirement(s) to get signature:** |
| Participation at the study trips, give a presentation of a case study. |

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| **Exam questions:** |
| 1. Describe the concept and principles of conservation biology!
2. Describe the types of nature conservation’s efforts!
3. Describe the legal and economic background of wetland conservation, the Ramsar Convention!
4. Describe the main types of waters, their habitats, their wildlife!
5. Describe the types of river regulation and their consequence!
6. Describe the opportunities of spring protection, its management & utilization!
7. Describe the opportunities of creek protection, its management & utilization!
8. Describe the opportunities of bog protection, its management & utilization!
9. Describe the opportunities of marsh protection, its management & utilization!
10. Describe the opportunities of pebble pond protection, its management & utilization!
11. Describe the opportunities of reeds protection, its management & utilization!
12. Describe the conservation aspects of fish farming & aquaculture! waters!
13. Describe the past and present of complex floodplain farming!
14. Describe the situation of saline lakes, their conservation, management and utilization opportunities!
15. Describe how and which way it is possible to utilize wetlands for hunting and other recreational purposes!
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