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| **Title and Code** of the subject: **Nutrition and product quality MTMAL7031A** | **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 teaching hours / 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: Nutrition can both improve and deteriorate the quality of animal products. In this subject we will review the biological mechanisms which result in the altered quality, and provide research evidence regarding the effect of nutrition. It is obvious that we will discuss meat, milk and egg production. But as an extra we will touch also wool, work (equine) and honey, as these are also the products of animals (bees). 1. Introduction
2. Nutrition and carcass quality
3. Nutrition and meat quality
4. Lipids in the feed and in the body
5. Nutrition and lipid quality
6. Milk synthesis
7. Nutrition and milk qulaity
8. Nutrition and wool quality
9. Nutrition and honey quality
10. Nutrition and the capability of work
11. Hazardous materials in the food chain: mycotoxins
12. Hazardous materials in the food chain: dioxins, GMO
13. Other factors affecting product quality
14. Consultation
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| **Summary of content - practice**: |
| Skills to be learnt: The most common quality measurements will be presented. 1. Assessment of meat quality
2. Assessment of meat quality
3. Assessment of meat quality
4. Assessment of meat quality
5. Assessment of milk quality
6. Assessment of milk quality
7. Assessment of milk quality
8. Assessment of milk quality
9. Assessment of egg quality
10. Assessment of egg quality
11. Assessment of wool quality
12. Assessment of wool quality
13. Assessment of workload
14. Assessment of honey quality
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| **Literature, handbooks in English**  |
| 1. Guoyao (2018) Principles of animal nutrition, CRC Press
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| **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: Csaba Szabo PhD, associate professor** |
| **Other lecturer(s): -** |

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| **Terms of course completion:** |
| 1. Completing assignments / exercises
2. Submitting essay
3. Giving presentation
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| **Form of examination:** |
| Essay questions |
| **Requirement(s) to get signature:** |
| Not more than 3 absence from class. |

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| **Exam questions (examples):** |
| 1. What are the functions of triglycerides?
2. How amino acid to energy ratio affects the protein and fat deposition in pigs?
3. How would you term meat quality?
4. Meat quality anomalies in pigs and beef cattle.
5. Give some figures about the composition of milk (consider physiological and species differences)
6. Describe the process of egg formation.
7. Describe the Ca metabolism of the laying hen.
8. List the most important mycotoxins and its animal and human concerns.
9. How boar taint can be influenced by nutrition?
10. How nutrition can affect wool quality?
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