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| Study Programme: Food Engineering |
| Course Unit Title: Meat processing technology |
| Course Unit Code: O7TKXO3 |
| Name of Lecturer(s): Full professor Vladimir Tomović, PhD |
| Type and Level of Studies: Bachelor Academic Degree |
| Course Status (compulsory/elective): Compulsory |
| Semester (winter/summer): Winter |
| Language of instruction: English |
| Mode of course unit delivery (face-to-face/distance learning): Face-to-face |
| Number of ECTS Allocated: 6 |
| Prerequisites: None |
| <p>Course Aims:</p> <p>Introducing students with main technological operations in meat processing with respect to the principles of hygiene, as well as with influence of production factors on the quality of meat products.</p> |
| <p>Learning Outcomes:</p> <p>Achieving basic knowledge and acquiring certain skills necessary for work in the meat processing industry, as well as in scientific, professional, control, project and pedagogical institutions.</p> |
| <p>Syllabus:</p> <p><i>Theory</i></p> <p><i>Definition and categories of processed meat products. Basic properties of characteristic groups and subgroups of meat products. Meat as raw material and non-meat ingredients for meat processing. Natural and artificial casings and containers for meat products. Planning and designing of meat processing plant. Freezing of meat. Meat processing operations: mincing, homogenizing, emulsifying, mixing and filling - salting and curing - smoking - drying and ripening - heating treatment. Production of ground meat, semi-finished products of meat, sausages (raw, cooked, semi-dry, dry), smoked meat products, dry meat products, canned meat products, bacon and animal fats. Sensory, physical, chemical and microbiological quality parameters and quality criteria for meat products. Egg production and processing. Fish production and processing.</i></p> <p><i>Practice</i></p> <p><i>Good manufacturing and good hygienic practices in meat processing plant. Categories of non-meat ingredients. Qualitative and quantitative determination of additives and ingredients for meat products. Preparation and determination of physico-chemical quality of wet brine. Presentation of meat processing equipment and operations. Determination of meat and non-meat ingredients in processed meats. Production of meat products in laboratory and industrial conditions. Technological calculations and material balances in meat processing technology. External and internal egg quality determination.</i></p> |
| <p>Required Reading:</p> <p>R. A. Lawrie, D. A. Ledward: Lawrie's meat science (7th ed.), Woodhead Publishing Ltd. and CRC Press LLC, Cambridge, England, 2006.</p> <p>W. K. Jensen, D. Carrick, M. Dikeman (Eds.): Encyclopedia of meat sciences, Elsevier Ltd, Oxford, England, 2004.</p> <p>J. Kerry, J. Kerry, D. Ledward: Meat processing - Improving quality. Woodhead Publishing Limited and CRC Press LLC,</p> |

Cambridge, England, 2002.

F. Toldrá, Y. H. Hui, I. Astiasarán, W. -K. Nip, J. G. Sebranek, E. -T. F. Silveira, L. H. Stahnke, R. Talon (Eds.):

Handbook of fermented meat and poultry, Blackwell Publishing Ltd, Oxford, UK, 2007.

R. Tarté (Ed.): Ingredients in meat products - Properties, functionality and applications, Springer, New York, 2009.

Weekly Contact Hours: 6

Lectures: 3

Practical work: 3

Teaching Methods:

Interactive lectures, group or individual consultations, experimental exercises in laboratory and in plant.

Knowledge Assessment (maximum of 100 points):

| Pre-exam obligations | points | Final exam | points |
|-----------------------------|--------|-------------------|--------|
| Active class participation | | written exam | - |
| Practical work | 20 | oral exam | 30 |
| Preliminary exam(s) | 50 | | |
| Seminar(s) | - | | |

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.