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| **Subject**   | **MEAT PROCESSING TECHNOLOGY**   |
| **Type**   | **Semester**  | **ECTS**  | **Code**  |
|                             O   |             5  |         5 (2+2)  |       130ACH159  |
| **Course Lecturer**  | **Xhavit F. Bytyçi**   |
| **Course Assistant**  | **Ardit Avdimetaj**   |
| **Course Tutor**  |   |
| **Aims and Objectives**  |  The course "Meat processing technology" offers the main concepts in establishing the theoretical bases: knowledge of the chemical, physical and especially organoleptic properties of mammalian meat; adequate measures for adequate and safe transport of animals for slaughter, reducing the consequences of transport; treatment of animals before slaughter and humane slaughtering procedures in slaughterhouse facilities to the benefit of the carcass.    Also, to recognize the actions by which the meat obtained from slaughtered animals is regular as a raw material for the production of meat products and that through the recognition of the stages of meat maturation, the classification and categorization of meat, and the evaluation of meat with various pathologies. In particular, to know the methods of preserving meat, by which action the lifespan of the meat is extended.  To have knowledge on the technological processes of special meat products such as: boxed meat technology, salami, ham, and traditional mammal meat products. In addition to the technological processes, I know the methods for the organoleptic, chemical and microbiological control of the acquired products and evaluate their quality. animal. Also understand technological processes, control methods and quality assessment of poultry and fish products   |
| **Learning outcomes**  | After completing this course (subject), the student will be able to:  − To know the histological construction, chemical, physical and organoleptic properties of mammal meat as well as the impact of transport, the treatment of animals before slaughter as well as the humane slaughtering procedures of animals in licensed slaughterhouses.  − To understand the importance of meat maturation, the classification and categorization of meat as well as the evaluation of meat with different pathologies in order to avoid the use of non-regular meat for mammal meat products.  − Understands and compares the processes and actions during the technological process of meat products such as: preserves, salami, hams, traditional products from mammal meat as well as technological processes during the processing of poultry and fish products.  |
| **Alignment of** **Course’s** **Learning** **Outcomes to** **Programs Learning** **Outcomes.**  |   **1. Application of theoretical knowledge:** - Possession and understanding of advanced knowledge about: the properties of mammalian, poultry and fish meat, the profitability of meat in slaughterhouses and its control, as well as the technological steps during the processing of meat products such as: preserves, salami, ham, products traditional, including meat by-products. - Application of advanced techniques, methods, tools and instruments in the processing, analysis and evaluation of the quality of meat and meat products, ensuring compliance with food laws and regulations.  **2. Evaluation and critical analysis**: - Analyzing, evaluating and interpreting scientific data on raw meat and meat products, including research literature, ensuring that findings are innovatively and ethically communicated to a diverse audience, from peers to the public wide. • Demonstration of understanding and technical competence in the basic principles of meat and meat products, distinguishing between different meat products and the food and health industry implications. • Organize and convey technical and relevant information effectively, orally and in writing, ensuring clarity and accuracy to a diverse audience, including supervisors, peers and customers. • Execution and direction of research projects in food science, navigating the complexities of nutrition and exercise science, particularly the benefit and processing of meat into its products, taking into account the ethical, cultural and environmental dimensions. • Interpreting, comparing and classifying findings from meat and meat product research, ensuring that decisions and results are consistent with established standards and best practices. • Autonomous exercise and initiatives in identifying the interactions related to the quality of meat products and the factors that can affect their qualitative devaluation by designing optimal measures to preserve the quality of these subjects. • Addressing and solving complex problems related to the profitability of meat products using integrated knowledge from different fields of food science.  **3. Development of practical skills:** • Interpreting, comparing and classifying meat and meat products research findings, ensuring that decisions and results are consistent with established standards and best practices. • Exercise autonomy and initiatives in identifying the interactions related to the quality of meat and meat products as well as the factors that can affect their qualitative devaluation by designing optimal measures for maintaining the quality of these products. • Addressing and solving complex problems related to the profitability of meat and its products through the use of integrated knowledge from different fields of food science.  **4. Evidence-based approach:** • Addressing and solving complex problems related to the profitability of meat and meat products using integrated knowledge from different fields of food science • Commitment to continuous learning, staying up-to-date with the latest trends, challenges and innovations in the field of the study of meat and its products and their quality assessment exercises.      |
| **Content**  | ***Content of Lectures/Weekly Plan***  | ***Week***  |
| Chemical and physical properties of meat  | 1  |
| Transport of animals for slaughter and slaughterhouse facilities  | 2  |
| Procedures for slaughtering animals in slaughterhouses  | 3  |
| Maturation, classification and categorization of meat  | 4  |
| Assessment of meat for irregularities  | 5  |
| Meat preservation methods  | 6  |
| Presentation of Seminars  | 7  |
| Canning of meat in cans  | 8  |
| Sausages  | 9  |
| Ham and traditional products  | 10  |
| Poultry meat processing technology  | 11  |
| Fish meat processing technology  | 12  |
| By-products technology  | 13   |
| Presentation of case studies  | 14  |
|   | Final assessment  | 15  |
| **Teaching/** **Learning** **methods**  | **Learning activity**  | **Weight %**  |
|  **1. Lecture: 15%** - Goal: To present the main concepts, models and theories in the management of knowledge in raw materials of animal origin -Relevant to: Building fundamental understanding and providing a theoretical framework for the subject. **2. Case studies and analysis: 25%** - Goal: To apply the theoretical knowledge in practical scenarios in sample analyzation -Important for: Critical evaluation of the effectiveness of knowledge management in different contexts and reflection on practical examples. **3. Group discussions and seminars: 20%** -Goal: To encourage interactive learning, exchange of ideas and development of critical thinking. -Relevant for: In-depth discussion of different models and theories and reflection on their application in raw materials of animal origin1.  **4. Project work: 20%** - Goal: To promote creativity, application of practical skills and cooperative learning. -Important for: Developing new and creative ways of knowledge management in the course contexts of animal raw materials and identifying barriers and facilitators for knowledge management. **5. Assignments and Research Papers: 10%** -Goal: To increase research skills and the ability to critically analyse information.   -Relevant to: In-depth study of specific topics within knowledge management, increasing understanding through research. **6. Guest lectures and seminars: 10%** - Purpose: To provide exposure to industry experts and practical knowledge. -Relevant for: Gaining different perspectives on management practices and challenges   knowledge in raw materials of animal origin    |
| **Literature/References**  |  * **Xhavit Bytyçi (2023) “Teknologjia e përpunimit të mishit” Prishtinë,**
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* Bijo, B. (2007): Higjiena e mishit dhe Thertoreve, Universiteti Bujqësor I Tiranës.
* Shoshi, N. (2014): Higjiena veterinare, Universiteti Bujqësor I Tiranës.
* Prof.dr Ahmed Smajić,(2014), Prerada mesa,  Poljoprivredno-prehrambeni fakultet, Sarajevo,
* Prof. dr Jovan, Rašeta Prof. dr Miroslav Dakić,(1984) Higijena mesa zivine I jaja,  Veterinarski Fakultet, Beograd,
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* Miroslav Jůzl , Šárka Nedomová (2015): Quality of animal products, Mendel University,  in Brno
* Leo M. L. Nollet (2012):  Handbook of Meat, Poultry and Seafood Quality, Department of Engineering Sciences Hogeschool Gent, Ghent, Belgium
* Leo M.L. Nollet and Fidel Toldrá  ( 2011) : Safety analysis of foods of animal origin
* Fidel Todra (2010) : Handbook of meat Processing
* - Jhari Sahoo, Manish Kumar Chatli (2016) Meat, Poultry and Fish Technology, New Delhi
* Blackie Academi c and Professional (Hall, G.M..); Fish processing technology

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