

MFT 205: Technology of Meat ,Fish and Poultry Products

Teaching Scheme Lectures: 3hrs./week Tutorials: 1 hr./week Credits: 4	Examination Scheme Internal Assessment Marks [IAM]: 30 [Class Test: 12, Teachers assessment: 6, Attendance: 12] End Semester Marks [ESM]: 70
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Course Objectives:

1. To give an overview about meat and poultry products industry, its composition, its aging and related phenomena.
2. To give knowledge about eating quality and meat analogues.
3. To impart knowledge about egg and its preservation methods.
4. To impart knowledge poultry meat.
5. To impart knowledge about fish and its processing.

Detailed Syllabus

MODULE 1

Status and scope of meat industry in India; Structure and physico-chemical properties of Muscle meat: composition and nutritive value, conversion of muscle into meat, post mortem changes in meat, rigor mortis, cold shortening, pre-rigor processing; stunning and slaughtering methods.

Aging of meat, meat tenderization- natural and artificial methods; cooking methods for meat: roasting, frying and braising; storage and preservation of meat: chilling, freezing, curing, smoking, dehydration, freeze-drying, irradiation, canning.

MODULE 2

Cooking, palatability and eating quality of meat, microbial spoilage of meat; restructured meat products (sausages), meat analogs; meat industry by products: importance and applications; intermediate moisture and dried meat products; meat plant hygiene and good manufacturing practices; packaging of meat products.

MODULE 3

Egg: Structure, composition and nutritive value of eggs, Storage and shelf life problems
Quality evaluation of eggs: international and external quality evaluation, candling, albumen index, Haugh unit, yolk index etc.

Egg preservation: grading of eggs, whole egg preservation, pasteurization, dehydration, freezing, egg products: egg powder, value added egg products (e.g., Meringues and Foams etc.), packaging of egg and egg products.

MODULE 4

Poultry products: types, chemical and nutritive value of poultry meat, slaughtering and evaluation of poultry carcasses; poultry cut-up parts and meat/bone ratio; preservation, grading and packaging of poultry meat.

MODULE 5

Fish processing: factors affecting quality of fresh fish, fish dressing, chilling, freezing, glazing, salting and canning of fish; manufacturing of fish paste, fish oil, fish protein concentrate and fish meal; by-products of fish industry and their utilization. Shell fish processing.

Suggested readings

1.	BD Sharma. Meat and Meat Products Technology, Jaypee Brothers Medical Publishers. 1999.
2.	Kerry J. et al. 2002. Meat Processing. Woodhead Publ. CRC Press.
3.	Pearson AM & Gillett, TA. 1996. Processed Meat. 3rd Ed. Chapman & Hall.
4.	Hui YH. 2001. Meat Science and Applications. Marcel Dekker. 32

Course Outcomes:

After completing the course, students will be able to:

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| 1. Understand about meat and poultry products industry, its composition, its aging and related phenomena. |
| 2. Understand the various eating quality and meat industry products. |
| 3. Understand about the egg and its preservation methods. |
| 4. Understand the poultry and its products preservation. |
| 5. Understand the basic of fish processing. |
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