

## **COURSE OUTCOMES: M.Sc. FOOD TECHNOLOGY**

### **COURSE OUTCOMES: SEMESTER 1**

**COURSE CODE**                    FTC 101  
**COURSE TITLE**                    FOOD BIOCHEMISTRY AND NUTRITION  
**NUMBER OF CREDITS**            3

#### **COURSE OUTCOMES**

1. Students will be well-versed with the chemical constituents of food, their interactions during cooking, and evaluation of taste characteristics of food
2. Students will also be able to classify foods and nutrients, and describe their metabolism in the human body

**COURSE CODE**                    FTC 102  
**COURSE TITLE**                    FOOD MICROBIOLOGY AND FOOD SAFETY STANDARDS  
**NUMBER OF CREDITS**            3

#### **COURSE OUTCOMES**

1. Students will be able to identify different groups of microorganisms associated with food, their activities, destruction and detection in food
2. Students will gain an understanding of industrial standards concerning safe food production and the existent national and international systems that ensure food quality

**COURSE CODE**                    FTC 103  
**COURSE TITLE**                    FUNDAMENTALS OF FOOD PRESERVATION AND PROCESSING  
**NUMBER OF CREDITS**            3

#### **COURSE OUTCOMES**

1. Students will be acquainted with the industrial techniques used to preserve and process foods, extend their shelf-life and improve their palatability characteristics
2. Students will be familiarized with advances in food processing techniques

**COURSE CODE**                    FTC 104  
**COURSE TITLE**                    FOOD PACKAGING AND FOOD LAWS  
**NUMBER OF CREDITS**            3

**COURSE OUTCOMES**

1.        Students will be acquainted with the principles, methods, and materials used for safe packaging of foods
2.        Students will be familiarized with national and international laws governing food production, import and export

**COURSE CODE**                    FTC 105  
**COURSE TITLE**                    LAB IN FOOD ANALYSIS AND FOOD MICROBIOLOGY  
**NUMBER OF CREDITS**            2

**COURSE OUTCOMES**

1.        Students will be able to analyze foods for their nutritional content
2.        Students will be competent in laboratory procedures required for determining the microbiological safety of foods

**COURSE CODE**                    FTC 106  
**COURSE TITLE**                    LAB IN FOOD PROCESSING AND QUALITY MANAGEMENT  
**NUMBER OF CREDITS**            2

**COURSE OUTCOMES**

1.        Students will possess the basic practical skills required to prepare foods, and evaluate raw and processed foods
2.        Students will be able to evaluate food establishments for their consumer acceptability and sanitation attributes

## **COURSE OUTCOMES: SEMESTER 2**

**COURSE CODE**                    FTC 201

**COURSE TITLE**                FOOD BIOTECHNOLOGY AND INDUSTRIAL FOOD WASTE MANAGEMENT

**NUMBER OF CREDITS**        3

### **COURSE OUTCOMES**

1. Students will be acquainted with the fundamentals of Biotechnology and its application in food processing, nutrition, fermentation, and waste utilisation
2. Students will gain an understanding of waste generated from food industries and methods of by-product utilization

**COURSE CODE**                    FTC 202

**COURSE TITLE**                NORMAL AND CLINICAL NUTRITION

**NUMBER OF CREDITS**        3

### **COURSE OUTCOMES**

1. Students will be knowledgeable about the nutritional requirements at various stages of human growth and development.
2. Students will gain an understanding of the dietary modifications necessitated by disease and disorder.

**COURSE CODE**                    FTC 203

**COURSE TITLE**                FOOD ENGINEERING

**NUMBER OF CREDITS**        3

### **COURSE OUTCOMES**

1. Students will be acquainted with the principles and processes of food engineering
2. Students will gain understanding about the basic operations and calculations of importance in the food industry

**COURSE CODE**                    FTC 204  
**COURSE TITLE**                    RESEARCH METHODOLOGY AND STATISTICS  
**NUMBER OF CREDITS**            3

**COURSE OUTCOMES**

1.        Students will be acquainted with the principles and methods of scientific research
2.        Students will be familiarized with statistical methods for data analysis
3.        Students will develop scientific writing skills

**COURSE CODE**                    FTC 205  
**COURSE TITLE**                    LAB IN FOOD BIOTECHNOLOGY AND INDUSTRIAL FOOD WASTE MANAGEMENT  
**NUMBER OF CREDITS**            2

**COURSE OUTCOMES**

1.        Students will be able to experiment with and observe the outcomes of biotechnological techniques propagated in food industries
2.        Students will be provided a practical understanding of industrial food waste management processes

**COURSE CODE**                    FTC 206  
**COURSE TITLE**                    LAB IN CLINICAL NUTRITION AND DIETETICS  
**NUMBER OF CREDITS**            2

**COURSE OUTCOMES**

1.        Students will be competent in planning diets for different age groups and physiological conditions
2.        Students will gain an understanding of the link between diet therapy and food technology

### **COURSE OUTCOMES: SEMESTER 3**

**COURSE CODE** FTO 101

**COURSE TITLE** CEREAL, LEGUME, AND OILSEED PROCESSING TECHNOLOGY

**NUMBER OF CREDITS** 3

#### **COURSE OUTCOMES**

1. Students will be acquainted with the major agricultural crops of India and their processing techniques
2. Students will gain an understanding of the nutritional value differences as a result of crop processing

**COURSE CODE** FTO 102

**COURSE TITLE** LAB INCEREAL, LEGUME, AND OILSEED PROCESSING TECHNOLOGY

**NUMBER OF CREDITS** 1

#### **COURSE OUTCOMES**

1. Students will be familiar with elementary analytical methods required to determine the quality of agricultural produce
2. Students will be acquainted with rudimentary processing of pulses and oilseeds

**COURSE CODE** FTO 103

**COURSE TITLE** MEAT, POULTRY, FRESHWATER, AND MARINE FOOD TECHNOLOGY

**NUMBER OF CREDITS** 3

#### **COURSE OUTCOMES**

1. Students will be acquainted with the types and grades of meat, poultry, and sea foods
2. Students will be familiarized with processing techniques used for the production of commercial meat, poultry, and sea foods

**COURSE CODE** FTO 104

**COURSE TITLE** LAB IN MEAT, POULTRY, FRESHWATER, AND MARINE FOOD TECHNOLOGY

**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**

1. Students will be practically competent in analysing characteristics of importance in meats, poultry, and sea foods
2. Students will be able to formulate and prepare processed meat, poultry, and sea food products

**COURSE CODE** FTO 105

**COURSE TITLE** BAKERY, CONFECTIONERY, AND CONVENIENCE FOOD TECHNOLOGY

**NUMBER OF CREDITS** 3

**COURSE OUTCOMES**

1. Students will be acquainted with the principles of bakery and confectionery
2. Students will be familiar with processing techniques, quality parameters, and nutritional comparisons of baked products

**COURSE CODE** FTO 106

**COURSE TITLE** LAB IN BAKERY, CONFECTIONERY, AND CONVENIENCE FOOD TECHNOLOGY

**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**

1. Students will be acquainted with techniques involved in advanced baking and confectionery
2. Students will be familiar with quality analysis procedures of baked products

**COURSE CODE** FTO 107

**COURSE TITLE** SPICE AND PLANTATION CROP TECHNOLOGY

**NUMBER OF CREDITS** 3

**COURSE OUTCOMES**

1. Students will be acquainted with the types of plantation crops and their processing techniques
2. Students will gain an understanding of the processing of spices and condiments

**COURSE CODE** FTO 108

**COURSE TITLE** LAB IN SPICE AND PLANTATION CROP TECHNOLOGY

**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**

1. Students will be acquainted with quality analysis of spices and plantation crops
2. Students will be practically competent in rudimentary spice processing

**COURSE CODE** FTO 109

**COURSE TITLE** DAIRY TECHNOLOGY

**NUMBER OF CREDITS** 3

**COURSE OUTCOMES**

1. Students will be acquainted with the multitude types of dairy products
2. Students will be familiar with the processing techniques specific to the dairy industry

**COURSE CODE** FTO 110

**COURSE TITLE** LAB IN DAIRY TECHNOLOGY

**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**

1. Students will be acquainted with quality control tests specific to the dairy industry
2. Students will be competent in practically performing fundamental dairy processing techniques

**COURSE CODE** FTO 111

**COURSE TITLE** BEVERAGE TECHNOLOGY

**NUMBER OF CREDITS** 3

**COURSE OUTCOMES**

1. Students will be acquainted with the particulars of manufacturing industrial beverages
2. Students will be familiar with the quality requirements of bottled beverages

**COURSE CODE** FTO 112

**COURSE TITLE** LAB IN BEVERAGE TECHNOLOGY

**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**

1. Students will be acquainted with the production of industrial beverages
2. Students will be familiar with the quality control tests of importance in the beverage industry

**COURSE CODE** FTO 113

**COURSE TITLE** NUTRACEUTICALS AND HEALTH FOODS

**NUMBER OF CREDITS** 3

**COURSE OUTCOMES**

1. Students will be familiar with the emerging trend of nutraceuticals with respect to the types, mechanisms of action, and manufacture of selected nutraceuticals
2. Students will gain knowledge about nutraceutical product development, clinical testing and toxicity aspects

**COURSE CODE** FTO 114

**COURSE TITLE** LAB IN NUTRACEUTICALS AND HEALTH FOODS

**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**



1. Students will be familiar with extraction procedures of nutrients and functional components from foods
2. Students will gain competency in developing food labels

**COURSE CODE** FTO 115  
**COURSE TITLE** PRE- AND POST-HARVEST TECHNOLOGY OF HORTICULTURE PRODUCE  
**NUMBER OF CREDITS** 3  
**COURSE OUTCOMES**

1. Students will be acquainted with the principles and methods of preserving fruits and vegetables
2. Students will be familiar with the processing techniques of horticultural produce

**COURSE CODE** FTO 116  
**COURSE TITLE** LAB IN PRE- AND POST-HARVEST TECHNOLOGY OF HORTICULTURE PRODUCE  
**NUMBER OF CREDITS** 1  
**COURSE OUTCOMES**

1. Students will be acquainted with fundamental fruit and vegetable processing techniques
2. Students will be familiar with quality control tests specific to the horticulture industry

**COURSE CODE** FTO 117  
**COURSE TITLE** SNACK FOOD TECHNOLOGY  
**NUMBER OF CREDITS** 3  
**COURSE OUTCOMES**

1. Students will be acquainted with the principles involved in the manufacture of commercial snack foods
2. Students will be familiar with the equipment of importance in the snack food industry

**COURSE CODE** FTO 118  
**COURSE TITLE** LAB IN SNACK FOOD TECHNOLOGY  
**NUMBER OF CREDITS** 1  
**COURSE OUTCOMES**

1. Students will be practically acquainted with the processing techniques utilized for snack foods
2. Students will be familiar with the evaluation methods for the quality of snack foods

**COURSE CODE** FTO 119  
**COURSE TITLE** FOOD ADDITIVES, ADULTERATION AND TOXICOLOGY  
**NUMBER OF CREDITS** 3

**COURSE OUTCOMES**

1. Students will be acquainted with the additives relevant to the processed food industry for shelf life extension, processing support and sensory appeal
2. Students will be familiar with microbial, chemical and natural toxicants and allergens indigenously present and developed during food processing

**COURSE CODE** FTO 120  
**COURSE TITLE** LAB IN FOOD ADDITIVES, ADULTERATION AND TOXICOLOGY  
**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**

1. Students will be familiar with the isolation of various biopolymers from food resources
2. Students will be familiar with the practical aspects of toxin-free foods

## **COURSE OUTCOMES: SEMESTER 4**

**COURSE CODE** FTO 121

**COURSE TITLE** ENTREPRENEURSHIP AND BUSINESS MANAGEMENT

**NUMBER OF CREDITS** 3

### **COURSE OUTCOMES**

1. Students will be familiar with business models and their planning and development
2. Students will be acquainted with the principles and intricacies of managing an enterprise

**COURSE CODE** FTO 122

**COURSE TITLE** LAB IN ENTREPRENEURSHIP AND BUSINESS MANAGEMENT

**NUMBER OF CREDITS** 1

### **COURSE OUTCOMES**

1. Students will be able to practically develop a business model
2. Students will be competent in marketing a business idea

**COURSE CODE** FTO 123

**COURSE TITLE** FOOD PRODUCT DEVELOPMENT AND INTERNATIONAL TRADE

**NUMBER OF CREDITS** 3

### **COURSE OUTCOMES**

1. Students will be acquainted with the techniques of Product Development and International Trade for the food sector
2. Students will gain knowledge of intellectual property rights (IPR), related protection systems, their significance and use of IPR as a tool for wealth and value creation in a knowledge-based economy

**COURSE CODE** FTO 124  
**COURSE TITLE** LAB IN FOOD PRODUCT DEVELOPMENT AND INTERNATIONAL TRADE  
**NUMBER OF CREDITS** 1

**COURSE OUTCOMES**

1. Students will be able to develop a new food product
2. Students will be able to develop marketing strategies for a new food product

**COURSE CODE** FTO 125  
**COURSE TITLE** FIELD TRIPS/ STUDY TOUR  
**NUMBER OF CREDITS** 2

**COURSE OUTCOMES**

1. Students will be provided practical understanding of theoretical concepts
2. Students will be able to observe, first hand, work flow and processes in food industries and associated enterprises

**COURSE CODE** FTO 126  
**COURSE TITLE** INTERNSHIP  
**NUMBER OF CREDITS** 8

**COURSE OUTCOMES**

1. Students will be exposed to an industrial set-up
2. Students will be able to observe, first hand, work flow and processes in food industries and associated enterprises

**COURSE CODE**                    FTD  
**COURSE TITLE**                    DISSERTATION  
**NUMBER OF CREDITS**            8

**COURSE OUTCOMES**

1. Students will be able to explore, independently, topics of research importance related to the food industry
2. Students will be empowered to design a research study based on the principles of scientific research
3. Students will be trained in interpreting, analyzing, and reporting collated data related to a topic of study
4. Students will be endowed with skills required for scientific writing and publication