SNDT Women's University

P.G. Department of Food Science and Nutrition

Name of Program: Master of Food Science and Nutrition (FSN)

Program Outcomes

1. To impart knowledge and develop capacities of the students through state of the art higher education in the areas of Human Nutrition and Food Science, Food Safety and Quality, Food Product Development.
2. To develop students to become professionals in these and related areas who can work effectively and efficiently in academics, research, food industry, training, extension and community service.
3. To develop capacities and abilities and enable them to pursue higher education and research in Food Science and Human Nutrition.

Course Outcome		
Food Science and Nutrition-Semester 1		
Course Code	**Course Name**	**Courses Outcomes**
16101	Nutritional Biochemistry	1. Augment the knowledge of biochemistry acquired at the undergraduate level 2. Understand the mechanisms adopted by the human body for regulation of metabolic pathways 3. Develop an insight into interrelationships between various metabolic pathways 4. Understand integration of cellular level metabolic events to nutritional disorders and imbalances. 5. Become proficient for specialization in nutrition
16102	Macronutrients	1. Gain in-depth knowledge of the physiological and metabolic role of macronutrients, fat soluble vitamins and electrolytes and their importance in human nutrition. 2. Enable the understanding of basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs. 3. Familiarize with the recent advances in nutrition and apply this knowledge in planning for public health programmes.
16103	Food Microbiology and Safety-Th	1. Gain deeper knowledge of role of micro-organisms in humans and environment.

		2. Understand the importance of micro-organisms in food spoilage and to learn advanced, techniques used in food preservation. 3. Understand the recent procedures adopted in various food operations to prevent food- borne disorders and legal aspects involved in these areas.
16104	Food Microbiology and Safety-Pr	1. Gain deeper knowledge of role of micro-organisms in humans and environment. 2. Understand the importance of micro-organisms in food spoilage and to learn advanced, techniques used in food preservation. 3. Understand the recent procedures adopted in various food operations to prevent food- borne disorders and legal aspects involved in these areas.
16105	Instrumentation and Methods of Investigation	1. Understand the principles involved in different methods of investigation 2. Understand the principles of various analytical techniques available for research in food science and nutrition. 3. Understand the applications, strengths and limitations of different methods. 4. Be familiar with the applications of the above techniques. 5. Become efficient in the use of some of the most commonly used techniques and instruments in High quality research.
16191	Advanced Nutrition Pr	This course will enable students to use, apply and interpret various methods for assessment of nutritional status, assessment of dietary/nutrient intakes, physical activity and energy expenditure, and interpret tests used for lipid profile and glycemic control.
Semester II		
00201	Research Methodology	1. Develop a scientific approach and know the processes of research 2. Develop the competence for selecting methods and tools appropriate for research topics 3. Understand concepts of statistical measures of central tendency, dispersion, variability and probability
16202	Food Science and Chemistry	1. Be familiar with composition of food stuffs

		2.Understand the properties and significance of various food constituents. 3. Understand changes occurring in various food stuffs after harvest, during storage and transportation, as a result of processing and cooking. 4. Apply this knowledge for food product development.
16203	Vitamins	1. Gain in-depth knowledge of the physiological and metabolic role of vitamins and their role in human nutrition. 2.Understand the basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs. 3. Be familiar with the recent advances in nutrition and apply this knowledge in planning for public health programmes. 4. Understand the pharmacological actions of various vitamins and their implications.
16204	Food Safety and Quality Control	1.Know the importance of quality assurance in food industry. 2. Be able to conduct various tests and assess quality, using standards for quality assessment and food safety. 3. Be able to conduct the various tests used to detect food adulterants. 4. Be familiar with the fundamentals that should be considered for successful quality control programme.
16205	Food Product Development & Sensory Evaluation	1.Understand concepts about sensory evaluation of food. 2. Use different sensory methods for evaluating variety of foods. 3. Analyze and interpret sensory evaluation data. 4.Understand the requirements for product development
16291	Clinical Nutrition	1.Understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs. 2. To assess nutritional status of patients. 3. Be familiar with recent advances in the medical nutritional management of various diseases.
16292	Nutrition for Sports and exercise	1.Understand the special nutritional requirements for physical activities related to sports and exercise 2. Apply the knowledge to improve the performance of sportspersons
SEMESTER-III		

16301	Minerals	1.Gain in-depth knowledge of the physiological and metabolic role of vitamins and minerals and their role in human nutrition. 2.Understand the basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs. 3. Be familiar with the recent advances in nutrition and apply this knowledge in planning for public health programmes. 4. Understand the pharmacological actions of various vitamins and their implications.
16302	Maternal and Child Nutrition	1. Be familiar with physiological changes in pregnancy and lactation. 2. Be familiar with growth and developmental changes from conception till adolescence. 3.Understand the inter-relationship between nutrition and growth and development during life cycle. 4.Apply their knowledge in community and public nutrition/health programmes.
16303	Nutrition in Society	1.Familiarize with the problems related to food and nutrition security among various communities / socio-economic groups / rural, tribal, urban slums. 2.Enable to assess nutritional status of individuals/group. 3.Enable to plan, implement, monitor and evaluate intervention programmes 4.Familiarize with the various strategies / approaches used to combat malnutrition.
16304	Food Product Development and Packaging	1.Understand and apply various aspects of food product development including Food Science and Technology, Marketing and Consumer research, finance and communication. 2.Develop products which meet consumer needs, and are nutritionally and commercially viable 3.Be skilled in the various aspects including shelf life assessment, testing of quality parameters and acceptability, packaging and labeling of a product
0030117	Statistical Applications in Research	1.Discriminate between parametric and non-parametric tests 2. Learn to apply statistical tests for data analysis for both large and small samples 3. Know how to interpret the results of statistical analysis of data 4. Be able to summarize data and present it using tables and graphs

		5. Develop skills for preparation of research proposals 6. Understand the components of a research report
16391	Functional Foods, Biodynamic Principles and Nutraceuticals	1.Gain knowledge about functional foods, biodynamic principles and nutraceuticals 2. Have thorough understanding about the health effects 3. Be familiar with applications in industry.
16392	Research Methodology in Nutrition	1.Acquire systematic knowledge of basic and applied aspects of recent methods of food processing. 2.Know the basic principles in the production of important food products. 3.Understand the potential and use of various by-products of food industry. 4.Gain knowledge about various packaging materials and importance of packaging 5. Be familiar with packaging laws/regulations and tests used for evaluation 6.Be able to select appropriate packaging material for a variety of food stuffs vis-à-vis the need for preventing environmental degradation.
16393	Public Nutrition and Health	1.Understand the scientific approaches used in accumulating knowledge in the field. 2. Understand the various designs used vis-à-vis the research problem. 3. Be able to identify sources of variability and uncertainty in research in this field. 4. Be able to design and carry out research studies in these fields of Foods and Nutrition
16394	Management of Severe Acute Malnutrition	1.Develop a holistic knowledge base and understanding of the nature of important nutritional problems and their prevention and control for the disadvantaged and upper socio-economic strata in society 2. Understand the causes /determinants and consequences of nutritional problems in society 3. Be familiar with various approaches to nutrition and health interventions, programmes and policies.
SEMESTER-IV		
16491	Scientific Writing	1.Appreciate and understand the importance of different types of scientific writing/documentation. 2.Develop competence in writing and abstracting skills.
16492	Recent Methods in Food Processing, Preservation and Packaging	1.Acquire systematic knowledge of basic and applied aspects of recent methods of food processing.

		2. Know the basic principles in the production of important food products. 3. Understand the potential and use of various by-products of food industry. 4. Gain knowledge about various packaging materials and importance of packaging 5. Be familiar with packaging laws/regulations and tests used for evaluation 6. Be able to select appropriate packaging material for a variety of food stuffs vis-à-vis the need for preventing environmental degradation.
16493	Food Laws, Standards and Food Audit	1. Know and understand the various national and international standards for different food articles in detail. 2. Understand the food regulatory mechanism in our country.