SNDT Women's University

SNDT WU CENTRE FOR VOCATIONAL AND TECHNICAL EDUCATION

Name of Program: B. Voc. In Food Processing Technology

Program Outcomes

After successful completion of the program , the graduates will be able

1. To become highly competent food technologist to contribute professionally to the field of food technology and society.
2. To develop practicing consultants & entrepreneurs to set up small scale food industry in food & allied sector.
3. To continue to develop both professionally and personally through graduate study, participation in professional societies continuing education and community service and demonstrate spirit of team work and high moral value.

Program Specific Outcomes

At the end of program the student should

PSO1- be able to understand concepts & apply in the field of food technology, engineering, analysis, packaging, hygiene.

PSO2- be able to associate the learning from the courses related to technology, processing, preservation, engineering, analysis, packaging,hygiene to arrive at solutions to real world problems.

PSO3- have ability to comprehend technological advancements to analyse & design processes for a variety of applications.

PSO4- have adaptability to function in multidisciplinary work environment, good interpersonal skills, professional ethics & societal responsibilities.

Course Outcomes

B. Voc. Food Processing Technology Semester-I

Course Code	Course Name	Course Outcomes
103101	COMMUNICATION SKILLS AND DOCUMENTATION	1 – Identify objectives, enablers and barriers of communication 2 – Write business letters, e-mails and other forms of communication in a professional manner 3 – Compare channels of communication and select appropriate one 4 – Apply appropriate techniques for group commnication
103102	ENVIRONMENTAL STUDY	1 – Understand and describe different types of pollution 2 – Apply the knowledge in reducing global warming and green house effects along with different types of pollution and diseases. 3 – Analyse different types of tree, their medicinal , food values
103103	FOOD PROCESSING TECHNOLOGY I	1 – Understand technical know how of basic ingredients and the methodology of bakery, dairy and confectionary products 2 – Describe different methods of manufactures 3 – Evaluate and select appropriate raw materials as per product requirements

103104	FOOD CHEMISTRY	1 – Understand and enlist properties of components of foods 2 – Apply the knowledge for analytical and processing methods
103201	FOOD CHEMISTRY PRACTICAL	1 – Perform qualitative test for components of food 2 – Perform quantitative test for components of food
103202	FOOD PROCESSING TECHNOLOGY I	1 – Prepare different types of dairy, bakery and confectionary products 2 – Evaluate finished product with respect to sensory appeal
103901	On-Job-Training (OJT) / Qualification Packs	1 – Perform work in the industry 2 – Apply the knowledge for problem solving and designing new process,
B.Voc. Food Processing Technology Semester-II		
203101	FOOD PRESERVATION	1 – Identify food quality loss mechanisms and its deterioration in terms of microbial, chemical, physical and biochemical changes 2 – Implement preservation methods like drying, acids, added chemicals, controlled air, pressure and high energy radiation 3 – Apply appropriate food preservation methods depending upon the product
203201	FOOD PRESERVATION	1 – Perform various preservation methods 2 – Apply appropriate method of preservation techniques for various products
203102	FOOD ADDITIVES & FLAVOUR TECHNOLOGY	1 – Understand and describe type and classes of food additives and their action 2– Compute amount of additive to be used according to legal standards 3– Apply knowledge to select appropriate additive in a product
203103	FOOD PROCESSING TECHNOLOGY II	1 – Explain the theory and working principle of processing technologies of cereals, pulses, oilseeds and spices 2 – Outline manufacturing processes of related products 3 – Evaluate raw materials as per product requirement.
203202	COMPUTER SKILLS PRACTICAL	1 – Perform fundamental operating system functions. 2 – Use common software applications such as word processing and spreadsheet software. 3 – Use a computer for Internet access 4– Assemble the computer and its devices.
203203	FOOD PROCESSING TECHNOLOGY II PRACTICAL	1 – Prepare different products of cereal, pulses oilseeds and spices 2 – Describe different methods of manufacture of related products 3 – Apply knowledge for industrial production and analyses
203901	On-Job-Training (OJT)/Qualification Packs (NSQF Level 5)	1– Perform work in the industry 2 – Apply the knowledge for problem solving and designing new process,

B. Voc. Food Processing Technology Semester-III		
303101	**FOOD MICROBIOLOGY**	1 – Understanding the basics of food microbiology and role of microorganism in the food industry 2– Evaluate and compare causes of food deterioration and food borne illness 3 – Students will be to apply various control measures to increase product shelf life
303201	**FOOD MICROBIOLOGY PRACTICAL**	1 – Identify the microorganisms using isolation technique 2– Isolate pathogen and spoilage bacteria from food and environment
303102	**FOOD NUTRITION**	1 – Understand and describe different types of nutrients in the diet 2 – Apply the knowledge to design age specific receipies or a diet 3 – understand and apply the knowledge of functional foods/neutaceuticals to improve immunity and overall health
303103	**FOOD BIOCHEMISTRY**	1– Understand and describe types and properties of tissues, enzymes and digestive system 2 – Summarize different metabolic pathways of carbohydrate fat protein 3 – Apply the knowledge for controlled measures of metabolic disorders
303104	**UNIT OPERATIONS**	1 – Understand and explain basic principles of unit operation such as heat and mass transfer, fluid flow, mechanical operation 2 – Apply concepts to solve engineering problems 3 – Apply the knowledge to select suitable instrument or equipment for the process
303105	**FRUITS AND VEGETABLE PROCESSING**	1– Understand and describe various fruit and vegetable products and their standards. 2 – Evaluate raw materials for appropriate product manufacture 3 – Outline and compare various manufacturing processes
303202	**FOOD PROCESSING TECHNOLOGY III**	1 – Select raw material of required quality and prepare fruit and vegetable based products 2– Evaluate the prepared products and compare it with standards products 1. Preparation and quality evaluation of fruits 2. Preparation of variety of jam 3. Processing of tomato products; Ketchup 4. Preparation of dehydrated vegetables. 5. Preparation of fruit jelly 6. Preparation of marmalades 7. Preparation of different types of squash 8. Preparation of murraba 9. Preparation of pickles 10. Preparation of candid fruit and fruit bars 11. Osmotic dehydration of fruit
303901	**On-Job-Training (OJT) / Qualification Packs**	1– Perform work in the industry 2– Apply the knowledge for problem solving and designing new process, methods
B. Voc. Food Processing Technology Semester-IV		

403101	**FOOD SANITATION AND HYGIENE**	1 – Understand the importance of application of sanitation and hygiene in food industry 2 – Identify and apply good hygiene practices and measure to improve industry quality standards 3 – Apply the appropriate measures to minimize and eliminate the risk of accidents in food catering establishments.
403201	**FOOD SANITATION AND HYGIENE PRACTICAL**	1 – Analyse the microbial food contaminant 2– Students Will learn to evaluate microbiological quality of foods and food ingredients by using appropriate technique 1. Extraneous matter and its detection. 2. Testing kitchen ware. 3. Microbial testing of water. 4. Determination of BOD 5. Determination of Howard mold count. 6. Testing hygiene of Food handler. 7. Microbiological report of different food products. 8. Testing quality of ingredients.
403102	**FOOD ANALYSIS**	1 – Understand and explain different analytical method 2– Describe principle and working of analytical instruments 3– Apply knowledge to select best analytical method
403103	**FOOD LAWS AND REGULATION**	1 – Understand and explain food regulation and their significance with respect too human health 2 – Apply the knowledge in QC and QA department to take a correct informed decision 3 – Understand global food laws and apply knowledge for import and export food products
403104	**FOOD PROCESSING EQUIPMENT**	1 – Explain different types of equipments used in food industry 2 – Explain working and maintainence of equipments 3 – Apply the knowledge to select equipment as per the requirement
403202	**FOOD ANALYSIS PRACTICAL**	1 – Perform analysis of food product and create a certificate of analysis 2 – Students will be able to analyse food products and compare them with FSSAI standards 3 – Apply their knowledge and check for the adulterants in food products.
403901	**On-Job-Training (OJT) / Qualification Packs**	1 – Perform work in the industry 2 – Apply the knowledge for problem solving and designing new process,
B.Voc. Food Processing Techniques Semester -V		
503101	**FOOD PACKAGING**	1 – Understand and describe properties of different packaging material and forms 2 – Summarize testing methods for materials and package 3 – Design appropriate package as per the requirement
503102	**TECHNOLOGY OF ANIMAL PRODUCTS**	1– Understand and describe various animal based products and their standards 2 – Evaluate raw materials for appropriate product manufacture 3 – Outline and compare various manufacturing processes

503103	**FOOD INDUSTRY WASTE MANAGEMENT**	1– Learn to preserve and use minimal or alternate resources for food production and its impact 2 – Use of different food processing machines to minimize the waste 3– Recover valuable energy, organic matter from the food waste
503201	**COMPUTER SKILLS**	1 – Use common software applications such as presentation software. 2 – Create a database and generate forms and reports from the database using database application 3 – Draw logo, signs, create new fonts using graphics design software 4 – Design news letters, certificates, advertisements, visiting and invitation cards using Desktop Publishing Software.
503104	**BEVERAGE TECHNOLOGY AND PLANTATION CROPS**	1 –Understand and describe different beverages and plantation crop products 2 – Evaluate raw material and select as per product requirement 3 – Outline various manufacturing methods
503202	**FOOD PROCESSING TECHNOLOGY IV PRACTICAL**	1 – Prepare various fruit and vegetable based products 2 **–** Apply appropriate methods of processing for newer fruit and vegetable based products 1. Preparation of soy milk, fruit milkshakes, herbal beverages; 2. Preparation of fruit wines. 3. Preparation of carbonated beverages 4. Processing of Egg and Poultry. 5. Processing of Meat and Fish. 6. Introduction to sensory analysis 7. Difference tests 8. Descriptive test 9. Acceptance test 10. Hedonic rating 11. Multiple sample ranking test 12. Visit to relevant Industry.
503901	**On-Job-Training (OJT) / Qualification Packs**	1 – Perform work in the industry 2– Apply the knowledge for problem solving and designing new process, methods
B. Voc. Food Processing Technology Semester-VI		
603101	**QUALITY ASSURANCE AND CERTIFICATION**	1 – Understand and describe various quality systems such as ISO, HACCP 2 – Understand implementation of quality systems 3– Apply knowledge for problem solving during implementation of quality systems
603102	**GRASS ROOT INNOVATION AND ENTREPRENEURSHIP**	1– Understand and compare different types of entrepreneurship styles and qualities 2 – Prepare buiseness plan 3 – Apply role of innovation in problem solving , entrepreneurial ventures
603103	**E-COMMERCE**	1– Understand and describe buiseness models of E- commerce and features of website 2 – Understand and apply knowledge of internet for business venture, online payment 3 – Describe and analyse digital marketing concepts and online retailing.

603201	**INTERNSHIP**	1 – Perform work in the industry 2 – Apply the knowledge for problem solving and designing new process, methods
603901	**On-Job-Training (OJT) / Qualification Packs**	1 – Perform work in the industry 2 – Apply the knowledge for problem solving and designing new process, methods