## College of Non-Conventional Vocational Courses for Women, Kolhapur

## Department of Food Technology

## PROGRAMME SPECIFIC OUTCOMES

Sr. No.	Programme	Specific Outcome
1.	B.Sc. (Food Technology & Management) (CBCS)	<ul> <li>To increase the employability of women in the food processing sector of Indian economy which has been accorded priority in policy making.</li> <li>To expose the participant to the basic essentials of Food Technology &amp; preservation so that they become capable of independently handling food processing units.</li> <li>To make them understand the nutritional side which may help inculcate the scientific view regarding dietary habits of population.</li> <li>To enable the participants to keep themselves abreast of recent changes in Food Technology and Management.</li> <li>To create necessary awareness regarding the laws affecting Food Processing and Preservation.</li> <li>To inculcate entrepreneurship attitude and self-employment attitude.</li> </ul>

## **COURSE OUTCOMES**

Class	Course Code / Course Name	Course Outcome
I Semester I	DSC FTM A-1 Food Science I	<ul> <li>Understand the food groups and their functions</li> <li>Acquire knowledge on different methods of cooking</li> <li>Apply process of different foods.</li> </ul>
CBCS	DSC FTM A-2 Food Science II	<ul> <li>Use combination of foods in the development of food products.</li> <li>Identify and control adulterants in various foods &amp; evaluate food quality</li> <li>Gain knowledge of food composition (including major chemical interactions and nutritional factors) in the context of food quality and safety</li> </ul>
	DSC FTM A-3 Food Microbiology I	<ul> <li>Explain types, characteristics and significance of microorganisms</li> <li>Describe the structure and functions of major components of microbial cells</li> <li>Understand the concept of microbial growth, its measurement and growth curves, factors influencing their growth and survival.</li> <li>Discuss various methods of sterilization and disinfection</li> </ul>
	DSC FTM A-4 Food Microbiology II	<ul> <li>Understand the relevance of microbial spoilage of various foods &amp; its intoxications.</li> <li>Provide framework on the concepts of quality control activities</li> <li>Understand the processes &amp; application of fermentation in food industries.</li> </ul>
	DSC FTM A-5 Dairy Technology I	<ul> <li>To understand processes involved in production of milk and milk products</li> <li>Understand &amp; apply drying process in manufacturing of dried milks</li> </ul>
	DSC FTM A-6 Dairy Technology II	<ul> <li>Know about process involved in processing of various fat rich dairy products</li> <li>Provide knowledge regarding commercial production of cheese &amp; ice-creams</li> </ul>
	DSC FTM A-7 Human Physiology I	<ul> <li>Relate the structures with functions of tissues &amp; organs</li> <li>Understand the functions of important physiological systems such as cardiovascular, respiratory, renal, endocrine and digestive systems</li> </ul>
	DSC FTM A-8 Human Physiology II	<ul> <li>Understand the functions of important physiological systems such as renal, endocrine and digestive systems</li> <li>Recognise the clinical symptoms of nutritional deficiencies</li> </ul>
	AECC-A English-I	<ul> <li>Communicate effectively orally and in writing</li> <li>Use academic writing associated with the communication discipline</li> </ul>

Class	Course Code / Course Name	Course Outcome
B.Sc. (FTM) I Semester II CBCS	DSC FTM –B1 Food Chemistry - I	<ul> <li>To understand reactions of carbohydrates, lipids and proteins during storage and processing of food and how these influence the quality and properties of the food.</li> <li>To understand the importance of water for stability and quality of foods.</li> </ul>
	DSC FTM –B2 Food Chemistry- II	<ul> <li>To understand the chemistry of additives influencing colour and flavour of food knowledge.</li> <li>To Gain knowledge related to important sources of vitamins and minerals in food and their functions</li> </ul>
	DSC FTM –B3 Principles of Food Preservation - I	<ul> <li>Gain knowledge about the principles involving food preservation by moisture control, application of heat, removal of heat, fermentation and emerging technologies.</li> <li>Distinguish between high &amp; low temperature processing.</li> </ul>
	DSC FTM –B4 Principles of Food Preservation - II	<ul> <li>Focus on various chemical additives &amp; their effect on food products.</li> <li>Explore the principle of preservation in non-thermal processing of food.</li> </ul>
	DSC FTM –B5 Human Nutrition - I	<ul> <li>Gain the knowledge about human nutrition &amp; its importance in maintenance of health</li> <li>Understand nutrition through life-cycle stages like infancy, pre-school, school going &amp; adults</li> </ul>
	DSC FTM –B6 Human Nutrition - II	<ul> <li>Understand nutrition through life-cycle stages like pregnancy, lactating women, expectant mothers &amp; old age.</li> <li>Know about growth &amp; development and nutritional requirement during pregnancy &amp; lactation to promote healthy living</li> </ul>
	DSC FTM –B7 Computer Basics and Applications - I	<ul> <li>To apply knowledge of computer appropriate to the discipline</li> <li>Students will attain an ability to use current techniques, skills, and tools necessary for computing practice</li> </ul>
	DSC FTM –B8 Computer Basics and Applications - II	<ul> <li>To apply knowledge of computer appropriate to the discipline</li> <li>Students will attain an ability to use current techniques, skills, and tools necessary for computing practice</li> </ul>

Class	Course Code / Course Name	Course Outcome
II	DSC-FTM-C1 Grain Science and Technology - I  DSC-FTM-C2 Grain Science and Technology -II  DSC-FTM-C3 Post Harvest Technology-I	<ul> <li>Understand the basics of milling operations for food grains</li> <li>Identify the problems associated with milling of grains and their solution.</li> <li>Know processing food grains into value added products</li> <li>Able to explain and apply different processing operations applied to nuts and oilseed based products</li> <li>Study of different anti-nutritional factors in Cereals , Legumes and Oilseeds</li> <li>Understand the Processing techniques for major plantation crops like tea, coffee, and coco.</li> <li>Know the manufacturing of raw and refined sugar</li> </ul>
	DSC-FTM-C4 Post Harvest Technology–II DSC-FTM-C5 Industrial and Agri Business Management- I	<ul> <li>Study of post harvest technology of Fruits and Vegetables</li> <li>Understand the importance and classification of spices</li> <li>Study the chemical composition, processing of major and minor spices</li> <li>Understand the nature scope and importance of Agribusiness Management</li> <li>Study of Farm production system and technology</li> <li>Understand the nature scope and importance of Industrial Business Management</li> </ul>
	DSC-FTM-6 Industrial and Agri Business Management- II	<ul> <li>Study of Farm Economics</li> <li>Know the marketing of agricultural products</li> <li>To Understand Production Management and Financial Management</li> <li>Study of Marketing Management and Financial Management</li> </ul>
	AECC -C	<ul> <li>Gaining in-depth knowledge on natural processes that sustain life and govern economy.</li> <li>Predicting the consequences of human actions on the web of life, global economy and quality of human life.</li> <li>Developing critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development</li> <li>Acquiring values and attitudes towards understanding complex environmentaleconomic-social challenges, and participating actively in solving current environmental problems and preventing the future ones.</li> <li>Adopting sustainability as a practice in life, society and industry</li> </ul>

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B.Sc. (FTM)	DSC FTM-D1 Processing	<ul> <li>Understand the Morphology, classification and</li> </ul>
II	and Preservation of	Composition of fruits and vegetables
Semester IV CBCS	Fruits and Vegetables-I	<ul> <li>Understand biochemical changes taking place in fruit and vegetables.</li> </ul>
		<ul> <li>Learn the Processing and preparation of value added products from the fruits and vegetables</li> </ul>
	DSC FTM-D2 Processing and Preservation of Fruits and	<ul> <li>Students will able to preserve the fruits and vegetables and make their products to make available them in off season.</li> </ul>
	Vegetables-II	<ul> <li>Understand the different methods of dehydration of fruits and vegetables</li> <li>Learn the freezing operations used in preservation of fruits and vegetables</li> </ul>
	DSC FTM-D3 Food Biochemistry-I	<ul> <li>Study the types of solutions and their preparation</li> <li>Learn the different analytical techniques in biochemistry</li> <li>Understand the nature ,classification and mechanism of enzyme action and their significance</li> </ul>
	DSC FTM-D4 Food Biochemistry-II	<ul> <li>Understand the metabolism of Carbohydrate</li> <li>Study of metabolism of proteins</li> <li>Learn the metabolism of lipids</li> </ul>
	DSC FTM-D5 Food Packaging -I	<ul> <li>Learn the types of packaging material and role of packaging in Food preservation</li> <li>Study of different terminologies used in packaging</li> <li>Understand the different types of Packaging</li> </ul>
	DSC FTM-D6 Food Packaging –II	<ul> <li>Study of Packaging accessories</li> <li>Learn the advances in Packaging technology</li> <li>Study the packaging systems for different foods</li> <li>Gain knowledge about packaging laws and regulations</li> </ul>

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B.Sc. (FTM) III Semester V CBCS	DSE FTM – E1 Animal Product Technology-I	<ul> <li>Learn the skills required for pre-slaughtering of meat and further processes.</li> <li>Acquire knowledge of structure, composition &amp; different preservation techniques of preserving eggs.</li> </ul>
	DSE FTM – E2 Bakery and Confectionery-I	<ul> <li>Provide deeper knowledge and making students understand about skill development training on bakery science and technology.</li> <li>Learn commercial manufacturing of bread, biscuits, cookies, pastries, buns, crackers &amp; quick bread.</li> </ul>
	DSE FTM – E3 Food, Quality, Safety and Waste management I	<ul> <li>Understand the food quality aspects and need of food safety.</li> <li>Knowing the various regulatory aspects for food business operators.</li> <li>Acquire knowledge of food laws &amp; regulations.</li> </ul>
	DSE FTM – E4 Beverage Technology- I	<ul> <li>Ability to understand the science &amp; technology for processing of different beverages.</li> <li>Ability to explain fruit juice beverages, carbonated beverages &amp; non-alcoholic beverages.</li> </ul>
	AECC-E English III	<ul> <li>Comprehend communication process, methods of communication &amp; flow of communication.</li> <li>Compose effective professional letters using standard language, style &amp; structure</li> </ul>

Class	Course Code / Course Name	Course Outcome
III	DSE FTM – F1 Animal Product Technology II  DSE FTM – F2 Bakery and Confectionery II  DSE FTM – F3 Food, Quality, Safety and Waste management II	<ul> <li>Learn the processing &amp; preservation techniques used in fish.</li> <li>Learn the skills required for pre-slaughtering of poultry and further processes.</li> <li>Gain knowledge about extrusion technology &amp; manufacturing of extruded products.</li> <li>Understand detail manufacturing of amorphous &amp; crystalline confectionery products.</li> <li>Understand the various voluntary standards for food processing industries.</li> <li>Recognize and communicate common</li> </ul>
	DSE FTM – F4 Beverage Technology- II	<ul> <li>processing methods which convert food waste into valuable products.</li> <li>Understanding of permitted additives in beverages</li> <li>Knowledge of recent high value added beverages &amp; recent trends in beverage industry.</li> </ul>
	AECC-F English-IV	<ul> <li>Comprehend the employment skills to have effective first impression</li> <li>Use various inter-personal skills as per the need of situation &amp; context</li> </ul>