



## M.E.S MAMPAD COLLEGE (AUTONOMOUS)

MAMPAD COLLEGE P.O, MALAPPURAM, KERALA, INDIA, 676542

Affiliated to University of Calicut

Accredited by NAAC with A grade

Syllabus Year	2019--20
Department	Food Technology
Programme	BSc Food Technology

Programme outcome.

Sl.No	Programme Outcome
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity-centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
PO7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes

Continue adding rows till the POs are completely added.

Programme specific out come

Sl.No	Programme Specific Outcome.
PS01	<b>The ability to understand physico- chemical, microbiological, sensory and nutritional aspects of foods</b>
PS02	The ability to analyse preservation, processing, packaging and storage of foods
PS03	The ability to understand technologies and processes for producing value added food products
PS04	The ability to apply and evaluate standard practices, Laws and regulation in food production and quality

Continue adding rows till the POs are completely added

Course Outcome (add a sufficient Number of rows in each semester

Semester	Course Code	Course Name	Course outcome
I	FTL 1 B 01	Perspectives of Food Science & Technology	Acquire the basic knowledge of food science and technology
			Understand the Structure and composition of different types of foods
			Aware of the basics of quality assessment, nutritional factors and health foods.
			Knowledge in Food additives (Preservatives, colours, improvers etc
			An idea about journals, research centers and leading industries.
I	FTL 1B 02 P	Perspectives of Food Science & Technology	To acquire knowledge for preparation of reagents and standard solutions for food analysis Understand the significance of qualitative tests Build the skill to find out moisture, acidity and TSS
II	FTL 2 B 03  FTL 2B 04 P	Food Microbiology 1	The student will have knowledge on history of microbiology.
			Understand concept of growth and reproduction of bacteria ,relevance of microscopy.
			Understand the basic microbial structure, function and study the comparative characteristics of prokaryotes and eukaryotes and understand the structural similarities and differences among the M
			On completion of the course, students are able to Understand various accessories for microbiology practical
			Develop skill to stain bacterial cell

		Food Microbiology 1	
III	A11	Basic Numerical Skill	To understand set operations To acquire knowledge on matrix and operation rules To acquire knowledge on solving equations To understand progression, Statistical tools and their applications
III	A12	Informatics and Emerging Technologies	To understand about basic parts of computer and its memories To impart knowledge on social informatics  To recognise the significance of cyber security
III	FTL 3B 05	Food Engineering	Identify the mechanisms by which various unit operations in food processing optimize food quality and extend shelf life of foods
			Understand principles of heat and mass transfer phenomena
			Describe the theories of refrigeration and freezing
			Understand rheological characteristics of foods
III	FTL 3 B 06 P	Food Processing & Preservation	Understand the working principle of heat exchangers, evaporators, driers and boilers
			Understand and perform the blanching of foods
			Acquire capacity to perform drying and to draw drying curves
			Perform the general sensory evaluation methods in foods
IV	A13	A13 ENTREPRENEURSHIP AND ENVIRONMENTAL SCIENCE	To recognise the contradicting nature of industrialization and sustainable development To distinguish the types of pollution of water, air and land To understand the basic principles and applications of pollution control methods To understand the basic principles and applications of pollution control methods
IV	A014	<b>NUTRITION AND HEALTH</b>	Understand the desirable food behavior and nutritional practice.
			Understanding the relationship between diet and health and to changing food and nutritional attitudes.
			Understand to constitute a nutritious diet and how people can best meet their nutritional needs from available recourses
			To know for calculation of BMI and its managing

			Understand the energy value of various foods
IV	FTL 4 B 07	Food chemistry & Analytical instrumentation	Exposure to various Instrumental analysis of foods which needed for statutory requirements Understand the constituents of foods which are always amenable during processing. Knowledge of minor constituents useful to get the organoleptic character of foods.
1V	FTLBO8 P	Food chemistry & Analytical instrumentation	Get accuracy result on various practical done, Develop skill on laboratory practices
V	FTL 5 B 09	FOOD MICROBIOLOGY II	Understand microbiological techniques for the isolation of pure culture
			To understand spoilage organisms ,growth factors and control
			To know the effect of fermentation in food production and how it influences the microbiological quality and status of food products.
			To perform and analyze the microbiological safety of milk and water
			To study the methods of isolation and culturing of microorganisms
V	FTLB10	Cereals, Pulses and Oil seeds Technology	Familiarize on milling technologies of rice & wheat. Knowledge on baking technologies of bread, cake, biscuit and confectionery. Knowing the processing methods of pulses, nuts and oilseeds. Detailed description of millets chemistry
V	FTL 5 B 11	FOOD PRESERVATION & PACKAGING TECHNOLOGY	Understand the master technologies of thermal food processing which governs most food industries Signify the importance of various drying methods Make knowledge on pros and cons of low temperature preservation Optimize the idea on how ionizing radiation can be used for food preservation Rely on ancient fermentation method and its application
V			

V	FTL512P	Cereals, Pulses and Oil seeds Technology Practical	On completion of the course, students are able to Demonstrate the importance of raw material chemical analysis for the quality of finished goods Develop skill on product making process and quality assurance
V	FTL5B13P	Food Microbiology 11	To analyse different types of specimens microbiologically: Incoming raw material such as meat Water -treated & raw water for coliforms Microbial flora in foods such as milk
V	FTL14P	Food analysis	Demonstrate the results compared with standards given by authority and regulations Educate the people with any adulteration or violation of the product
V1	FTL6B15	Dairy Technology	Lists the components of milk. Providing the importance of dairy processing and technologies and equipment used Take more knowledge on different types of market milk and fermented milk product
VI	<b>FTL 6 B 15 EF TL 6 B 15FFTL 6 B 15 FTL 6 B 15 TL 6 B 15 DAIRY TECHNOLOG Y (3 Credits)</b>	FTL6B16 Technology of Animal Foods	Understand the importance of safe slaughtering methods and its significance in food safety. • Innovative ideas on the production of various products • Describe the methods of preservation of different animal products based
VI		FTL6B17 <b>FOOD SAFETY, FOOD LAWS&amp;REGULATIONS</b>	Understand the importance of food safety and hygiene and can apply it at industrial level Recognize the national and international standards and practices for food safety and can implement it at industries Impart knowledge to implement the updated FSSAI act at analysis as well as production level.

VI			Understand various operations in postharvest technology of fruits, vegetables and spices Develop skill to handle the operations in fruits and vegetable processing units Develop skills in canning and drying
			Understand various methods of preparation of fruits and vegetable based products Develop skill to analyze the quality of fruits and vegetable based products
VI		FTL 6 B 18 Technology of fruits ,Vegetables	To know about the quality control measures applied in Dairy industries & Grading of Egg. To gain knowledge about preparation of dairy products ·
			Develop skills to perform food product research and new product development In-plant Training---Equip to perform the duties of a food technologist
			FTL 6 B 19 P Impart the skills for handling various sections like Production, processing, Safety and Quality in processing units and their documentations.
VI		FTL6B20 P Technology of Animal Foods  (Project Work)FTL 6 B 21Pr	

