

DEPARTMENT	PROGRAMME SPECIFIC OUTCOME
<p align="center">B Sc FOOD TECHNOLOGY</p>	<p>PSO1: The ability to understand physico- chemical, microbiological, sensory and nutritional aspects of foods</p> <p>PSO2: Develop the skills to analyze preservation, processing, packaging and storage of foods</p> <p>PSO3: Evaluate the technologies and processes for producing value added food products</p> <p>PSO4: The ability to apply and evaluate standard practices, Laws and regulation in food production</p> <p>PSO5: Develop understanding of the fundamental concepts of BSc Food Technology needed for a deeper study of related fields of knowledge viz. Food Chemistry, Food Microbiology and Food Engineering etc.</p> <p>PSO6: Develop the experimental and analytical skills in BSc Food Technology that can be of useful applications in allied areas of knowledge.</p>
	PROGRAMME OUTCOME
	<p>PO1: Knowledge Acquisition: Demonstrate a profound understanding of knowledge trends and their impact on the chosen discipline of study.</p> <p>PO2: Communication, Collaboration, Inclusiveness, and Leadership: Become a team player who drives positive change through effective communication, collaborative acumen, transformative leadership, and a dedication to inclusivity.</p> <p>PO3: Professional Skills: Demonstrate professional skills to navigate diverse career paths with confidence and adaptability.</p> <p>PO4: Digital Intelligence: Demonstrate proficiency in varied digital and technological tools to understand and interact with the digital world, thus effectively processing complex information.</p> <p>PO5: Scientific Awareness and Critical Thinking: Emerge as an innovative problem-solver and impactful mediator, applying scientific understanding and critical thinking to address challenges and advance</p>

	<p>sustainable solutions.</p> <p>PO6: Human Values, Professional Ethics, and Societal and Environmental Responsibility: Become a responsible leader, characterized by an unwavering commitment to human values, ethical conduct, and a fervent dedication to the well-being of society and the environment.</p> <p>PO7: Research, Innovation, and Entrepreneurship: Emerge as a researcher and entrepreneurial leader, forging collaborative partnerships with industry, academia, and communities to contribute enduring solutions for local, regional, and global development.</p>
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Programme : BSC Food Technology		
COURSE CODE & COURSE NAME	COURSE OUTCOME	COGNITIVE LEVEL
	At the end of this BSc Food Technology course the student will able to	
Cognitive level- Remember –(R),Understand –(U), Apply- (A),Evaluate- (E), Create- (C)Analyze(An)		
Semester 1		
FTL 1 CJ 101 FUNDAMENTALS OF FOOD TECHNOLOGY	CO1: Know the relationship between food, nutrition and functional foods.	R
	CO2: To Remember the basic Food groups like cereals, pulses, oilseeds, fruits vegetables, spices, meat, fish, poultry, sea food, milk and dairy products.	R
	CO3: Apply the scientific method of enquiry as it relates to the measurement of sensory, chemical and physical properties of foods	U
	CO4: To develop an insight among the students about the existing modern techniques and their applications in food processing preservation.	An
Semester 2		
FTL 2 CJ 102 FOOD MICROBIOLOGY – I	CO1: To know the important genera of microorganisms associated with food and their characteristics.	U

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO2: Apply the knowledge in the laboratory techniques to detect, quantify, and identify microorganisms in foods	AP
	CO3: To gain knowledge on various methods of cultivation and identification of food microbes.	AP
	CO4: Develop basic laboratory skills for the isolation, identification, and quantification of microorganisms in food samples	E
	CO5: Establish a comprehensive understanding about the concept of growth of microbes in food	U
	CO6: To Understand the knowledge on history of microbiology	U
Semester 3		
FTL 3 CJ 201 NUTRITION SCIENCE	CO1: Define the concept of health and nutrition	E
	CO2: Discuss the microelements, macro elements, vitamins and minerals in the food	U
	CO3: Compare the nutrients supplied by the food	AP
	CO4: Test the relationship between diet and health and to changing food and nutritional attitudes	AN
	CO5: Developing supplementary nutrition program whenever necessary.	R
FTL3CJ 202 FOOD CHEMISTRY	CO1: Understand basic constituents of foods and their response to various physio-chemical alterations.	U
	CO2: Create better understanding of food pigments and their control measurements.	C
	CO3: Understand the importance of enzymes from various sources for chemical modification of foods	U
	CO4: Analyse the factors which influence the textural quality of foods.	AN
	CO5: Analyse the various constituents of foods.	AN
Semester 4		

Programme : BSc Food Technology		
COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
FTL4CJ 203 FOOD PROCESSING AND PRESERVATION TECHNOLOGY	CO1: Understanding of thermal processes, their industrial, and ability to apply this knowledge in various contexts.	U
	CO2: Apply knowledge and skills related to preserving products at low temperature. Practical skills in implementing and optimizing low temperature preservation methods, along with an awareness of safety measures and quality control.	AP
	CO3: Apply knowledge of the biological processes and chemical methods of preservation.	AP
	CO4: Demonstrate knowledge of innovative preservation methods and also gain insights into sustainable practices, quality control and regulatory considerations with in the dynamic field of food science.	AP
	CO5: Equip individual with the knowledge and skill to develop new product in market	AP
	CO6: Create basic knowledge on recent trends in food preservation.	C
FTL4CJ 204 CEREALS ,PULSES AND OIL SEEDS TECHNOLOGY	CO1: Memorise details of millet chemistry	U
	CO2: Understand the processing method of pulses, nuts and oilseeds	AP
	CO3: Distinguish the baking technologies of bread, cake, biscuits and confectionary	AP
	CO4: Interpret various processing technologies related to rice, wheat, millets, pulses, nuts and oil seeds	AP
	CO5: Create Knowledge on processing of cereals, pulses and oil seeds	C
	CO1: Understanding of various processing technology in spices.	U
	CO2: Analyzing Quality attributes of spices	AN

Programme : BSc Food Technology		
COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will be able to	COGNITIVE LEVEL
FTL4CJ 205 SPICES AND PLANTATION CROPS	CO3: Create knowledge about Chemical Composition of spices and Manufacturing technology of spice oil and oleoresin	C
	CO4: Evaluate proximate composition of different spices	E
	CO5: Understand processing of plantation crops.	U
	CO6: Create Practical Knowledge in spice technology	C
Semester 5		
FTL5CJ 301 BASICS OF FOOD ENGINEERING AND PACKAGING TECHNOLOGY	CO1: Understand food packaging principles, packaging materials, types related to use with various food systems and packaging permeability.	U
	CO2: Understand about Passive and active packaging, Reuse, disposability and printing of packaging, Labelling techniques and legislative requirements for labelling food and beverage products	AN
	CO3: Familiarize the purpose and principles of food packaging and examine the operations involved in packaging material manufacture.	U
	CO4: Evaluate environmental issues, regulations and quality control associated with food packaging.	E
	CO5: Identify and evaluate the suitability of processing and packaging techniques for various foods.	U
FTL5CJ 302 TECHNOLOGY OF FRUITS AND VEGETABLES	CO1: Equip students with advanced knowledge of processing of fruits and vegetables	U
	CO2: Provide knowledge about various technologies used in the production and packaging of fruits and vegetables	AP
	CO3: Apply knowledge of preservation methods	AP
	CO4: Understand the preparation specification and quality control of products	AP

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO5: Familiarize different aspects of post harvest technology along with storage practices and storage disorders.	AP
	CO6: Create basic knowledge on recent trends in processing techniques of fruits and vegetables.	C
FTL5CJ 303 ENTREPRENEURSHIP DEVELOPMENT	CO1: Equip students with knowledge of Entrepreneurial terminologies	U
	CO2: Provide knowledge about various Agencies supporting Entrepreneurial growth of the individual	C
	CO3: Apply knowledge of fundamental issues of women Entrepreneurship	AP
	CO4: Understand the preparation and specification of projects for various business related to food sectors.	U
	CO5: Familiarize different aspects of food business supporters for Entrepreneurship development	U
Semester 6		
FTL6CJ 304 DAIRY TECHNOLOGY	CO1: Understand the composition and nutritive value of milk and milk products.	U
	CO2: Remember the importance of physics chemical properties of milk.	R
	CO3: Provide the Knowledge on importance of dairy processing technologies and equipment used.	U
	CO4: Understand knowledge on different types of market milk and fermented milk products	U
	CO5: Evaluate various technologies applied in dairy processing units.	E
	CO6: Apply and Evaluate quality and safety regulations and its updations in dairy units.	AP
FTL6CJ 305 TECHNOLOGY OF ANIMAL FOODS	CO1: Solid understanding the principles and practices involved in processing animal derived foods.	U
	CO2: Provide knowledge about various technologies used in the production, preservation and packaging of animal based products such as meat, dairy and eggs	AP

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will be able to	COGNITIVE LEVEL
	CO3: Apply knowledge of slaughtering methods, substantiate curing methods.	AP
	CO4: Equip students with knowledge of food safety and quality control measures to animal derived products.	AP
	CO5: To understand the concept of meat quality, composition, nutritive value and the principle factors influencing it and how to measure the major characteristics.	AP
	CO6: Create basic knowledge on recent trends in processing techniques of meat and poultry.	C
FTL6CJ 306 FOOD SAFETY AND FOOD PLANT LAYOUT	CO1: Foundational understanding of food safety and equipped to identify potential hazard, prevent contamination and able to maintain a safe food environment.	U
	CO2: Identify and manage risk associated with food safety and compliance with regulations.	AP
	CO3: Acquire skills to design, implement and maintain effective food safety programs and understanding the principles of risk assessment.	AN
	CO4: Evaluate food safety practices and systems and possess the skill to access risk, corrective actions and monitoring. Implement and analyse food handling, hazard analysis, hygiene practices, HACCP implementation.	E
SEMESTER 7		
FTL7CJ 402 FOOD ADDITIVES AND NEW PRODUCT DEVELOPMENT	CO1: Build a strong foundation in food additives. Explore the history, classification and function in food additives, gaining insights into regulatory frameworks and safety considerations	U
	CO2: Demonstrate proficiency in classifying food additives and evaluate technological processes in colorant production and understand synergies in flavour enhancers.	AN
	CO3: Understand the principles of new product development, including ideation, feasibility, assessment and formulation.	U

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO4: Explore market trends, industry collaborations and future directions in new product development.	U
	CO5: Apply knowledge gained in real world scenarios through case studies and practical applications.	AP
	CO6: Be able to present a new product	AP
FTL7CJ 401 Food Microbiology II	CO1: Define the basic concepts and terminology and recall the key characteristics of common foodborne pathogens.	R
	CO2: Summarize the stages of microbial food spoilage and its impact on food quality and to interpret the significance of microbial diversity in fermented foods.	U
	CO3: Apply microbiological testing methods for quality control in different food products.	AP
	CO4: Analyze case studies of foodborne illness outbreaks to identify root causes.	AN
	CO5: Evaluate the microbiological quality of food products using appropriate criteria thus assess the reliability and validity of different microbiological testing methods	E
	CO6: Apply various microbiological testing methods for food and water quality determination and to analyze and interpret microbial data to assess the microbiological quality of samples.	AP
FTL7CJ 403 Food Biochemistry and Food Biotechnology	CO1: Understanding the principles of enzymes, their structure, function, and regulation in biochemistry or related field	U
	CO2: Understanding of the nutritional and biochemical aspects of carbohydrates, lipids, proteins, nucleic acids, vitamins, and minerals. Applying this knowledge to assess dietary needs, recognize deficiency conditions, and understand the metabolic processes involved in maintaining overall health and well-being.	AP
	CO3: Understanding and applying R DNA technologies. Skills in gene cloning and manipulation of genetic material. Knowledge of the molecular basis of mutations and the ability to perform site-directed mutagenesis and also	AP

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	Understanding the ethical considerations and potential applications of genetic engineering in the food industry.	
	CO4: Understand the principles of microbial growth kinetics. Learn techniques for the isolation, preservation, and improvement of industrially important microorganisms. Familiarity with various types of fermentation processes and their applications. Gain practical knowledge of the component parts of the fermentation process, including media formulation, sterilization, inoculum preparation, and product extraction	U
	CO5: Comprehend the components of the fermentation process and bioreactor types. Demonstrate understanding of the production industrial products. Develop the ability to troubleshoot and optimize downstream processes to improve yields and product purity.	AP
	CO6: Understanding of biochemical analysis techniques, cell culture, fermentation processes, and their applications in various industries.	AP
FTL7CJ 404 Food Analysis	CO1: Deep understanding of different analytical applications and equipments in food laboratories	U
	CO2: Provide students with knowledge and skills in quality testing of food materials	AP
	CO3: Thorough Understanding of FSSAI specified quality parameters on important foods and their analysis.	AP
	CO4: Demonstrate knowledge on physical, chemical and microbiological analysis of foods by performing various experiments.	AP
	CO5: Equip individual to use the instruments and equipments in interpreting the quality of foods	AP
FTL7CJ 405 FOOD INDUSTRY	CO1: Build fundamental knowledge on total quality management and detailed knowledge of the role of Quality Management (QM) in modern management. To realize the significance of TQM especially in food industries and focus towards more on the same.	U

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MANAGEMENT AND AUDITING	CO2: Demonstrate knowledge of quality management systems, their implementation and the practical steps needed for implementation. Demonstrate the ability to produce a quality manual. To build capability of preparing Quality management documents to get certifications.	AP
	CO3: Have detailed knowledge of certification and accreditation. Knowledge and insight of different quality management systems i.e. product quality management, safety and environmental management.	AP
	CO4: Build eco-friendly culture in current generation. Minimize all resource wastages and support growth of company.	U
	CO5: Provide an opportunity to learn food safety and quality auditing programme. Conduct quality auditing in the food industries.	AP
	CO6: Conduct and evaluate risk assessments on food safety problems in food industries.	AP
FTL8CJ 406 FOOD PROCESS ENGINEERING AND EQUIPMENTS	CO1: Deep understanding of different thermal operations, their applications, equipments used and ability to apply this knowledge in various contexts.	U
	CO2: Provide students with knowledge and skills related to low temperature operations. Practical skills in implementing and optimizing low temperature applications.	AP
	CO3: Thorough Understanding of different non-thermal engineering operations in food industry. It will enhance their basic knowledge with advanced novel techniques	AP
	CO4: Demonstrate knowledge of innovative filtration and separation methods in food industry. Equip the students to handle novel technologies in food industry	AP
	CO5: Equip individual to use the artificial intelligence and other digital systems to reduce the load and improve the efficiency and accuracy of work	AP
SEMESTER 8		

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
FTL8CJ 407 Techniques in Food Analysis	CO1: Deep understanding of different analytical applications and equipments in food laboratories	U
	CO2: Provide students with knowledge and skills in quality testing of food materials.	AP
	CO3: Thorough Understanding of FSSAI specified quality parameters on important foods and their analysis	AP
	CO4: Demonstrate knowledge on physical, chemical and microbiological analysis of foods by performing various experiments.	E
	CO5: Equip individual to use the instruments and equipments in interpreting the quality of foods practically.	AP
FTL8CJ 408 Food Storage and Infestation control	CO1: Understand the fundamental principles of food storage and recognize the diverse types of pests that can impact the integrity of stored food products	U
	CO2: Apply knowledge of the biology and behavior of common storage pests to implement effective monitoring and inspection techniques.	AP
	CO3: Demonstrate proficiency in the identification and classification of pests, enabling timely response to potential infestations.	AP
	CO4: Develop and implement preventive and control measures, utilizing integrated pest management (IPM) strategies to ensure food storage facilities meet regulatory standards	E
	CO5: Establish a comprehensive understanding of sanitation practices, emphasizing the importance of maintaining a clean and safe environment to prevent pest infestation.	AP
	CO6: Evaluate and adhere to relevant regulations and compliance standards, ensuring the successful implementation of pest control measures in food storage premises.	AP
	CO1: Develop proficiency in articulating and formulating well-defined research problems with explicit objectives, incorporating crucial elements such as research design, hypothesis construction, error analysis, and variable	U

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
FTL8 CJ 489 Research Methodology in Food Technology	classification. Acquire mastery in employing effective organizational techniques while cultivating critical thinking and analytical skills.	
	CO2: Empower students with a solid foundation in data collection and analysis, enabling them to approach complex problems with a systematic and statistically sound methodology.	AP
	CO3: Equip with the essential skills to produce high quality research documents effectively communicate the findings and formulate proposals for acquiring grants.	AP
	CO4: Cultivate an understanding of the ethical aspects involved in scholarly publishing, including plagiarism, proper citation practices, and understanding the profound respect for intellectual property rights.	U
	CO5: Utilizing reference management software such as Zotero and Mendeley to efficiently organize and cite sources in academic research and demonstrating effective communication of ideas, potentially leading to successful publication	C

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<p align="center">B Sc FOOD TECHNOLOGY</p>	<p>PSO1: The ability to understand physico- chemical, microbiological, sensory and nutritional aspects of foods</p> <p>PSO2: Develop the skills to analyze preservation, processing, packaging and storage of foods</p> <p>PSO3: Evaluate the technologies and processes for producing value added food products</p> <p>PSO4: The ability to apply and evaluate standard practices, Laws and regulation in food production</p> <p>PSO5: Develop understanding of the fundamental concepts of BSc Food Technology needed for a deeper study of related fields of knowledge viz. Food Chemistry, Food Microbiology and Food Engineering etc.</p> <p>PSO6: Develop the experimental and analytical skills in BSc Food Technology that can be of useful applications in allied areas of knowledge.</p>
	PROGRAMME OUTCOME
	<p>PO1: Knowledge Acquisition: Demonstrate a profound understanding of knowledge trends and their impact on the chosen discipline of study.</p> <p>PO2: Communication, Collaboration, Inclusiveness, and Leadership: Become a team player who drives positive change through effective communication, collaborative acumen, transformative leadership, and a dedication to inclusivity.</p> <p>PO3: Professional Skills: Demonstrate professional skills to navigate</p>

	<p>diverse career paths with confidence and adaptability.</p> <p>PO4: Digital Intelligence: Demonstrate proficiency in varied digital and technological tools to understand and interact with the digital world, thus effectively processing complex information.</p> <p>PO5: Scientific Awareness and Critical Thinking: Emerge as an innovative problem-solver and impactful mediator, applying scientific understanding and critical thinking to address challenges and advance sustainable solutions.</p> <p>PO6: Human Values, Professional Ethics, and Societal and Environmental Responsibility: Become a responsible leader, characterized by an unwavering commitment to human values, ethical conduct, and a fervent dedication to the well-being of society and the environment.</p> <p>PO7: Research, Innovation, and Entrepreneurship: Emerge as a researcher and entrepreneurial leader, forging collaborative partnerships with industry, academia, and communities to contribute enduring solutions for local, regional, and global development.</p>
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Cognitive level- Remember –(R),Understand –(U), Apply- (A),Evaluate- (E), Create- (C)Analyze(An)		
Semester 1		
FTL 1 CJ 101 FUNDAMENTALS OF FOOD TECHNOLOGY	CO1: Know the relationship between food, nutrition and functional foods.	R
	CO2: To Remember the basic Food groups like cereals, pulses, oilseeds, fruits vegetables, spices, meat, fish, poultry, sea food, milk and dairy products.	R
	CO3: Apply the scientific method of enquiry as it relates to the measurement of sensory, chemical and physical properties of foods	U

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO4: To develop an insight among the students about the existing modern techniques and their applications in food processing preservation.	An
Semester 2		
FTL 2 CJ 102 FOOD MICROBIOLOGY – I	CO1: To know the important genera of microorganisms associated with food and their characteristics.	U
	CO2: Apply the knowledge in the laboratory techniques to detect, quantify, and identify microorganisms in foods	AP
	CO3: To gain knowledge on various methods of cultivation and identification of food microbes.	AP
	CO4: Develop basic laboratory skills for the isolation, identification, and quantification of microorganisms in food samples	E
	CO5: Establish a comprehensive understanding about the concept of growth of microbes in food	U
	CO6: To Understand the knowledge on history of microbiology	U
Semester 3		
FTL 3 CJ 201 NUTRITION SCIENCE	CO1: Define the concept of health and nutrition	E
	CO2: Discuss the microelements, macro elements, vitamins and minerals in the food	U
	CO3: Compare the nutrients supplied by the food	AP
	CO4: Test the relationship between diet and health and to changing food and nutritional attitudes	AN
	CO5: Developing supplementary nutrition program whenever necessary.	R
FTL3CJ 202 FOOD CHEMISTRY	CO1: Understand basic constituents of foods and their response to various physio-chemical alterations.	U
	CO2: Create better understanding of food pigments and their control measurements.	C

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will be able to	COGNITIVE LEVEL
	CO3: Understand the importance of enzymes from various sources for chemical modification of foods	U
	CO4: Analyse the factors which influence the textural quality of foods.	AN
	CO5: Analyse the various constituents of foods.	AN
Semester 4		
FTL4CJ 203 FOOD PROCESSING AND PRESERVATION TECHNOLOGY	CO1: Understanding of thermal processes, their industrial, and ability to apply this knowledge in various contexts.	U
	CO2: Apply knowledge and skills related to preserving products at low temperature. Practical skills in implementing and optimizing low temperature preservation methods, along with an awareness of safety measures and quality control.	AP
	CO3: Apply knowledge of the biological processes and chemical methods of preservation.	AP
	CO4: Demonstrate knowledge of innovative preservation methods and also gain insights into sustainable practices, quality control and regulatory considerations within the dynamic field of food science.	AP
	CO5: Equip individual with the knowledge and skill to develop new product in market	AP
	CO6: Create basic knowledge on recent trends in food preservation.	C
FTL4CJ 204 CEREALS ,PULSES AND OIL SEEDS TECHNOLOGY	CO1: Memorise details of millet chemistry	U
	CO2: Understand the processing method of pulses, nuts and oilseeds	AP
	CO3: Distinguish the baking technologies of bread, cake, biscuits and confectionary	AP
	CO4: Interpret various processing technologies related to rice, wheat, millets, pulses, nuts and oil seeds	AP

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO5: Create Knowledge on processing of cereals, pulses and oil seeds	C
FTL4CJ 205 SPICES AND PLANTATION CROPS	CO1: Understanding of various processing technology in spices.	U
	CO2: Analyzing Quality attributes of spices	AN
	CO3: Create knowledge about Chemical Composition of spices and Manufacturing technology of spice oil and oleoresin	C
	CO4: Evaluate proximate composition of different spices	E
	CO5: Understand processing of plantation crops.	U
	CO6: Create Practical Knowledge in spice technology	C
Semester 5		
FTL5CJ 301 BASICS OF FOOD ENGINEERING AND PACKAGING TECHNOLOGY	CO1: Understand food packaging principles, packaging materials, types related to use with various food systems and packaging permeability.	U
	CO2: Understand about Passive and active packaging, Reuse, disposability and printing of packaging, Labelling techniques and legislative requirements for labelling food and beverage products	AN
	CO3: Familiarize the purpose and principles of food packaging and examine the operations involved in packaging material manufacture.	U
	CO4: Evaluate environmental issues, regulations and quality control associated with food packaging.	E
	CO5: Identify and evaluate the suitability of processing and packaging techniques for various foods.	U
FTL5CJ 302	CO1: Equip students with advanced knowledge of processing of fruits and vegetables	U

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TECHNOLOGY OF FRUITS AND VEGITABLES	CO2: Provide knowledge about various technologies used in the production and packaging of fruits and vegetables	AP
	CO3: Apply knowledge of preservation methods	AP
	CO4: Understand the preparation specification and quality control of products	AP
	CO5: Familiarize different aspects of post harvest technology along with storage practices and storage disorders.	AP
	CO6: Create basic knowledge on recent trends in processing techniques of fruits and vegetables.	C
FTL5CJ 303 ENTREPRENEURSHIP DEVELOPMENT	CO1: Equip students with knowledge of Entrepreneurial terminologies	U
	CO2: Provide knowledge about various Agencies supporting Entrepreneurial growth of the individual	C
	CO3: Apply knowledge of fundamental issues of women Entrepreneurship	AP
	CO4: Understand the preparation and specification of projects for various business related to food sectors.	U
	CO5: Familiarize different aspects of food business supporters for Entrepreneurship development	U
Semester 6		
FTL6CJ 304 DAIRY TECHNOLOGY	CO1: Understand the composition and nutritive value of milk and milk products.	U
	CO2: Remember the importance of physics chemical properties of milk.	R
	CO3: Provide the Knowledge on importance of dairy processing technologies and equipment used.	U
	CO4: Understand knowledge on different types of market milk and fermented milk products	U
	CO5: Evaluate various technologies applied in dairy processing units.	E

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO6: Apply and Evaluate quality and safety regulations and its updations in dairy units.	AP
FTL6CJ 305 TECHNOLOGY OF ANIMAL FOODS	CO1: Solid understanding the principles and practices involved in processing animal derived foods.	U
	CO2: Provide knowledge about various technologies used in the production, preservation and packaging of animal based products such as meat, dairy and eggs	AP
	CO3: Apply knowledge of slaughtering methods, substantiate curing methods.	AP
	CO4: Equip students with knowledge of food safety and quality control measures to animal derived products.	AP
	CO5: To understand the concept of meat quality, composition, nutritive value and the principle factors influencing it and how to measure the major characteristics.	AP
	CO6: Create basic knowledge on recent trends in processing techniques of meat and poultry.	C
FTL6CJ 306 FOOD SAFETY AND FOOD PLANT LAYOUT	CO1: Foundational understanding of food safety and equipped to identify potential hazard, prevent contamination and able to maintain a safe food environment.	U
	CO2: Identify and manage risk associated with food safety and compliance with regulations.	AP
	CO3: Acquire skills to design, implement and maintain effective food safety programs and understanding the principles of risk assessment.	AN
	CO4: Evaluate food safety practices and systems and possess the skill to access risk, corrective actions and monitoring. Implement and analyse food handling, hazard analysis, hygiene practices, HACCP implementation.	E
SEMESTER 7		
	CO1: Build a strong foundation in food additives. Explore the history, classification and function in food additives, gaining	U

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will be able to	COGNITIVE LEVEL
FTL7CJ 402 FOOD ADDITIVES AND NEW PRODUCT DEVELOPMENT	insights into regulatory frameworks and safety considerations	
	CO2: Demonstrate proficiency in classifying food additives and evaluate technological processes in colorant production and understand synergies in flavour enhancers.	AN
	CO3: Understand the principles of new product development, including ideation, feasibility, assessment and formulation.	U
	CO4: Explore market trends, industry collaborations and future directions in new product development.	U
	CO5: Apply knowledge gained in real world scenarios through case studies and practical applications.	AP
	CO6: Be able to present a new product	AP
FTL7CJ 401 Food Microbiology II	CO1: Define the basic concepts and terminology and recall the key characteristics of common foodborne pathogens.	R
	CO2: Summarize the stages of microbial food spoilage and its impact on food quality and to interpret the significance of microbial diversity in fermented foods.	U
	CO3: Apply microbiological testing methods for quality control in different food products.	AP
	CO4: Analyze case studies of foodborne illness outbreaks to identify root causes.	AN
	CO5: Evaluate the microbiological quality of food products using appropriate criteria thus assess the reliability and validity of different microbiological testing methods	E
	CO6: Apply various microbiological testing methods for food and water quality determination and to analyze and interpret microbial data to assess the microbiological quality of samples.	AP
FTL7CJ 403	CO1: Understanding the principles of enzymes, their structure, function, and regulation in biochemistry or related field	U
	CO2: Understanding of the nutritional and biochemical aspects of carbohydrates, lipids, proteins, nucleic acids,	AP

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COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will be able to	COGNITIVE LEVEL
Food Biochemistry and Food Biotechnology	vitamins, and minerals. Applying this knowledge to assess dietary needs, recognize deficiency conditions, and understand the metabolic processes involved in maintaining overall health and well-being.	
	CO3: Understanding and applying R DNA technologies. Skills in gene cloning and manipulation of genetic material. Knowledge of the molecular basis of mutations and the ability to perform site-directed mutagenesis and also Understanding the ethical considerations and potential applications of genetic engineering in the food industry.	AP
	CO4: Understand the principles of microbial growth kinetics. Learn techniques for the isolation, preservation, and improvement of industrially important microorganisms. Familiarity with various types of fermentation processes and their applications. Gain practical knowledge of the component parts of the fermentation process, including media formulation, sterilization, inoculum preparation, and product extraction	U
	CO5: Comprehend the components of the fermentation process and bioreactor types. Demonstrate understanding of the production industrial products. Develop the ability to troubleshoot and optimize downstream processes to improve yields and product purity.	AP
	CO6: Understanding of biochemical analysis techniques, cell culture, fermentation processes, and their applications in various industries.	AP
FTL7CJ 404 Food Analysis	CO1: Deep understanding of different analytical applications and equipments in food laboratories	U
	CO2: Provide students with knowledge and skills in quality testing of food materials	AP
	CO3: Thorough Understanding of FSSAI specified quality parameters on important foods and their analysis.	AP
	CO4: Demonstrate knowledge on physical, chemical and microbiological analysis of foods by performing various experiments.	AP

Programme : BSc Food Technology		
COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO5: Equip individual to use the instruments and equipments in interpreting the quality of foods	AP
FTL7CJ 405 FOOD INDUSTRY MANAGEMENT AND AUDITING	CO1: Build fundamental knowledge on total quality management and detailed knowledge of the role of Quality Management (QM) in modern management. To realize the significance of TQM especially in food industries and focus towards more on the same.	U
	CO2: Demonstrate knowledge of quality management systems, their implementation and the practical steps needed for implementation. Demonstrate the ability to produce a quality manual. To build capability of preparing Quality management documents to get certifications.	AP
	CO3: Have detailed knowledge of certification and accreditation. Knowledge and insight of different quality management systems i.e. product quality management, safety and environmental management.	AP
	CO4: Build eco-friendly culture in current generation. Minimize all resource wastages and support growth of company.	U
	CO5: Provide an opportunity to learn food safety and quality auditing programme. Conduct quality auditing in the food industries.	AP
	CO6: Conduct and evaluate risk assessments on food safety problems in food industries.	AP
FTL8CJ 406 FOOD PROCESS ENGINEERING AND EQUIPMENTS	CO1: Deep understanding of different thermal operations, their applications, equipments used and ability to apply this knowledge in various contexts.	U
	CO2: Provide students with knowledge and skills related to low temperature operations. Practical skills in implementing and optimizing low temperature applications.	AP
	CO3: Thorough Understanding of different non-thermal engineering operations in food industry. It will enhance their basic knowledge with advanced novel techniques	AP

Programme : BSc Food Technology		
COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO4: Demonstrate knowledge of innovative filtration and separation methods in food industry. Equip the students to handle novel technologies in food industry	AP
	CO5: Equip individual to use the artificial intelligence and other digital systems to reduce the load and improve the efficiency and accuracy of work	AP
SEMESTER 8		
FTL8CJ 407 Techniques in Food Analysis	CO1: Deep understanding of different analytical applications and equipments in food laboratories	U
	CO2: Provide students with knowledge and skills in quality testing of food materials.	AP
	CO3: Thorough Understanding of FSSAI specified quality parameters on important foods and their analysis	AP
	CO4: Demonstrate knowledge on physical, chemical and microbiological analysis of foods by performing various experiments.	E
	CO5: Equip individual to use the instruments and equipments in interpreting the quality of foods practically.	AP
FTL8CJ 408 Food Storage and Infestation control	CO1: Understand the fundamental principles of food storage and recognize the diverse types of pests that can impact the integrity of stored food products	U
	CO2: Apply knowledge of the biology and behavior of common storage pests to implement effective monitoring and inspection techniques.	AP
	CO3: Demonstrate proficiency in the identification and classification of pests, enabling timely response to potential infestations.	AP
	CO4: Develop and implement preventive and control measures, utilizing integrated pest management (IPM) strategies to ensure food storage facilities meet regulatory standards	E
	CO5: Establish a comprehensive understanding of sanitation practices, emphasizing the importance of maintaining a clean and safe environment to prevent pest infestation.	AP

Programme : BSc Food Technology		
COURSE CODE & COURSE NAME	COURSE OUTCOME At the end of this BSc Food Technology course the student will able to	COGNITIVE LEVEL
	CO6: Evaluate and adhere to relevant regulations and compliance standards, ensuring the successful implementation of pest control measures in food storage premises.	AP
FTL8 CJ 489 Research Methodology in Food Technology	CO1: Develop proficiency in articulating and formulating well-defined research problems with explicit objectives, incorporating crucial elements such as research design, hypothesis construction, error analysis, and variable classification. Acquire mastery in employing effective organizational techniques while cultivating critical thinking and analytical skills.	U
	CO2: Empower students with a solid foundation in data collection and analysis, enabling them to approach complex problems with a systematic and statistically sound methodology.	AP
	CO3: Equip with the essential skills to produce high quality research documents effectively communicate the findings and formulate proposals for acquiring grants.	AP
	CO4: Cultivate an understanding of the ethical aspects involved in scholarly publishing, including plagiarism, proper citation practices, and understanding the profound respect for intellectual property rights.	U
	CO5: Utilizing reference management software such as Zotero and Mendeley to efficiently organize and cite sources in academic research and demonstrating effective communication of ideas, potentially leading to successful publication	C