PROGRAMME OUTPUT- UG

BSc. FOOD SCIENCE AND QUALITY CONTROL

PROGRAMME OUT PUT - Train the students to be competent working professionals in the food industry,encourage students to become entrepreneurs and to create awareness about importance of safe and nutritious food and to provide diagnostic analysis of food products

PROGRAMME SPECIFIC OUTCOME - To train the students to be competent working professionals in the food industry,encourage students to become entrepreneurs and to create awareness about importance of safe and nutritious food and to provide diagnostic analysis of food products

COURSE OUTCOMES-

COURSE	OUTCOME
FS1CRT01- Basic Nutrition	Understand the relationship between nutrition and human well being and to understand the functions and importance of all nutrients.
FS1CRT02- Basic Food Chemistry	Students acquire knowledge on the macro and micro constituents of the food and know the structure and chemical characteristics of constituents of food
FS1CRT03- Methodology in the Discipline of Food Science	Students get familiarise to different aspects of food science, emerging trends in the field and to understand research oriented techniques and data analysis
CH1CMT01- Basic Thoeretical and analytical chemistry	Students get a basic knowledge in atomic structure, fundamental concepts and analytical techniques
ZY1CMT01- Non Chordate Diversity	Leaners get familiarize with rich diversity of organisms and evolutionary significance in invertibrate fauna
MM1CMT01- Partial Differentiation, matrices, trignometry and numerical methods	Upon completion students can apply differentiation, trignometry, matrics and numerical methods in different fields of science
Semester II	
FS2CRT04- Food Commodities	Learners understand the basic commodities both raw and processed in food industries and various aspects of their quality, production and distribution
FS2CRT05-Food Preservation	Students acquire knowledge on different preservation techniques used to enhance the shelf span of food products
FS2CRT06- Food Microbiology, Sanitation and Hygiene	Students get an elementary knowledge about micro organisms and develop an understanding of industry and in maintenance of health

FS2OJP07-Industrial Training(one month)	Leaners acquire practical knowledge in food production and its analysis in application level
CH2CMT02- Basic Organic Chemistry	Students will get guided to the mechanism in organic chemistry
ZY2CMT02- Chordate Diversity	Students learn the physiological and anatomical peculiarities of vertibrate and their economic importance
MM2CMT02- Integral Calculus and Differential Equations	Students understand the scope of differents calculus and its application
CH2CMP01- Volumetric Analysis	Students get expertize in different volumetric analysis methods
ZY2CMP01-Non chordate diversity and chordate diversity(practicals)	Students acqire a practical skill and familiarise in dissection and identification of organisms
Semester III	
FS3CRT08-Processing Technology of Animal Foods	The course enable students to understand the importance and methods of post processing technology of animal foods
FS3CRT09-Sensory Evaluation	Understand different aspects of sensory science and its application and its importance as an analytical tool
FS3CRT10-Food Packaging Materials and Testing	Students become familiar with different methods and materials used for packaging, technology behind packaging and its interaction with food and shelf life testing
CH3CMTO4- Inorganic and organic chemistry	The understanding of facts and concepts in inorganic and organic chemistry will be enhanced.
ZY3CMT03- Physiology and Immunology	Leaners could understand the organ systems and immunological activities in the body
MM3CMT03- Vector calculus, analytical geometry and abstract algebra	Students will be familiar with techniques in vector calculus, geometry and algebra
Semester IV	
FS4CRT11-Processing Technology of Plant Foods	To enable students to understand the importance and to gain knowledge in the processing of plant foods
FS4CRT12-Analytical Instrumentation	Students gain knowledge about principles and application of different instruments used in food analysis.
FS4CRT13- Food Safety and Quality Assurance	To provide a basic understanding of quality concepts and practice in food companies, planning and organization of quality control system and provide basic aquaintance with standard and specifications
FS4OJP14- Industrial Training (One Month)	Acqire practical knowledge in food industry and become able to compete in the field
CH4CMT06- Advanced Bio-organic chemistry	Students understand the basic bio organic components, its structure and functions

ZY4CMT04- Applied Zoology	Students get exposed to various applied methods in zoology like aquaculture, horticulture etc
MM4CMT04- Fourier series, Laplace Transform and complex analysis	Students get knowledge in relevant techniques in mathematics
CH4CMP03- Organic chemistry practicals	Students get familiarized with qualitative analysis of organic compounds
ZY4CMP02- Physiology and Immunology and Applied Zoology Practicals	Students will be able to handle microscope and various physiological tests and undestand the identification and economic importance of applied zoological techniques
FS1CRT01- Basic Nutrition	Understand the relationship between nutrition and human well being and to understand the functions and importance of all nutrients.
Semester V	
FS5CRT15-Food Analysis (Theory)	To understand different sampling techniques employed in chemical analysis of foods and various chemical methods of food analysis
FS5CRT16-FoodToxicology	To make students aware of the toxicity in foods and assess the safety of food
FS5CRT17-Environmental Studies and Human Rights	Acquaint the student with the significance of Environmental Science. Enable the students to understand various kinds of pollution in the environment, their impacts on the ecosystem and their control measures Make the students aware about various environmental laws in India and the role of various movements in the protection of nature and natural resources.
FS5OPT19- Human Health and Nutrition	To make students aware of relationship eith nutrion and health, nutritional programmes and nutritional deficiency diseases
FS5CRP21- Basic Microbiology Practicals	To study the different laboratory equipments in the lab, understand the preparation of media, - To get thorough with various staining techniques, isolation and enumeration of microbes
FS5CRP22- Food Aanlysis and Adulteration Testing Practicals-I	Familiarise different laboratory equipments and analysis methods of various foods
FS5CRP23- Food Chemistry Practicals	To understand different chemical analysis methods of food
Semester VI	
FS6CRT24-Entreprenuership Development & Management in Food Industry	Understand functions, roles and duties of manager and acquire basic understanding about entreprenuership
FS6CRT25-Food Adulteration & Testing	To enable students to familiarize about the testing methods for adulteration
FS6CBT27- Basic Food Engineering	To provide an understanding of basics in food engineering techniques
FS6CRP29-Advanced Food Microbiology Practicals	Study the standard plate count method, identify

	microorganisms based on their enzymatic activity, evaluate micro flora of various food samples, assess sanitary quality of water
FS6CRP30-Food Analysis and Adulteration Testing Practicals- II	Understand analysis methods of various food, adulteration tests and sensory evaluation of food
FS6CRP31-Advanced Food Chemistry Practicals	Students become able to perform various chemical analysis of food
FS6DSP32-Project/Dissertation	Promote the research aptitude of the students and will get an opportunity to get involved in research activities.

BVoc FOOD TECHNOLOGY AND ANALYSIS

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COURSE OUTCOME

COURSE	OUTCOME
SEMESTER I	
BOCG101- Listening and speaking skills in English	Leaners will acquire the basic knowledge in speaking and listening
BOCG102 : IT for Business	Acquire knowledge in using various softwares
BOVG101 : Basic Theoretical and Analytical Chemistry	Students become familiarize to fundamentals of theoretical and analytical chemistry
BOVS101 : General Mathematics and Statistics	After completion Leaners get an idea about general calculus in mathematics
BOVS102: Food Chemistry	Acquire knowledge on the macro and micro constituents of the food and know the structure and chemical characteristics of constituents of food
BOVS103: Food Chemistry practical	To understand different chemical analysis methods of food
SEMESTER II	
BOCG201 : Writing and Presentation Skills in English	Students get familiarize to writing patterns and Develop a presntation skill
BOVG201 : Basic organic chemistry	Students will get guided to the mechanism in organic chemistry

BOVG202: Nutritional Biochemistry	Enable students to understand the biochemical pathways and the relevance to their lives
BOVS201: Food Preservstion	Acquire knowledge on different preservation techniques used to enhance the shelf span of food products
BOVS202: Dairy Technology	Understand the composition, nutritive value and uses of dairy and broaden and deepen the coverage of production, processing and utilization milk and milk products
BOVS203: Internship I- Dairy industry	Undestand the processing and analysis of milk and milk products in practical scenario
SEMESTER III	
BOCG301: Principles of Management	Understand functions, roles and duties of manager and management in industry
BOVG301: Bio organic Chemistry	Students understand the basic bio organic components, its structure and functions
BOVG302: Food Packaging Technology	To be familiar with different methods and materials used for packaging, technology behind packaging and its interaction with food and shelf life testing
BOVS301: Post Harvest Technology I	Familiar with manufacturing and processing of various foods
BOVS302: Food Additives and Food Safety Standards	Understand the structure and chemical characteristics of chemicals added to food
BOVS302: Food Additives Practical	Students able to perform analysis of food additives by different methods
SEMESTER IV	
BOCG401: Softskills and Personality Development	Improve ethical and social values of students and improve their personality
BOVG401: Advanced Physical Chemistry	Students will expertize in different techniques in Physical Chemistry
BOVG402: Post Harvest Technology II	Understand manufacturing, processing and quality factors of various foods
BOVS401: Food Microbiology(T)	Acquire an elementary knowledge about physiology of microorganisms, their control and their role in food borne illnesses and food spoilage
BOVS402: Food Microbiology Practical	To study the different laboratory equipments in the lab, understand the preparation of media, - To get thorough with various staining techniques, isolation and enumeration of microbes
BOVS403: Internship II	Gain practical knowledge in food industry
SEMESTER V	
BOCG501: Environmental Studies	Acquaint proper awareness among the students on environment
BOVG501: Analytical Instrumentation	Students gain knowledge about principles and application of different instruments used in food analysis.

BOVG502: Sensory Evaluation	Understand different aspects of sensory science and its application and its importance as an analytical tool
BOVS501: Food Toxicology	To make students aware of the toxicity in foods and assess the safety of food
BOVS502: Food Analysis-I	To understand different sampling techniques employed in chemical analysis of foods and various chemical methods of food analysis
BOVS503: Food Analysis-I Practical	Familiarise different laboratory equipments and analysis methods of various foods
SEMESTER VI	
BOCG601: Entreprenuership Development	Understand functions, roles and acquire basic understanding about entreprenuership
BOVG601: Food Engineering	Understand the operations of food industries as a major functional area.
BOVG602: Food Safety Management Systems	Contribute a deep insight to the principles of food quality systems and management of food safety and quality assurance, render a basic knowledge in assessment of food quality, hazards impending the food safety and regulation implemented to assure food quality
BOVS601: Food Analysis II	To understand different sampling techniques employed in chemical analysis of foods and various chemical methods of food analysis