

BSC. FOOD TECHNOLOGY

Courses and Course Outcome

Common Courses		
Course Code	Course Name	Course Outcome
ENG 1 A01	Transactions: Essential English Language Skills	<ul style="list-style-type: none">• To enable the necessary macro and micro. English language skills to learners to enable them to express their feelings, opinions, ideas and thoughts fluently and accurately in a variety of personal and professional contexts.• To create in readers a definitive sense of the stylistic variations of English and how they are used in real life.• To inculcate in learners a taste for deeper pursuit and acquisition of advanced level of skills in English• To guide them on how to participate in discussions and make seminar presentations with special focus on specific vocabularies and styles of usage in such contexts
ENG 1 A02	Ways With Words: Literatures in English	<ul style="list-style-type: none">• To help students develop the acumen to read, appreciate and discuss literature• To introduce students to the linguistic qualities of literary texts and to unravel the many meaning of the text.# To acquaint the students with different genres of• literature and to analyze them
ENG2 AO3	Writing for Academic & Professional Success	<ul style="list-style-type: none">• To develop writing skills, to learn to integrate writing and thought and to apply the conventions of academic writing correctly.• To acquire the correct sense of format, syntax, grammar, punctuation and spelling

ENG2 A04	Zeitgeist: Readings on Contemporary Culture	<ul style="list-style-type: none"> • To inculcate the values enshrined in the constitution of India and to provide an insight on the secular framework of the country • To familiarize the learners with concepts such as conservation, sustainability and the life of the marginalized and their interconnectedness. • To foster among learners an awareness of the diverse problems faced by women and the sexual minorities and • to promote a culture of inclusion and mutual respect.
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CORE COURSES

FTL 1 B 01	PERSPECTIVES OF FOOD SCIENCE & TECHNOLOGY	<ul style="list-style-type: none"> • The basic knowledge of food science and technology. • Structure and composition of different types of foods. • Basics of quality assessment, nutritional factors and health foods. • Knowledge in Food additives • An idea about journals, research centers and leading industries
FTL 2 B 03 F	FOOD MICROBIOLOGY	<ul style="list-style-type: none"> • 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 them.
FTL 3B 05	FOOD ENGINEERING	<ul style="list-style-type: none"> • 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 • Understand the working principle of heat exchangers, evaporators, driers and boilers

FTL 4 B 07	FOOD CHEMISTRY & ANALYTICAL INSTRUMENTATION	<ul style="list-style-type: none"> • 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 organoleptic character of foods. • To provide basic knowledge of structure, composition, chemical reaction & classification • To know importance and properties of minor nutrients. • To familiarize the principles and working of Instruments for food analysis
FTL 5 B 09	FTL 5 B 09 FOOD MICROBIOLOGY II	<ul style="list-style-type: none"> • Understand microbiological techniques for the isolation of pure culture of Microorganisms. • 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 product. • To perform and analyze the microbiological safety of milk and water • Students will acquire knowledge on techniques for the isolation epidemiology of food borne, and spoilage of microorganism, the microbiology of water, milk, fermented foods
FTL5B10	CEREALS, PULSES AND OIL SEEDS TECHNOLOGY	<ul style="list-style-type: none"> • Familiarize on milling technologies of rice & wheat. • Knowledge on baking technologies of bread, cake, biscuit and confectionary. • Knowing the processing methods of pulses, nuts and oilseeds. • Detailed description of millet chemistry • To introduce science & technology associated with cereals, pulses & oil seeds. • To exposure to various baking technologies including bread, cake, biscuit and confectionaries • To provide a good knowledge on processing technologies related to rice, wheat, millets, pulses, nuts and oilseeds.
FTL 5 B 11	FOOD PRESERVATION & PACKAGING TECHNOLOGY	<ul style="list-style-type: none"> • The core paper on Technology of Food Preservation enables the students to: • 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. • Clear the usual confusion for using various chemical preservatives • Dominate the common preservation techniques with the recent and advanced one. • To be competitive with innovative ideas for developing substantial consumer products.

FTL 6 B 15	DAIRY TECHNOLOGY	<ul style="list-style-type: none"> • Lists the components of milk. • Signify the importance of physico-chemical properties of milk • Providing the importance of dairy processing technologies and equipment used • Make more knowledge on different types of market milk and fermented milk products • Provide more information on CIP methods.
FTL 6 B 16	TECHNOLOGY OF ANIMAL FOODS	<ul style="list-style-type: none"> • 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 on their shelf life • Quality parameters of egg and the preservation methods from ancient to modern technologies • A clear idea on fish processing Technology.
FTL 6 B 17	FOOD SAFETY, FOOD LAWS ®ULATIONS	<ul style="list-style-type: none"> • Upon completion of the food safety regulations and packaging paper students will be able to understand the importance of food safety and hygiene and can apply it at industrial level. • Students will recognize the national and international standards and practices for food safety and can implement it at industries. • Students can take new concept of food plant sanitation and apply them to another situation. • Students can implement the updated FSSAI act at analysis as well as production level.

COMMON GENERAL COURSES

A 014	NUTRITION AND HEALTH	<ul style="list-style-type: none"> • Developing supplementary nutrition program where ever necessary • Provided information about appropriate diet • Increasing the nutrition knowledge and promoting desirable food behavior and nutritional practice. • Acquired basic knowledge of what constitute a nutritious diet and how people can best meet their nutritional needs from available recourses. • Understanding the relationship between diet and health and to changing food and nutritional attitude • Familiarize the importance of food and health • Acquire knowledge of energy requirements for various activities • Exposure to nutrients in foods.
A11	BASIC NUMERICAL SKILLS	<ul style="list-style-type: none"> • 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.
A12	INFORMATICS AND EMERGING TECHNOLOGIES	<ul style="list-style-type: none"> • To understand about the basic parts of the computer and its memory devices. • To recognize scientific databases • To distinguish wireless technologies • To understand the basic principles and applications of optical fibers, lasers, holography and biometrics. • To recognize the significance of cyber security.

A13	ENTREPRENEURSHIP DEVELOPMENTAL SCIENCE	<ul style="list-style-type: none"> • To appreciate the role of entrepreneur of economic growth • To recognize 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 recognize the significance of environmental policies and regulations.
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COMPLEMENTARY COURSES

PHY1C01	Properties of matter & Thermodynamics	<ul style="list-style-type: none"> • Understand the basic principles of elasticity • Understand the concepts of surface tension • Understand the aspects of viscosity • Understand the basic principles of thermodynamics
PHY2C02	Optics, Laser & Electronics	<ul style="list-style-type: none"> • Understand the basic concepts of interference and diffraction • Understand the concepts of polarization • Understand the fundamentals of electronics • Understand the important principles of laser physics.
PHY3C03	Mechanics, Relativity, Waves and Oscillations	<ul style="list-style-type: none"> • Understand the basic ideas of frames of reference and the principles of conservation of energy and momentum • Understand the concepts of relativity • Understand the basic ideas of oscillations and waves • Understand the basic ideas of modern physics
PHY4C04:	Electricity, Magnetism and Nuclear physics	<ul style="list-style-type: none"> • Understand the basic ideas of static and current electricity • Understand the concepts of magnetism • Describe the fundamental concepts of nuclear physics • Understand the basic ideas of cosmic rays and elementary particles

CHE1C01	GENERAL CHEMISTRY	<ul style="list-style-type: none"> • To understand and to apply the theories of quantitative and qualitative analysis. • To understand the theories of chemical bonding • To appreciate the uses of radioactive isotopes. • To understand the importance of metals in biological systems.
CHE2C02	PHYSICAL CHEMISTRY	<ul style="list-style-type: none"> • To understand the importance of free energy in defining spontaneity. • To realize the theories of different states of matter and their implication • To understand the basic principles of electrochemistry.
CHE3C03	ORGANIC CHEMISTRY	<ul style="list-style-type: none"> • To understand the basic concepts involved in reaction intermediates. • To realize the importance of optical activity and chirality. • To appreciate the importance of functional groups and aromatic stability. • To understand the basic structure and importance of carbohydrates, nucleic acids, alkaloids and terpenes.
CHE4C04	PHYSICAL AND APPLIED CHEMISTRY	<ul style="list-style-type: none"> • To understand the basic concepts behind colloidal state and nano chemistry • To understand the importance of green chemistry and pollution prevention. • To appreciate the importance of different separation methods and spectral techniques. • To understand the extent of chemistry in daily life

