



CURRICULUM & SYLLABUS

BACHELOR OF SCIENCE (B.Sc.) (Hons.)

3 Year Graduate Degree Programme

IN FOOD TECHNOLOGY

[w. e. f. Academic Year: 2021-2022]

Under the Choice Based Credit System (CBCS)

Department of Food Technology

Faculty of Science & Humanities

SRM University, Delhi-NCR, Sonapat, Haryana

DEPARTMENT OF FOOD TECHNOLOGY

VISION

The department of food technology offers a modern and comprehensive skill-based curriculum at all levels. To prepare students for professional as well as private life. To not only train them with the core components but also in areas that are need-based, innovative and relevant keeping in pace with the dynamics of the growing food industry. The department is focused to contribute to scholastic and experimental knowledge through sheer dedication and excellence to prepare future academicians, scientists, and entrepreneurs.

MISSION

- To demonstrate thorough knowledge and understanding of the food technology curriculum.
- To apply the principles of food science to preserve, process and package to assure the quality and safety of food products.
- To understand that the real-world problems in the food industry through the consecutive acquisition of knowledge and its application to improve the safety and quality of a given food or process.
- To bridge the gap between industry and academia by imparting technical/experimental knowledge, along with its application in the practical world.
- To acquaint students with knowledge and skills, including “learning how to learn”, necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, and adapting to changing trades and demands of the workplace through knowledge/skill development/reskilling.
- To provide professional competency and entrepreneurial skills for economic empowerment.
- To encourage innovation through multidisciplinary research and development activities.
- To inculcate human values and ethics into students to serve the society and nation, in all possible ways.

FOOD TECHNOLOGY GRADUATE EMPLOYABILITY ATTRIBUTES

- **Sound knowledge & understanding of domain areas along with fundamental hold on Core Aspects:** Thorough knowledge about food composition & its physicochemical, nutritional, microbiological and sensory aspects.
- **Technical Skills:** Ability to adapt to current and upcoming skills evolving with the dynamics of food production and analysis.
- **Product Development:** Not only limited to new product development, but to becoming a Patent holder.
- **Leadership, Team Work & Effective Communication Skills:** Function as a member of an interdisciplinary problem-solving team and aware of ethical conduct.
- **Innovative & Critical Thinking:** Developed critical thinking and problem-solving abilities to take on any future challenges.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

B.Sc. (H) Food Technology is a three-year undergraduate program with specialization in food sciences. The program fosters interdisciplinary approach to not only train them with the core components, but also in areas that are need-based, innovative and relevant keeping in pace with the dynamics of the growing food industry.

The program educational objectives of the course are:

PEO 1: To enable the students to learn the food composition, along with basic food concepts and their relevance.

PEO 2: To learn technologies of food processing and preservation.

PEO 3: To learn about food engineering and packaging.

PEO 4: To learn analytic knowledge related to food testing and quality.

PEO 5: The importance of food safety and quality management, along with food laws and regulations.

PEO 6: To develop communication and critical thinking skills, along with ability to innovate and take on leadership roles.

PROGRAM LEARNING OUTCOMES (PLOs)

At the end of the program in B.Sc. (Hons.) Food Technology, a student is expected to exhibit the under mentioned:

PLO 1: Comprehensive Knowledge of various areas related to food science and technology.

PLO 2: Know-how of processing and preservation techniques.

PLO 3: Understanding of food engineering and packaging in the food industry.

PLO 4: Ability to communicate the results of scientific work in oral, written and electronic formats.

PLO 5: Relevance and significance of food safety, food quality, food plant sanitation, food laws and regulations.

PLO 6: Enhanced Critical thinking skills and an inclination towards inter-disciplinary approach to projects or any challenges.

PLO 7: Innovative approach towards any future opportunities, or endeavors.

MAPPING MATRIX OF PEOs & PLOs

PLO PEO	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
PEO 1							
PEO 2							
PEO 3							
PEO 4							
PEO 5							
PEO 6							

B.Sc. (H) Food Technology

1st Semester

CODE	CATEGORY	COURSE	L	T	P	C
21FTBS101	CORE	Food Science Principles	3	1	0	4
21FTBS151	CORE	Food Science Principles Lab	0	0	4	2
21FTBS102	CORE	Fundamentals of Food Technology	3	1	0	4
21FTBS152	CORE	Fundamentals of Food Technology Lab	0	0	4	2
	OE	OE– I	3	0	0	3
	OE	OE-II	3	0	0	3
21CS151A	SEC	Elementary IT Skills	1	0	2	2
21AEEN101	AECC	Professional English	4	0	0	4
Total			17	2	10	24

2nd Semester

CODE	CATEGORY	COURSE	L	T	P	C
21FTBS201	CORE	Food and Nutrition	3	1	0	4
21FTBS251	CORE	Food and Nutrition Lab	0	0	4	2
21FTBS202	CORE	Food Preservation Technology	3	1	0	4
21FTBS252	CORE	Food Preservation Technology Lab	0	0	4	2
21SS251	SEC	Effective Communication Skills	0	0	2	1
21AEEV201	AECC	Environmental Studies	4	0	0	4
21FTBS271	AECC	Live Project I	0	0	2	1
	UOE	Indian Constitution & Polity	3	0	0	3
	OE	OE-III	3	0	0	3
Total			16	2	12	24

L: Lecture; T: Tutorial; P: Practical; C: Credits

B.Sc. (H) Food Technology
3rd Semester

CODE	CATEGORY	COURSE	L	T	P	C
21FTBS301	CORE	Technology Of Food Processing	3	1	0	4
21FTBS351	CORE	Technology Of Food Processing Lab	0	0	4	2
21FTBS302	CORE	Technology of Fruits, Vegetables and Plantation Crops	3	1	0	4
21FTBS352	CORE	Technology of Fruits, Vegetables and Plantation Crops Lab	0	0	4	2
21FTBS303	CORE	Dairy and Sea Food Technology	3	1	0	4
21FTBS353	CORE	Dairy and Sea Food Technology Lab	0	0	4	2
21SS352	SEC	Teamwork and Interpersonal Skills	0	0	2	1
	UOE	Entrepreneurship & New Venture Management	3	0	0	3
	OE	OE-IV	3	0	0	3
1FTBS371	AECC	Live Project II	0	0	2	1
Total			15	3	16	26

4th Semester

CODE	CATEGORY	COURSE	L	T	P	C
21FTBS401	CORE	Microbiology Of Food	3	1	0	4
21FTBS451	CORE	Microbiology Of Food Lab	0	0	4	2
21FTBS402	CORE	Technology of Cereals, Pulses and Oilseeds	3	1	0	4
21FTBS452	CORE	Technology of Cereals, Pulses and Oilseeds Lab	0	0	4	2
21FTBS403	CORE	Meat, Poultry and Egg Technology	3	1	0	4
21FTBS453	CORE	Meat, Poultry and Egg Technology Lab	0	0	4	2
21SS453	SEC	Presentation and Speaking Skills	0	0	2	1
	OE	OE- V	3	0	0	3
	UOE	Management & Organizational Behavior	3	0	0	3
21FTBS471	AECC	Live Project III	0	0	2	1
21FTBS472	AECC	Summer Internship				4
Total			15	3	16	30

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B.Sc. (H) Food Technology
5th Semester

CODE	CATEGORY	COURSE	L	T	P	C
21FTBS501	CORE	Food Engineering	3	1	0	4
21FTBS551	CORE	Food Engineering Lab	0	0	4	2
21FTBS502	CORE	Food Chemistry-I	3	1	0	4
21FTBS552	CORE	Food Chemistry-I Lab	0	0	4	2
	DSE	Discipline Specific Elective-I	3	1	0	4
	DSE	Discipline Specific Elective-I Lab	0	0	4	2
	DSE	Discipline Specific Elective-II	3	1	0	4
	DSE	Discipline Specific Elective-II Lab	0	0	4	2
21SS554	SEC	Professional Writing Skills & Interpersonal Skills: Strategies	0	0	2	1
21FTBS571	AECC	Live Project IV	0	0	2	1
Total			12	4	20	26

6th Semester

CODE	CATEGORY	COURSE	L	T	P	C
21FTBS601	CORE	Food Chemistry-II	3	1	0	4
21FTBS651	CORE	Food Chemistry-II Lab	0	0	4	2
21FTBS602	CORE	Fundamentals of Sensory Evaluation	3	1	0	4
21FTBS652	CORE	Fundamentals of Sensory Evaluation Lab	0	0	4	2
	DSE	Discipline Specific Elective-III	3	1	0	4
	DSE	Discipline Specific Elective-III Lab	0	0	4	2
	DSE	Discipline Specific Elective-IV	3	1	0	4
	DSE	Discipline Specific Elective-IV Lab	0	0	4	2
21FTBS601	SEC	Bakery and Confectionary	1	0	2	2
Total			13	4	18	26

L: Lecture; T: Tutorial; P: Practical; C: Credits

DISCIPLINE SPECIFIC ELECTIVE (DSE)						
CODE	CATEGORY	COURSE	L	T	P	C
Discipline Specific Elective-I, II (<i>any two</i>)						
21FTBS503	DSE	Food Supply Chain Management	3	1	0	4
21FTBS553	DSE	Food Supply Chain Management Lab	0	0	4	2
21FTBS504	DSE	Food Packaging	3	1	0	4
21FTBS554	DSE	Food Packaging Lab	0	0	4	2
21FTBS505	DSE	Nutraceutical and Functional Foods	3	1	0	4
21FTBS555	DSE	Nutraceutical and Functional Foods Lab	0	0	4	2
Discipline Specific Elective-III, IV (<i>any two</i>)						
21FTBS603	DSE	Food Safety and Quality	3	1	0	4
21FTBS653	DSE	Food Safety and Quality Lab	0	0	4	2
21FTBS604	DSE	Food Fermentation	3	1	0	4
21FTBS654	DSE	Food Fermentation Lab	0	0	4	2
21FTBS605	DSE	Flavor Chemistry and Technology	3	1	0	4
21FTBS655	DSE	Flavor Chemistry and Technology Lab	0	0	4	2

L: Lecture; T: Tutorial; P: Practical; C: Credits