B.Tech Food Science & Technology

About Food Science and Technology:

Food science & Technology is multi/hybrid disciplinary course which involves application of basic sciences like chemistry, nutrition, engineering, microbiology and the recent developments in the handling, processing and packaging from the farm to the consumers place.

Food Science and Technology Department makes food healthier, tastier, and safer for consumers

Food scientist and technologist can do??

The food industry is the largest industry in the world and needs highly trained professionals in food science and technology to ensure the supply, quality and safety of food for everybody on the planet.

Food scientists study the physical, microbiological, and chemical makeup of food to determine and make sure the quality and properties of foods including the nutritive value, flavour, palatability, colour, texture and storage life of food. Food technologists apply the knowledge gained from food scientists to design and manage the facilities and equipment involved in the processing and storage of foods. A Food Science and Technology Engineer is also an integral part of new research and development in the cutting edge technologies of food processing.

CAREER OPPORTUNITIES

Food Technology is a multi-talented field with a wider scope of opportunities. Graduates in food Science & technology employment prospects are very high, both in India and overseas. Increase in consciousness of health consumers are looking into nutritional value of foods, also variety in food. There is a growing demand in in a span of professional areas including R & D foods division like Dabur India Limited, Nestle, Parle research foundation, quality control, food microbiologists, quality control technologists process engineers, Food chemists, technical consulting, and sales and marketing etc. food suppliers and manufacturers, beverage manufacturers, airlines, wine companies, teaching institutions, commonwealth and state research laboratories, product developers etc.

For more opportunities, and also for new innovation in India students may refer Government organizations like Ministry Food Processing Industries, Food Safety and Standards Authority of India, Agriculture and Processed Foods Export Development Authority, National Institute for Food Technology and Entrepreneurship Management etc.

MODE OF SELECTION

Basic qualification for the course is XII Std. Students who have passed in 10+2 pattern from Kerala State Board of Higher Secondary Education or an equivalent Examination with Physics, Chemistry and Mathematics scoring minimum 50% marks and who have been ranked in the Kerala Engineering Agriculture Medical (KEAM) degree examination for Engineering stream

conducted by the Commissioner of Entrance Examination- Kerala shall be admitted based on their KEAM rank.

COURSE STRUCTURE

Course content is given more importance in practical / practice contents covering all aspects of Food Process Technology, Food Safety and Quality Assurance, Food Process Engineering, Food Business Management, Food Plant Operations, Basic Engineering Basic Sciences and Humanities.

Syllabus is as per ICAR 5th Deans Committee report. The course spreads over 4 years (8 semesters).

Semester-wise Distribution of Courses

Semester-I		
1	English Language	2 (1+1)
2	General Microbiology	3 (2+1)
3	Engineering Mathematics-I	2 (2+0)
4	Engineering Drawing and Graphics	3 (1+2)
5	Electrical Engineering	3 (2+1)
6	Workshop Technology	3 (1+2)
7	Crop Production Technology	3 (2+1)
8	Environmental Sciences & Disaster Management	2 (1+1)
	Physical Education	1 (0+1)*
Total		**21 (12+9)**
Semester-II		
1	Food Chemistry of Macronutrients	3 (2+1)
2	Food Microbiology	3 (2+1)
3	Food Thermodynamics	3 (2+1)
4	Computer Programming and Data Structures	3 (1+2)
5	Fluid Mechanics	3 (2+1)
6	Basic Electronics Engineering	3 (2+1)
7	Engineering Mathematics-II	2 (2+0)
8	Post Harvest Engineering	3 (2+1)
	NCC/NSS	1 (0+1)*
Total		**23 (15+8)**
* Non-Credit Course		
Semester-III		
1	Fundamentals of Food Processing	3 (2+1)
2	Processing Technology of Liquid Milk	2 (1+1)
3	Processing Technology of Cereals	3 (2+1)
4	Industrial Microbiology	3 (2+1)
5	Food Chemistry of Micronutrients	3 (2+1)
6	Heat and Mass Transfer in Food Processing	3 (2+1)

7	Unit Operations in Food Processing-I	3 (2+1)
8	Statistical Methods and Numerical Analysis	2 (1+1)
Total		**22 (14+8)**
Semester-IV		
1	Processing Technology of Dairy Products	3 (2+1)
2	Processing Technology of Legumes and Oilseeds	3 (2+1)
3	Food Biochemistry and Nutrition	3 (2+1)
4	Unit Operations in Food Processing-II	3 (2+1)
5	Food Biotechnology	3 (2+1)
6	Food Refrigeration and Cold Chain	3 (2+1)
7	Processing of Spices and Plantation Crops	3 (2+1)
8	Business Management and Economics	2 (2+0)
	Total	**23 (16+7)**
Semester-V		
1	Processing Technology of Fruits and Vegetables	3 (2+1)
2	Processing of Meat and Poultry Products	3 (2+1)
3	Instrumental Techniques in Food Analysis	3 (1+2)
4	ICT Applications in Food Industry	3 (1+2)
5	Food Process Equipment Design	3 (2+1)
6	Food Storage Engineering	3 (2+1)
7	Bakery, Confectionery and Snack Products	3 (2+1)
8	Marketing Management and International Trade	2 (2+0)
Total		**23 (14+9)**
Semester-VI		
1	Processing Technology of Beverages	3 (2+1)
2	Food Plant Sanitation	2 (1+1)
3	Food Packaging Technology and Equipment	3 (2+1)
4	Processing of Fish and Marine Products	3 (2+1)
5	Sensory Evaluation of Food Products	3 (1+2)
6	Food Additives and Preservatives	2 (1+1)
7	Food Quality, Safety Standards and Certification	2 (2+0)
8	Instrumentation and Process Control in Food Industry	3 (2+1)
9	Project Preparation and Management	2 (1+1)
	Total	**23 (14+9)**
Semester-VII		
1	Communication Skills and Personality Development	2 (1+1)
2	Entrepreneurship Development	3 (2+1)
3	Student READY - Experiential Learning Programme - I	7 (0+7)
4	Student READY - Experiential Learning Programme - II	7 (0+7)
5	Student READY - Research Project	3 (0+3)
6	Student READY - Seminar	1 (0+1)
	Total	**23 (3+20)**

Semester-VIII		
1	Student READY - Industrial Tour	2 (0+2)
2	Student READY - Internship/In-Plant Training	20 (0+20)
	Total	**22 (0+22)**
	Grand Total of Credit Hours	**180 (88+92)**

FEE STRUCTURE

Sl. No.	Item	Amount(Rs.)			
		First semester	Second , Fourth, Sixth & Eighth semester	Third, Fifth & Seventh semester	Total
1	Fee once to be remitted at the time of admission				
	Admission Fee	10,000	0	0	10,000
	Caution Deposit	5,000	0	0	5,000
	Academic Hand Book	250	0	0	250
2	Tuition Fee (Per Semester)	33,000	33,000	33,000	264000
3	Special Fee				
	Library fee (Annual)	0	1000	0	4,000
	Stationery fee (Annual)	0	1000	0	4,000
	Athletic/Sports & Games Fee (Per Semester)	250	250	250	2,000
	Association Fee (Per Semester)	100	100	100	800
	Magazine Fee (Annual)	0	500	0	2,000
	University Union Fee (Annual)	0	500	0	2,000
	Computer Fee (Per Semester)	1000	1000	1000	8,000
	Insurance (Annual)	100	0	100	400
	Total	**49,700**	**37,350**	**34,450**	**3,02,450**

Sd/-
REGISTRAR