# **SYLLABUS -2019 ONWARDS (AS PER FIFTH DEAN'S REPORT)**

# **B.Tech Food Technology**

#### **Department wise distribution of courses**

### **Food Process Technology**

Sl No	Catalogue	Name of the Course	Credit Hours
	No of the		
	Course		
1.	FPT 1101	Crop Production Technology	3 (2+1)
2.	FPT 1102	Environmental Science and Disaster	2 (1+1)
		Management	
3.	FPT 2103	Fundamentals of Food Processing	3 (2+1)
4.	FPT 2104	Processing Technology of Liquid Milk	2 (1+1)
5.	FPT 2105	Processing Technology of Cereals	3 (2+1)
6.	FPT 2206	Processing Technology of Dairy Products	3 (2+1)
7.	FPT 2207	Processing Technology of Legumes and	3 (2+1)
		Oilseeds	
8.	FPT 2208	Processing of Spices and Plantation Crops	3 (2+1)
9.	FPT 3109	Processing Technology of Fruits and	3 (2+1)
		Vegetables	
10.	FPT 3110	Processing of Meat and Poultry Products	3 (2+1)
11.	FPT 3111	Bakery, Confectionery and Snack Products	3 (2+1)
12.	FPT 3212	Processing Technology of Beverages	3 (2+1)
13.	FPT 3213	Food Packaging Technology and	3 (2+1)
		Equipment	
14.	FPT 3214	Processing of Fish and Marine Products	3 (2+1)
15.	FPT 3215	Sensory Evaluation of Food Products	3 (1+2)
		Total	43(27+16)

### **Food Process Engineering**

Sl No	Catalogue	Name of the Course	<b>Credit Hours</b>
	No of the		
	Course		
1.	FPE 1201	Food Thermodynamics	3 (2+1)
2.	FPE 1202	Fluid Mechanics	3 (2+1)
3.	FPE 1203	Post Harvest Engineering	3 (2+1)
4.	FPE 2104	Heat and Mass Transfer in Food Processing	3 (2+1)
5.	FPE 2105	Unit Operations of Food Processing-I	3 (2+1)
6.	FPE 2206	Unit Operations of Food Processing-II	3 (2+1)
7.	FPE 2207	Food Refrigeration and Cold Chain	3 (2+1)
8.	FPE 3108	Food plant and Equipment Design	4 (2+2)
9.	FPE 3109	Food Storage Engineering	3 (2+1)
10.	FPE 3210	Instrumentation and Process Control in Food Industry	3 (2+1)
		Total	31(20+11)

# **Food Safety and Quality Assurance**

Sl No	Catalogue No of	Name of the Course	Credit Hours
	the Course		
1.	FSQAM 1101	General Microbiology	3 (2+1)
2.	FSQAC 1102	Food Biochemistry and Nutrition	4(3+1)
3.	FSQAC 1203	Food Chemistry of Macronutrients	3 (2+1)
4.	FSQAM 1204	Food Microbiology	3 (2+1)
5.	FSQAM 2105	Industrial Microbiology	3 (2+1)
6.	FSQAC 2106	Food Chemistry of Micronutrients	3 (2+1)
7.	FSQAM 2207	Food Biotechnology	3(2+1)
8.	FSQAC 3108	Instrumental Techniques in Food	3 (1+2)
	EGO 111 2200	Analysis	2 (1 : 1)
9.	FSQAM 3209	Food Plant Sanitation	2 (1+1)
10.	FSQAC 3210	Food Additives and Preservatives	2(1+1)
11.	FSQAC 3211	Food Quality, Safety Standards and Certification	2 (2+0)
		Total	31(20+11)

## **Food Business Management**

Sl No	Catalogue No of the	Name of the Course	Credit Hours
	Course		
1.	FBM 2201	Business Management and Economics	2 (2+0)
2.	FBM 3102	ICT Applications in Food Industry	4 (2+2)
3.	FBM 3103	Marketing Management and International	2 (2+0)
		Trade	
4.	FBM 3204	Project Preparation and Management	2 (1+1)
5.	FBM 4105	Communication and Soft Skills	3 (2+1)
		Development	
6.	FBM 4106	Entrepreneurship Development	3 (2+1)
	_	Total	16(11+5)

## **Food Plant Operations**

Sl No	Catalogue	Name of the Course	Credit Hours
	No of the		
	Course		
1.	FPO 4101	Student READY - Experiential Learning	10 (0+10)
		Programme	
2.	FPO 4102	Student READY - Industrial Tour	2 (0+2)
3.	FPO 4103	Student READY - Research Project	3 (0+3)
4.	FPO 4204	Student READY - Seminar	1 (0+1)
5.	FPO 4205	Student READY – Internship/In-Plant	20 (0+20)

	Training	
	Total	36(0+36)

### **Basic Engineering**

Sl No	Catalogue	Name of the Course	Credit Hours
	No of the		
	Course		
1.	BE 1101	Engineering Drawing and Graphics	3 (1+2)
2.	BE 1102	Basic Electrical Engineering	3 (2+1)
3.	BE 1103	Workshop Technology	3 (1+2)
4.	BE 1204	Computer Programming and Data	3 (1+2)
		Structures	
5.	BE 1205	Basic Electronics Engineering	3 (2+1)
	·	Total	15 (7+8)

### **Basic Sciences and Humanities**

Sl No	Catalogue	Name of the Course	Credit Hours
	No of the		
	Course		
1.	BSH 1101	Engineering Mathematics-I	3(3+0)
2.	BSH 1202	Engineering Mathematics-II	3(3+0)
3.	BSH 3103	Statistical Methods and Numerical	2 (1+1)
		Analysis	
4.			_
		Total	8(7+1)

#### Semester wise distribution of courses

#### Semester I

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FSQAM 1101	General Microbiology	3 (2+1)
2.	FSQAC 1102	Food Biochemistry and Nutrition	4(3+1)
3.	BSH 1101	Engineering Mathematics-I	3(3+0)
4.	BE 1101	Engineering Drawing and Graphics	3 (1+2)
5.	BE 1102	Electrical Engineering	3 (2+1)
6.	BE 1103	Workshop Technology	3 (1+2)
7.	FPT 1101	Crop Production Technology	3 (2+1)
8.	FPT 1102	Environmental Sciences & Disaster	2 (1+1)
		Management	
9.	NC 1101	Physical Education (Non-Credit Course)	1 (0+1)*
		Total	24(15+9)

#### **Semester II**

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FSQAC 1203	Food Chemistry of Macronutrients	3 (2+1)
2.	FSQAM 1204	Food Microbiology	3 (2+1)
3.	FPE 1201	Food Thermodynamics	3 (2+1)
4.	BE 1204	Computer Programming and Data	3 (1+2)
		Structures	
5.	FPE 1202	Fluid Mechanics	3 (2+1)
6.	BE 1205	Basic Electronics Engineering	3 (2+1)
7.	BSH 1202	Engineering Mathematics-II	3 (3+0)
8.	FPE 1203	Post Harvest Engineering	3 (2+1)
9.	NC 1202	NCC/NSS (Non-Credit Course)	1(0+1)*
		Total	24 (16+8)

### **Semester III**

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FPT 2103	Fundamentals of Food Processing	3 (2+1)
2.	FPT 2104	Processing Technology of Liquid Milk	2 (1+1)
3.	FPT 2105	Processing Technology of Cereals	3 (2+1)
4.	FSQAM 2105	Industrial Microbiology	3 (2+1)
5.	FSQAC 2106	Food Chemistry of Micronutrients	3 (2+1)
6.	FPE 2104	Heat and Mass Transfer in Food Processing	3 (2+1)
7.	FPE 2105	Unit Operations in Food Processing-I	3 (2+1)
8.	BSH 3103	Statistical Methods and Numerical Analysis	2 (1+1)
		Total	22 (14+8)

#### **Semester IV**

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FPT 2206	Processing Technology of Dairy Products	3 (2+1)
2.	FPT 2207	Processing Technology of Legumes and	3 (2+1)
		Oilseeds	
3.	FPE 2206	Unit Operations in Food Processing-II	3 (2+1)
4.	FSQAM 2207	Food Biotechnology	3 (2+1)
5.	FPE 2207	Food Refrigeration and Cold Chain	3 (2+1)
6.	FPT 2208	Processing of Spices and Plantation Crops	3 (2+1)
7.	FBM 2201	Business Management and Economics	2 (2+0)
		Total	20(14+6)

### Semester V

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FPT 3109	Processing Technology of Fruits and	3 (2+1)
		Vegetables	
2.	FPT 3110	Processing of Meat and Poultry Products	3 (2+1)
3.	FSQAC 3108	Instrumental Techniques in Food Analysis	3 (1+2)
4.	FBM 3102	ICT Applications in Food Industry	4(2+2)
5.	FPE 3108	Food Plant and Equipment Design	4 (2+2)
6.	FPE 3109	Food Storage Engineering	3 (2+1)
7.	FPT 3111	Bakery, Confectionery and Snack Products	3 (2+1)
8.	FBM 3103	Marketing Management and International	2 (2+0)
		Trade	
		Total	25(15+10)

#### **Semester VI**

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FPT 3212	Processing Technology of Beverages	3 (2+1)
2.	FSQAM 3209	Food Plant Sanitation	2 (1+1)
3.	FPT 3213	Food Packaging Technology and Equipment	3 (2+1)
4.	FPT 3214	Processing of Fish and Marine Products	3 (2+1)
5.	FPT 3215	Sensory Evaluation of Food Products	3 (1+2)
6.	FSQAC 3210	Food Additives and Preservatives	2 (1+1)
7.	FSQAC 3211	Food Quality, Safety Standards and	2 (2+0)
		Certification	
8.	FPE 3210	Instrumentation and Process Control in	3 (2+1)
		Food Industry	
9.	FBM 3204	Project Preparation and Management	2 (1+1)
		Total	23(14+9)

#### **Semester VII**

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FBM 4105	Communication Skills and Personality	3(2+1)
		Development	
2.	FBM 4106	Entrepreneurship Development	3 (2+1)
3.	FPO 4101	Student READY - Experiential Learning	10(0+10)
		Programme	
4.	FPO 4102	Student READY - Research Project	3 (0+3)
5.	FPO 4103	Student READY - Seminar	1 (0+1)
		Total	20(4+116)

#### **Semester VIII**

Sl No	Catalogue No	Name of the Course	Credit Hours
	of the Course		
1.	FPO 4204	Student READY - Industrial Tour	2 (0+2)
2.	FPO 4205	Student READY - Internship/In-Plant	20 (0+20)
		Training	
		Total	22 (0+22)

**Grand Total of Credit Hours** 

180 (92+88)