

**DEPARTMENT OF FOOD TECHNOLOGY & BIOCHEMICAL ENGINEERING**  
**CURRICULUM OF 2ND TO 4TH YEAR OF THE**  
**UNDERGRADUATE ENGINEERING DEGREE PROGRAMME**

**SECOND YEAR-FIRST SEMESTER**

Subject Code	Name of the Subject	Category	Type	Contact L-T-P	Credit	Marks
FTBE/ BS/ B/T/ 211	Biochemistry & Nutrition - I	BS	B	3-0-0	3	100
FTBE/ BS/ B/T/ 212	Basics of Microbiology	BS	B	3-0-0	3	100
FTBE/ PC/ B/T/ 213	Food Chemistry	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 214	Chemical Engineering Fundamentals	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 215	Fluid Flow	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 216	Chemical Engineering Thermodynamics	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 217	Heat Transfer	PC	B	3-0-0	3	100
FTBE/ BS/ B/S/ 211	Basics of Microbiology Laboratory	BS	B	0-0-4	2	100
Total					23	800

**SECOND YEAR-SECOND SEMESTER**

Subject Code	Name of the Subject	Category	Type	Contact L-T-P	Credit	Marks
FTBE/ BS/ B/T/ 221	Biochemistry & Nutrition - II	BS	B	3-0-0	3	100
FTBE/ PC/ B/T/ 222	Food Microbiology	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 223	Principles of Food Preservation - I	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 224	Food Process Technology- I	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 225	Chemical Engineering Kinetics	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 226	Mechanical Operation	PC	B	3-0-0	3	100
FTBE/ ES/ B/ME/T/ 227	Thermal Engineering	ES	B	3-0-0	3	100
FTBE/ PC/ B/S/ 221	Chemistry of Food Laboratory	PC	B	0-0-4	2	100
Total					23	800

**THIRD YEAR-FIRST SEMESTER**

Subject Code	Name of the Subject	Category	Type	Contact L-T-P	Credit	Marks
FTBE/ PC/ B/T/ 311	Biochemical Engineering- I	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 312	Principles of Food Preservation - II	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 313	Food Process Technology - II	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 314	Food Process Technology - III	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 315	Mass Transfer Operation I	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 316	Microbial Technology	PC	B	3-0-0	3	100
FTBE/ ES/ H/T/ 317	Mechanics of Solid	ES	H	3-0-0	3	100
FTBE/ PC/ B/S/ 311	Microbial Technology Laboratory-I	PC	B	0-0-4	2	100
FTBE/ PC/ B/S/ 312	Biochemical Engineering Laboratory - I	PC	B	0-0-4	2	100
FTBE/ PC/H/S / 313	Assignment / Mini Project	PC	H	0-2-3	3.5	100
Total					28.5	1000

**THIRD YEAR-SECOND SEMESTER**

Subject Code	Name of the Subject	Category	Type	Contact L-T-P	Credit	Marks
FTBE/ PC/ B/T/ 321	Food Process Engineering	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 322	Food Packaging Technology	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 323	Biochemical Engineering - II	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 324	Mass Transfer Operation II	PC	B	3-0-0	3	100
FTBE/ PC/ B/T/ 325	Food Process Technology-IV	PC	B	3-0-0	3	100
FTBE/ ES/ H/ ME /T/ 326	Machine Design and Drawing	ES	H	3-0-0	3	100
FTBE/ PC/ B/S/ 321	Biochemical Engineering Laboratory II	PC	B	0-0-4	2	100
FTBE/ PC/ B/S/ 322	Microbial Technology Laboratory-II	PC	B	0-0-4	2	100
FTBE/ ES/H / ME/S/ 323	Machine Design and Drawing Laboratory	ES	H	0-0-3	1.5	100
FTBE/ PS/ B/S/ 324	Internship / Training	PS	B	0-0-0	0	0
Total					23.5	900

**FOURTH YEAR-FIRST SEMESTER**

Subject Code	Name of the Subject	Category	Type	Contact L-T-P	Credit	Marks
FTBE/ PC/ B/T/ 411	Quality Control & Food Safety	PC	B	3-0-0	3	100
FTBE/ HS/ B/T/ 412	Project Planning , Layout and Economics	HS	B	3-0-0	3	100
	Elective – I					
FTBE/ PE/ B/T/ 413A	Waste Valorization of Food & Biochemical Processes	PE	B	3-0-0	3	100
FTBE/ PE/ B/T/ 413B	Analytical Instruments in Food Analysis: Principles and Practices					
FTBE/ PC/ B/S/ 411	Food Analysis and Quality Control Laboratory	PC	B	0-0-4	2	100
FTBE/ PC/ B/S/ 412	Food Engineering and Food Preservation Laboratory- I	PC	B	0-0-4	2	100
FTBE/ PS/ B/S/ 413	Seminar and Group Discussion- I	PS	B	0-1-3	2.5	100
FTBE/ PC/ H/S/ 414	Design of Food and Biochemical Process Equipment	PC	H	0-1-4	3	100
	Open Elective	OE	B	3-0-0	3	100
Total					21.5	800

**FOURTH YEAR-SECOND SEMESTER**

Subject Code	Name of the Subject	Category	Type	Contact L-T-P	Credit	Marks
FTBE/ PC/ B/T/ 421	Waste Treatment Engineering	PC	B	3-0-0	3	100
	Elective-II					
FTBE/ PE/ B/T/ 422A	Food Biotechnology	PE	B	3-0-0	3	100
FTBE/ PE/ B/T/ 422B	Plant Operation, Maintenance and Safety					
FTBE/ HS/ B/ME/T/ 423	Industrial Management	HS	B	3-0-0	3	100
FTBE/ PC/ H/T/ 424	Non Thermal Food Processing Technologies	PC	H	3-0-0	3	100
FTBE/ PC/ H/T/ 425	Separation and Purification Processes	PC	H	3-0-0	3	100
FTBE/ PS/ B/S/ 421	Seminar and Group Discussion- II	PS	B	3-0-0	3	100
FTBE/ ES/ B/CHE-ME/S/ 422	Chemical and Mechanical Engineering Laboratory	ES	B	0-0-3	1.5	100
FTBE/ PC/ B/S/ 423	Food Engineering and Food Preservation Laboratory- II	PC	B	0-0-4	2	100
FTBE/ PC/ B/S/ 424	Design / Project	PS	B	0-0-8	4	100
Total					25.5	900