

Course Curriculum of
Integrated B.Tech.+M.Tech./MBA (Food Processing and Technology)
Durations - 5 years (10 Semesters)

SEMESTER- I

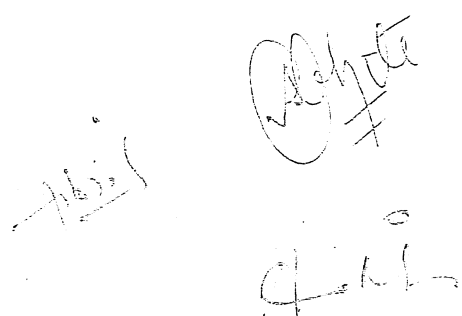
Course Type	Subject Code	Courses	L	T	P	Credits
THEORY						
C1	PH101	Applied Physics	3	1	0	4
C2	MA103	Mathematics –I/Biology	3	1	0	4
C3	EE102	Electrical Technology	2	0	0	2
SEC1	CS101	Computer Programming I	2	0	0	2
AECC1	ES101	Environmental Studies	3	0	0	3
AECC2	EN101	English Proficiency	2	0	0	2
AECC3	BS101	Human Values and Buddhist Ethics	2	0	0	2
PRACTICALS						
C4	PH104	Engg. Physics Lab	0	0	2	1
C5	EE104	Electrical Technology Lab	0	0	1	1
SEC2	CS181	Computer Programming Lab I	0	0	2	1
C6	ME-102	Engg. Workshop	0	0	3	2
		General Proficiency	0	0	0	0
		Total	17	2	9	24
		Total Contact Hours	28			

Skill Enhancement Course (SEC)

1. CS101 Computer Programming I
2. CS181-Computer Programming Lab-I

Ability Enhancement Compulsory Course (AECC):

1. EN 101 English Proficiency
2. BS101 Human Values and Buddhist ethics
3. ES101 Environmental Studies



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SEMESTER- II

Course Type	Subject Code	Courses	L	T	P	Credits
THEORY						
C7	CY101	Engineering Chemistry	3	1	0	4
C8	MA104	Mathematics -II	3	1	0	4
C9	EC101	Basic Electronics	2	0	0	2
C10	ME101	Engineering Mechanics	2	1	0	3
C11	FT 102	Food Chemistry	3	0	0	3
SEC3	CS-102	Computer Programming II	2	0	0	2
AECC4	EN102	Professional Communication	2	0	0	2
PRACTICALS						
C12	CY103	Engineering Chemistry Lab	0	0	2	1
C13	EC181	Basic Electronics Lab	0	0	2	1
SEC4	CS-181	Computer Programming Lab	0	0	3	2
C14	CE103	Engineering Graphics Lab	0	0	3	2
		General Proficiency	0	0	0	0
		Total	17	3	10	26
		Total Contact Hours	30			

Ability Enhancement Compulsory Course (AECC) :

1. EN102 Professional Communication

Skill Enhancement Course (SEC) :

1. CS-102 Computer Programming II
2. CS-181 Computer Programming Lab
3. CE103 Engineering Graphics

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SEMESTER- III

Course Type	Subject Code	Courses	L	T	P	Credits
THEORY						
C15	FT-201	Principles of Food processing & Preservation	3	0	0	3
C16	FT-203	Food Microbiology	3	0	0	3
C17	ME-208	Fluid Mechanics	3	1	0	4
GE1		Generic Elective 1	3	1	0	4
GE2		Generic Elective 2	3	0	0	3
OE1		Open Elective	3	0	0	3
PRACTICALS						
C18	FT-251	Food processing Lab	0	0	3	2
GE3		Generic Elective 3	0	0	3	2
		General Proficiency	0	0	0	0
		Total	18	2	6	24
		Total Contact Hours	26			

Generic Elective (GE) 1:

1. FT-205 Biochemistry & Biotechnology
2. BT-202 Principles of Biochemical Engineering

Generic Elective (GE) 2:

1. MA-201 Engg. Mathematics-III
2. MA-205 Quantitative Techniques in Food Technology

Generic Elective (GE) 3:

1. FT-253 Fundamental Biochemistry Lab
2. BT212 Biochemical Engineering Lab

Open Elective (OE):

Courses offered from other schools

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SEMESTER- IV

Course Type	Subject Code	Courses	L	T	P	Credits
		THEORY				
C19	FT-202	Food Nutrition	3	0	0	3
C20	FT-204	Unit Operations in Food Processing	3	0	0	3
C21	ME301	Heat and Mass transfer	3	1	0	4
SEC5	EE-202	Measurements and Instrumentation	2	0	0	2
GE4		Generic Elective	3	0	0	3
OE2		Open Elective	2	0	0	2
		PRACTICALS				
C22	FT-252	Food Chemistry Lab	0	0	3	2
C23	FT-254	Food Microbiology Lab	0	0	3	2
SEC6	EE-216	Measurements and Instrumentation Lab	0	0	2	1
	GP	General Proficiency	0	0	0	0
		Total	16	1	8	22
		Total Contact Hours	25			

Skill Enhancement Course (SEC)

1. EE-202 Measurements and Instrumentation
2. EE-216 Measurements and Instrumentation Lab

Generic Elective (GE) :

1. FT-206 Biotechnological Tools in Food Analysis
2. FT-208 Chemical Engineering Thermodynamics

Open Elective (OE) :

Courses offered from other schools

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SEMESTER- V

Course Type	Subject Code	Courses	L	T	P	Credits
THEORY						
C24	FT-301	Food Packaging	3	0	0	3
C25	FT-303	Fruit and Vegetable Processing	3	0	0	3
C26	FT-305	Processing of Milk and Milk Products	3	0	0	3
C27	FT-307	Food Process Engineering - I	3	0	0	3
C28	ME-303	Machine Design I	3	1	0	4
GE5		Generic Elective	3	0	0	3
PRACTICALS						
SEC7	FT-351	Training-I	0	0	3	2
C29	FT-353	Food Packaging and Food Quality Lab	0	0	3	2
C30	FT-355	Fruit, Vegetable and Milk Products Processing Lab	0	0	3	2
		General Proficiency	0	0	0	0
		Total	18	1	8	25
		Total Contact Hours	27			

Skill Enhancement Course (SEC):

1. FT-351 Training-I

Generic Elective (GE) :

1. FT 309 Entrepreneurship Development
2. FT-311 Plant Design and Economics

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SEMESTER- VI

Course Type	Subject Code	Courses	L	T	P	Credits
THEORY						
C31	FT- 302	Cereal and Pulse Processing	3	0	0	3
C32	FT- 304	Food Process Engineering - II	3	0	0	3
C33	FT-306	Plantation Products and Spices Technology	3	0	0	3
GE6		Generic Elective	3	0	0	3
DSE1		Discipline Specific Elective 1	3	0	0	3
DSE2		Discipline Specific Elective 2	3	0	0	3
PRACTICALS						
C34	FT- 352	Cereal and Pulse Processing Lab	0	0	3	2
C35	FT- 354	Food Engineering Lab	0	0	3	2
		General Proficiency	0	0	0	0
		Total	18	0	6	22
		Total Contact Hours	24			

Discipline Specific Elective (DSE) 1 :

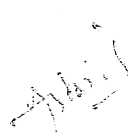
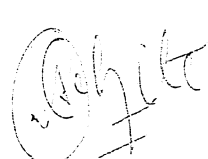
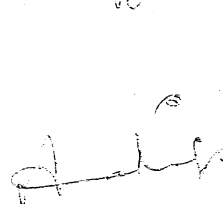
1. FT- 308 Food Process Equipment Design
2. FT-310 Technology of Fats and Oils

Discipline Specific Elective (DSE) 2 :

1. FT- 312 Food Plant Design and Sanitation Practices
2. FT- 314 Food Additives

Generic Elective (GE) :

1. FT- 316 Food Refrigeration and Cold Storage
2. FT-318 Kinetics of Food Systems

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SEMESTER- VII

Course Type	Subject Code	Courses	L	T	P	Credits
THEORY						
C36	MA-402	Simulation and Modeling	3	0	0	3
C37	FT-503	Engineering Properties of Biomaterials and Applications	3	0	0	3
C38	FT- 505	Advances in Food Process Technology	3	0	0	3
C39	FT- 507	Food Quality and Standards	3	0	0	3
DSE3		Discipline Specific Elective	3	0	0	3
GE7		Generic Elective	3	0	0	3
PRACTICALS						
C40	FT- 551	Advance Food Processing Lab I	0	0	8	4
SEC8	FT- 453	Training-II	0	0	2	1
		General Proficiency	0	0	0	0
		Total	18	0	10	23
		Total Contact Hours	28			

Skill Enhancement Course (SEC):

1. FT- 453 Training-II

Discipline Specific Elective (DSE):

1. FT-403 Food Dehydration Technology
2. FT-405 Food Storage Engineering

Generic Elective (GE) :

1. FT- 407 Industrial Safety and Hazard
2. FT- 409 Bakery and Confectionary Technology

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SEMESTER- VIII

Course Type	Subject Code	Courses	L	T	P	Credits
THEORY						
C41	FT- 502	Processing of Meat, Fish & Poultry Products	3	0	0	3
C42	FT- 504	Nutraceutical & Functional Foods	3	0	0	3
C43	MA-415	Biostatistics	3	0	0	3
DSE4		Discipline Specific Elective 4	3	0	0	3
DSE5		Discipline Specific Elective 5	3	0	0	3
GE8		Generic Elective Paper	3	0	0	3
PRACTICALS						
C44	FT- 552	Advance Food Processing Lab II	0	0	8	4
SEC9	FT-554	Seminar I	0	0	2	1
	GP	General Proficiency	0	0	0	0
		Total	18	0	10	23
		Total Contact Hours	28			

Discipline Specific Elective (DSE) :

1. FT-506 Food Texture and Rheology
2. FT- 508 Advances in Cereal and Pulse Processing

Discipline Specific Elective (DSE) :

1. FT- 510 Advances in Fruits and Vegetable Processing
2. FT- 512 Transportation Phenomenon in Food Processing

Generic Elective (GE) :

1. FT- 514 Agri Business Management
2. FT- 516 Food Supply Chain Management

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SUMMER SEMESTER(AFTER 8TH SEMESTER)

	Subject Code	Courses	L	T	P	Credits
	FT-600	Summer Project	0	0	0	5
		Total	0	0	0	5

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SEMESTER- IX

	Subject Code	Courses	L	T	P	Credits
		THEORY				
C45	FT- 601	Advanced Food Packaging	3	0	0	3
C46	FT- 603	Modern Techniques in Food Safety Analysis	3	0	0	3
DSE6		Discipline Specific Elective	3	0	0	3
DSE7		Discipline Specific Elective	3	0	0	3
DSE8		Discipline Specific Elective	3	0	0	3
		PRACTICALS				
SEC10	FT- 651	Seminar II	0	0	2	1
		General Proficiency	0	0	0	0
		PROJECTS				
	FT- 653	Dissertation-I	0	0	10	5
		Total				21

Discipline Specific Elective (DSE) 6 :

1. FT- 605 Technology of Frozen Foods
2. FT- 607 Advances in Dairy Engineering and Technology

Discipline Specific Elective (DSE) 7:

1. FT 609 Food Industry Waste Management
2. FT-611 Flavour Technology

Discipline Specific Elective (DSE) 8:

1. FT 613 Fermented Foods and Bioprocess Engg.
2. FT-615 IPR and Patenting in Food technology

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SEMESTER- X

	Subject Code	Courses	L	T	P	Credits
		MAJOR PROJECT				
	FT- 654	Research Project	0	0	0	25
	GP	General Proficiency	0	0	0	0
		Total				25

Total Credits = 240

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