

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade
CHOICE BASED CREDIT SYSTEM

Syllabus For

B.Sc. Part - I

Food Technology and Managemnt (Entire)

SEMESTER I AND II

(Syllabus to be implemented from June, 2019 onwards.)

❖ Structure of Program and List of Courses are as follows:

**(i) Structure of B. Sc. Food Technology and Management
(Entire) Programme Sem I & II**

Structure – I

SEMESTER – I (Duration – 6 Months)														
Sr. No.	Course (Subject) Title	TEACHING SCHEME						EXAMINATION SCHEME						
		THEORY			PRACTICAL			THEORY				PRACTICAL		
		Credits	No. of Lectures	Hours	Credits	No. of lectures	Hours	Hours	Max	Total Marks	Min	Hours	Max	Min
1	DSC-FTM-A1	2	5	4	2	4	3.2	2	50	100	35	PRACTICAL EXAMINATION IS ANNUAL		
2	DSC-FTM-A2	2						2	50					
3	DSC-FTM-A3	2	5	4	2	4	3.2	2	50	100	35			
4	DSC-FTM-A4	2						2	50					
5	DSC-FTM-A5	2	5	4	2	4	3.2	2	50	100	35			
6	DSC-FTMA6	2						2	50					
7	DSC-FTM-A7	2	5	4	2	4	3.2	2	50	100	35			
8	DSC-FTM-A8	2						2	50					
9	AECC-A	2	4	3.2	-----	-----	-----	2	50	50	18			
Total		18	24	19.2	8	16	12.8	-		450				
SEMESTER – II (Duration – 6 Months)														
1	DSC-FTM-B1	2	5	4	2	4	3.2	2	50	100	35	As per BOS Guide-lines		
2	DSC-FTM-B2	2						2	50					
3	DSC-FTM-B3	2	5	4	2	4	3.2	2	50	100	35			
4	DSC-FTM-B4	2						2	50					
5	DSC-FTM-B5	2	5	4	2	4	3.2	2	50	100	35			
6	DSC-FTM-B6	2						2	50					
7	DSC-FTM-B7	2	5	4	2	4	3.2	2	50	100	35			
8	DSC-FTM-B8	2						2	50					
9	AECC-B	2	4	3.2	-----	-----	-----	2	50	50	18			
Total		18	24	19.2	8	16	12.8	-		450				
Grand Total		36	48	38.4	16	32	25.6			900		200		
<ul style="list-style-type: none"> Student contact hours per week : 32 Hours (Min.) Theory and Practical Lectures : 48 Minutes Each DSC – Discipline Specific Core course: All papers are compulsory. AECC – Ability Enhancement Compulsory Course (A & B)- English Practical Examination will be conducted annually for 50 Marks per course (subject). <i>There shall be separate passing for theory and practical courses.</i> 						<ul style="list-style-type: none"> Total Marks for B.Sc.-I (Including English) : 1100 Total Credits for B.Sc.-I (Semester I & II) : 52 								
(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC) For Sem I: CCC – I : Democracy, Elections and Good Governance														
(B) Non-Credit Self Study Course : Skill Development Courses (SDC) For Sem II: SDC – I : Any one from following (i) to (v) i) Business Communication & Presentation ii) Event management iii) Personality Development, iv) Yoga & Physical Management v) Resume, Report & proposal writing														

**ii) Structure of B. Sc. Food Technology and Management(Entire)
Programme Sem III & IV**

Structure - II

S E M E S T E R – III (Duration – 6 Months)																					
Sr. No.	Course (Subject) Title	TEACHING SCHEME						EXAMINATION SCHEME													
		THEORY			PRACTICAL			THEORY				PRACTICAL									
		Credits	No. of Lectures	Hours	Credits	No. of lectures	Hours	Hours	Max	Total Marks	Min	Hours	Max	Min							
1	DSC-FTM-C1	2	3	2.4	4	8	6.4	2	50	100	35	PRACTICAL EXAMINATION IS ANNUAL									
2	DSC-FTM-C2	2	3	2.4				2	50												
3	DSC-FTM-C3	2	3	2.4				4	8	6.4	2				50	100	35				
4	DSC-FTM-C4	2	3	2.4							2				50						
5	DSC-FTM-C5	2	3	2.4				4	8	6.4	2				50	100	35				
6	DSC-FTM-C6	2	3	2.4							2				50						
7	AECC-C	4	4	3.2				---	---	---						---	---				
	TOTAL	16	22	17.6	12	24	19.2			300	---										
S E M E S T E R – IV (Duration – 6 Months)																					
1	DSC-FTM-D1	2	3	2.4	4	8	6.4	2	50	100	35				As per BOS Guide-lines		100	35			
2	DSC-FTM-D2	2	3	2.4				2	50												
3	DSC-FTM-D3	2	3	2.4				4	8	6.4	2								50	100	35
4	DSC-FTM-D4	2	3	2.4							2								50		
5	DSC-FTM-D5	2	3	2.4				4	8	6.4	2								50	100	35
6	DSC-FTM-D6	2	3	2.4							2	50									
7	AECC- C AECC- D	---	---	---				---	---	---	3	70 30	100	25 10	---	---	---				
	TOTAL	12	18	14.4	12	24	19.2			400	---										
		28	40	32	24	48	38.4			700	--	---	300								
• Student contact hours per week : 32 Hours (Min.)						• Total Marks for B.Sc.-II (Including EVS) : 1000															
• Theory and Practical Lectures : 48 Minutes Each						• Total Credits for B.Sc.-II (Semester III & IV) : 52															
• DSC : - Discipline Specific Core Course : All papers are compulsory.																					
• AECC - Ability Enhancement Compulsory Course (C) : Environmental Studies: EVS (Theory – 70 & Project – 30 Marks)																					
• Practical Examination will be conducted annually for 100 Marks per course (subject).																					
• <i>There shall be separate passing for theory and practical courses also for Environmental Studies.</i>																					

**(iii) Structure of B. Sc. Food Technology and Management(Entire)
Programme Sem V & VI**

Structure - III

SEMESTER – V (Duration – 6 Months)															
Sr. No.	Subject Title	TEACHING SCHEME						EXAMINATION SCHEME							
		THEORY			PRACTICAL			THEORY				PRACTICAL			
		Credits	No. of lectures	Hours	Credits	No. of lectures	Hours	Hours	Theory	Internal	Min Marks	Hours	Max Marks	Min Marks	
1	DSE-FTM-E1	2	3	2.4	2	5	4	2	40	10	14+4=18	PRACTICAL EXAMINATION IS ANNUAL			
2	DSE-FTM-E2	2	3	2.4	2	5	4	2	40	10	14+4=18				
3	DSE-FTM-E3	2	3	2.4	2	5	4	2	40	10	14+4=18				
4	DSE-FTM-E4	2	3	2.4	2	5	4	2	40	10	14+4=18				
5	AECC-E	2	4	3.2	---	---	---	2	40	10	14+4=18				
	TOTAL	10	16	12.8	8	20	16		200	50	---				
SEMESTER – VI (Duration – 6 Months)															
1	DSE-FTM-F1	2	3	2.4	2	5	4	2	40	10	14+4=18	As per BOS Guidelines	50	18	
2	DSE-FTM-F2	2	3	2.4	2	5	4	2	40	10	14+4=18		50	18	
3	DSE-FTM-F3	2	3	2.4	2	5	4	2	40	10	14+4=18		50	18	
4	DSE-FTM-F4	2	3	2.4	2	5	4	2	40	10	14+4=18		50	18	
5	AECC-F	2	4	3.2	---	---	---	2	40	10	14+4=18		---	---	
	TOTAL	10	16	12.8	8	20	16		200	50	---				
	GRAND TOTAL	20	32	25.6	16	40	32		400	100	--	---	200		
• Student contact hours per week : 32 Hours (Min)		•		• Total Marks for B.Sc.-III (Including English) : 700											
• Theory and Practical Lectures : 48 Min. Each		•		• Total Credits for B.Sc.-III (Semester V & VI) : 36											
• DSE- Discipline Specific Elective : All papers are compulsory.															
• AECC- Ability Enhancement Compulsory Course (E & F) : English															
• Practical Examination will be conducted annually for 200 Marks.															
• <i>There shall be separate passing for theory, internal and practical.</i>															
(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC)															
For Sem V: CCC – II : Constitution of India and Local Self Government															
(B) Non-Credit Self Study Course : Skill Development Courses (SDC)															
For Sem VI: SDC – II: Any one from following (vi) to (x)															
vi) Interview & Personal Presentation Skill, vii) Entrepreneurship Development Skill, viii) Travel & Tourism, ix) E-Banking & Financial Services, x) RTI & Human Right Education (HRE), IPR & Patents															

CBCS B. Sc. :Food technology and Management(Entire) : List of courses:

i) B. Sc FTM. Part 1 (Sem I & II),

Course code	Name of Course	Course code	Name of Course
Sem I		Sem II	
DSC FTM-A1	Food Science-I	DSC FTM-B1	Food Chemistry – I
DSC FTM-A2	Food Science-II	DSC FTM-B2	Food Chemistry – II
DSC FTM-A3	Food Microbiology -I	DSC FTM-B3	Principles of Food Preservation –I
DSC FTM-A4	Food Microbiology -II	DSC FTM-B4	Principles of Food Preservation – II
DSC FTM-A5	Dairy Technology –I	DSC FTM-B5	Human Nutrition-I
DSC FTM-A6	Dairy Technology –II	DSC FTM-B6	Human Nutrition-II
DSC FTM-A7	Human Physiology-I	DSC FTM-B7	Computer Basics and Applications –I
DSC FTM-A8	Human Physiology-II	DSC FTM-B8	Computer Basics and Applications –II
AECC – A	English – I	AECC – B	English – II

Practical

DSC FTM-P1	Lab Course I (Based on DSC FTM-A3 & DSC FTM-A4)	DSC FTM-P3	Lab Course III (Based on DSC FTM-B5 & DSC FTM-B6)
DSC FTM-P2	Lab Course II (Based on DSC FTM-A5 & DSC FTM-A6)	DSC FTM-P4	Lab Course IV (Based on DSC FTM-B7 & DSC FTM-B8)

DSC FTM: - Discipline Specific Core Course Food technology and
Management

AECC: - Ability Enhancement Compulsory Course: Compulsory English

ii) **B.Sc. FTM Part 2 (Sem III & IV)**

Course code	Name of Course	Course code	Name of Course
Sem III		Sem IV	
DSC FTM-C1	Grain Science and Technology - I	DSC FTM-D1	Processing and Preservation of Fruits and Vegetables-I
DSC FTM-C2	Grain Science and Technology - II	DSC FTM-D2	Processing and Preservation of Fruits and Vegetables-II
DSC FTM-C3	Post Harvest Technology –I	DSC FTM-D3	Food Biochemistry-I
DSC FTM-C4	Post Harvest Technology –II	DSC FTM-D4	Food Biochemistry-II
DSC FTM-C5	Industrial and Agri Business Management- I	DSC FTM-D5	Food Packaging -I
DSC FTM-C6	Industrial and Agri Business Management- II	DSC FTM-D6	Food Packaging -II
AECC – C	Environmental Studies (Theory)	AECC – D	Environmental Studies (Project)

AECC-C: - Ability Enhancement Compulsory Course: Environmental Studies

Practical

DSC FTM-P5	Lab Course V (Based on DSC FTM-C1 & DSC FTM-C2, DSC FTM-D5 & DSC FTM-D6)	DSC FTM-P7	Lab Course VII (Based on DSC FTM-D3 & DSC FTM-D4)
DSC FTM-P6	Lab Course VI (Based on DSC FTM-D1 & DSC FTM-D2, DSC FTM-C3 & DSC FTM-C4)		

iii) **B. Sc. FTM Part 3 (Sem V & VI)**

Discipline Specific Elective (DSE)

Course code	Name of Course	Course code	Name of Course
Sem V		Sem VI	
DSE FTM-E1	Animal Product Technology-I	DSEFT M-F1	Animal Product Technology-II
DSE FTM-E2	Bakery and Confectionery –I	DSE FTM-F2	Bakery and Confectionery –II
DSE FTM-E3	Food Quality Control, Safety and Waste Management-I	DSE FTM-F3	Food Quality Control, Safety and Waste Management-II
DSE FTM-E4	Beverage Technology-I	DSE FTM-F4	Beverage Technology-II
AECC – E	English – III	AECC – F	English – IV

Practical

DSE FTM-P8	Lab Course VIII (Based on DSE FTM-E2 & DSC FTM-F2)	DSE FTM-P10	Lab Course X (Based on DSE FTM-E4 & DSC FTM-F4)
DSE FTM-P9	Lab Course IX (Based on DSE FTM-E3 & DSC FTM-F3)	DSE FTM-P11	Project