Karmaveer Bhaurao Patil University, Satara
Faculty of Science and Technology

B. Sc. (FOOD TECHNOLOGY)
Programme and Credit Structure as per NEP 2020

{Ref. Government of Maharashtra letter no. □□□□□.□□□□/□□□.□.□□/□□□□-□□□ □□ □□ □□□□□□: □□ □□□□□ □□□□}

The degree shall be titled as 'Bachelor of Science [Food Technology] under the faculty of Science and Technology

B. Sc. Sem. I & II from Academic Year 2024-25
B. Sc. Sem. III & IV from Academic Year 2025-26
B. Sc. Sem. V & VI from Academic Year 2026-27
B. Sc. Sem. VII&VIII from Academic Year 2027-28

Programme Outcomes for B. Sc. (Food Technology)

PO. No.	**Programme Outcomes** **After completing B. Sc. (Food Technology) Programme the students will be able to…….**
PO-1	impart the knowledge of food technology is the basic objective of this course.
PO-2	develop a scientific attitude among the students and to make the students open minded, critical, and curious.
PO-3	develop skills in practical work, experiments, and laboratory materials.
PO-4	understand scientific terms, concepts, facts, phenomenon, and their relationships.
PO-5	make the students aware of food safety and environment.
PO-6	enable the students to acquire knowledge of food and related subjects to understand nutrients and its benefit to human beings.
PO-7	develop the ability for the application of acquired knowledge to improve agriculture and related fields to make themselves self-reliant
PO-8	impart the knowledge of food technology is the basic objective of the course.
PO-9	understand scientific terms, concepts, facts, phenomenon and their relationships.
PO-10	develop skill in practical work, experiments and laboratory materials.
PO-11	develop scientific attitude among the students and to make the students open minded, critical and curious so that they enter research field with a positive approach.
PO-12	make the students skilled to get employment in the food-based industries or to start their own food based entrepreneurial ventures.
PO-13	make the students aware of nutrition that improve health.
PO-14	enable the students to acquire knowledge of food and related subjects so as to apply them for the benefit of human beings.
PSO. NO	**Programme Specific Outcomes** **The student will be able to…**
PSO-1	Discuss and ask questions related to the different aspects of food technology .
PSO-2	Perform experiments and projects related to food technology
PSO-3	Critically analyze the interactions between raw food and processed food around them.
PSO-4	Apply the knowledge of food technology in finding sustainable solutions for the society as well as industry.
PSO-5	Apply the knowledge of food technology in becoming self- reliant either through entering into a job or initiating a food based entrepreneurial venture

PSO-6	Explain, describe and discuss the concepts of food science.
PSO-7	Perform and design experiments related to food manufacturing.
PSO-8	Decide and Undertake a project based on food product development
PSO-9	Attain skills needed in the plant based industries through an internship.
PSO-10	Improve the research based skills by entering into a research internship as well as in house project.
PSO-11	Present their research findings in research conglomerations like conferences and in research journals in the form of publications.
PSO-12	Critically analyze their role as an environment sustainability goals oriented citizen

Semester, Credit Framework, NSQF Level and Exit Points

Sr. No.	Semester	Year	Year	Credits	Level	Exit Points &Award
1	Sem. I & II	2024-25	1Year	44	4.5	UG Certificate in Accountancy
2	Sem. III & IV	2025-26	2Year	88	5.0	UG Diploma in Accountancy
3	Sem. V &VI	2026-27	3Year	132	5.5	B. Sc. in food technology (UG Three Year Degree)
4	Sem. VII & VIII	2027-28	4Year	176	6.0	B. Sc. in food technology [Honors/Research] (UG Four Year Degree)

Credit Distribution

Sr. No.	Course	3 Year Degree Programme			4 Year Honors Degree Programme			4 Year Honors with Research Degree Programme		
		Courses (3 Yr)	Credits (3 Yr)	%	Courses (4 Yr)	Credits (4 Yr)	%	Courses (4 Yr)	Credits (4 Yr)	%
1	Major	26	52	39.39	34	80	45.45	32	72	40.91
2	Elective	04	08	6.06	08	16	9.09	08	16	9.09
3	IKS	02	04	3.03	02	04	2.27	02	04	2.27
4	VSC	04	08	6.06	04	08	4.55	04	08	4.55
5	FP	01	02	1.52	01	02	1.14	01	02	1.14
6	OJT	01	04	3.03	02	08	4.55	01	04	2.27
7	RP	00	00	0.00	00	00	00	02	12	6.82
8	SEC	03	06	4.55	03	06	3.41	03	06	3.41
9	CEP	01	02	1.52	01	02	1.14	01	02	1.14
Total (Major) (A)		**42**	**86**	**65.15**	**55**	**126**	**71.59**	**54**	**126**	**71.59**
1	Minor & RM	12	24	18.18	13	28	15.91	13	28	15.91
Total (Minor) (B)		**12**	**24**	**18.18**	**12**	**28**	**15.91**	**13**	**28**	**15.91**
1	OE	04	08	6.06	04	08	4.55	04	08	4.55
2	AEC	04	08	6.06	04	08	4.55	04	08	4.55
3	VEC	02	04	3.03	02	04	2.27	02	04	2.27
4	CC	01	02	1.52	01	02	1.14	01	02	1.14
Total (C)		**11**	**22**	**16.67**	**11**	**22**	**12.50**	**11**	**22**	**12.50**
Grand Total (A+B+C)		**65**	**132**	**100**	**79**	**176**	**100**	**78**	**176**	**100**

Duration:

- The program shall be a full-time program.
- The duration of program shall be three years for Bachelor of Science and four years for Bachelor of Science with Honors or Bachelor of Science with Research.
- Every year students will have exist option with:
- (1^{st} Year: Certificate, 2^{nd} Year: Diploma, 3^{rd} Year: Degree, 4^{th} Year: Honors / Research)
- These students are allowed to re-enter the degree program within three years and complete the degree program within the stipulated maximum period of Seven Years.

Eligibility: 12th Pass with Science, or equivalent.

Medium of Instruction: The medium of instructions shall be in English.

Scheme of Examination & Standard of Passing (CCE and ESE):

- End Semester Exam (ESE): 30 Marks (Min 12 Marks for Passing)
- Continuous Comprehensive Evaluation (CCE): 20 Marks (Min 08 Marks for Passing)
- Total Marks = 50 Marks
- Minimum 40% Marks Required for Passing and there is separate head of Passing for End Semester Examination (ESE) and Continuous Comprehensive Evaluation (CCE).
- As per the decision of the concern Board of Studies.
- A candidate who acquire 32 credits or more during semester – I & II shall be admitted to B. Sc. II (appear for semester – III & IV examination).
- However the candidate shall not be admitted to B.Sc. III (Semester - V) unless he/she passed in all the subjects at B.Sc. I (Semester - I & Semester - II) and acquire 32 credits or more during semester – III & IV.
- However the candidate shall not be admitted to B. Sc. IV (Semester - VII) unless he/she passed in all the subjects at B. Sc. III (Semester – III to Semester - VI).
- However under the National Education Policy the rules extended by KBP University, time to time regarding ATKT will be applicable.

Eligibility of the Core Faculty:

- As per rules and regulations of Karmaveer Bhaurao Patil University, Satara and Govt. of Maharashtra.
- Eligibility for **Professor of Practice or Professional Trainer**:

  Any other eligibility as per the guidelines and regulations passed by concern board of studies, academic council of the autonomous college and rules & regulations of Karmaveer Bhaurao Patil University, Satara and Government of Maharashtra and UGC norms.

Karmaveer Bhaurao Patil University, Satara

Faculty of Science and Technology

B. Sc. (Food Technology) Part-I

Semester I				
Sr. No.	**Components**	**Paper Codes**	**Course**	**Credits**
1	Course-I	BFTT 111	Principles of Food Processing	06
		BFTT 112	Technology of Food Packaging	
		BFTP 113	Practical Based on BFTP 111 & BFTP 112	
2	Course-II	BFTT 114	Food Microbiology – I	06
		BFTT 115	Food Preservation–I	
		BFTP 116	Practical Based on BFTP 114 & BFTP 115	
3	Course-III	BFTT 117	Human Nutrition	06
		BFTT 118	Biochemistry	
		BFTP 119	Practical Based on BFTP 117 & BFTP 118	
4	OE	BFTT OE 1	Agriculture Economics P –I	02
5	IKS	BFTT IKS 1	Indian Knowledge System P-I	02
			Total	**22**
Semester II				
Sr. No.	**Components**	**Paper Codes**	**Course**	**Credits**
1	Course-I	BFTT 121	Fruit and Vegetable Processing Technology	06
		BFTT 122	Technology of Sea foods	
		BFTP 123	Practical Based on BFTP 121 & BFTP 122	
2	Course-II	BFTT 124	Food Microbiology – II	06
		BFTT 125	Food Preservation–II	
		BFTP 126	Practical Based on BFTP 124 & BFTP 125	
3	Course-III	BFTT 127	Food Laws and Regulation	06
		BFTT 128	Food Additives and toxicology	
		BFTP 129	Practical Based on BFTP 127 & BFTP 128	
4	OE	BFTT OE 2	Agriculture Risk Management P-II	02
5	VEC	BFTT VEC 1	Democracy, Good Governance and Constitution of India	02
			Total	**22**
EXIT OPTION: Award of UG Certificate in Major **with 44 credits** & an additional 4 credits core NSQF Course/Internship OR Continue with Major & Minor.				

B. Sc. (Food Technology) Part-II

Sr. No.	**Components**	**Paper Codes**	**Course**	**Credits**
1	Major	BFTT 131	Processing of Milk and Milk Product	06
		BFTT 132	Processing of Meat, Fish and Poultry	
		BFTP 133	Practical Based on BFTP 131 & BFTP 132	
2	Minor	BFTT 134	Fermentation Technology	06
		BFTT 135	Food Biotechnology	
		BFTP 136	Practical Based on BFTP 135 & BFTP 136	
3	OE	BFTT OE 3	Agriculture and Economics Development P-III	02
4	VSC	BFTT VSC 1	Analytical Techniques in Food Technology	02
5	SEC	BFTT SEC 1	Food Chemistry	02
6	AEC	BFTT AEC 1	English P-I	02

7	IKS	BFTT IKS 2	Indian Agriculture P-II	02
			Total	**22**
Sr. No.	**Components**		**Course**	**Credits**
1	Major	BFTT 141	Oil Seed and Fat Processing Technology	06
		BFTT 142	Processing of Cereal and Pulses	
		BFTT 143	Practical Based on BFTP 141 & BFTP 142	
2	Minor	BFTT 144	Food Safety and Plant Sanitation	06
		BFTT 145	Nutraceutical and Functional Food	
		BFTT 146	Practical Based on BFTP 144 & BFTP 145	
3	OE	BFTT OE 4	Farm Management P-IV	02
4	VSC	BFTT VSC 2	Human Physiology	02
5	SEC	BFTT SEC 2	Plantation Crops and Spices	02
6	AEC	BFTT AEC 2	English P-II	02
7	VEC	BFTT VEC 2	Environmental Studies	02
			Total	**22**

B. Sc. (Food Technology) Part-III

Sr. No.	**Components**	**Course**	**Credits**
1	Major	Confectionary Technology	02
2	Major	Bakery Technology	02
3	Major	Food Engineering-I	02
4	Electives I	Food Product Development and Computer Applications	02
5	Electives II	Food Plant Organization and Computer Applications	
6	Major Lab	Lab – V	02
7	Elective Lab	Lab – I	02
8	VSC	Numerical Skills	02
9	AEC	English P-III	02
10	OJT	On Job Training in Food Technology- I	04
11	CEP	Community Engagement Programme in Food Technology	02
		Total	**22**
Sr.	**Components**	**Course**	**Credits**
1	Major	Food Quality and Sensory Evaluation	02
2	Major	Snack Food Processing Technology	02
3	Major	Food Engineering-II	02
4	Electives I	Beverage Technology and Government Laws and Regulations	02
5	Electives II	Extrusion Technology and Government Laws and Regulations	
6	Major Lab	Lab – VI	02
7	Elective Lab	Lab – II	02
8	VSC	Advance Food Packaging Technology	02
9	SEC	FSSAI Food Manual for Proximate Analysis	02
10	FP	Project	02
11	CC	Co-curricular Course in Yoga and Diet	02
12	AEC	English P-IV	02
		Total	**22**

B. Sc. (Food Technology) Part-IV Honors Degree

Semester VII

Sr. No.	Components	Course	Credits
1	Major	Post-Harvest Technology of Horticulture Produce	04
2	Major	New Food Product Development	04
3	Major	Introduction to Paper and Paperboard, Plastics and Polymer	04
4	Electives I	Food Refrigeration and Cold Storage	02
5	Electives II	Marketing Management and International Trade	
6	Major Lab	Lab – VII	02
7	Elective Lab	Lab – III	02
8	Minor	Quality Evaluation of Processed Foods	04
		Total	**22**
Semester VIII			
Sr.	**Components**	**Course**	**Credits**
1	Major	Technology of Cereals, Legumes and Oil Seeds	04
2	Major	Food Plant Organization and Layout	04
3	Major	Packaging Laws and Regulation	04
4	Electives I	Instrumentation and Process Control	02
5	Electives II	Fluid Mechanics and Hydraulics	
6	Major Lab	Lab – VIII	02
7	Elective Lab	Lab – IV	02
8	OJT	On Job Training in Food Industries	04
		Total	**22**
Award of Four year UG Honors Degree in Major and Minor with 176 credits.			

B. Sc. (Food Technology) Part-IV Honors with Research Degree

Sr. No.	Components	Course	Credits
1	Major	Post-Harvest Technology of Horticulture Produce	04
2	Major	New Food Product Development	04
3	Electives I	Entrepreneurship in Food Processing	04
4	Electives II	Marketing Management and International Trade	
5	Major Lab	Lab – VII	02
6	Minor	Research Methodology	04
7	RP	Research Project in Food Technology I	04
		Total	**22**
Sr. No.	**Components**	**Course**	**Credits**
1	Major	Technology of Cereals, Legumes and Oil Seeds	04
2	Major	Food Plant Organization and Layout	04
3	Electives I	Instrumentation and Process Control	04
4	Electives II	Fluid Mechanics and Hydraulics	
5	Major Lab	Lab – VIII	02
6	RP	Research Project in Food Technology II	08
		Total	**22**

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BoS in Botany

Secretary
Academic Council

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