

Department of Food Technology
Guru Jambheshwar University of Science and Technology, Hisar, Haryana
B.Voc. (Food Processing and Engineering)

First Semester:

Paper Code	Subjects	Course Type	Teaching Scheme (hrs/week)			Total Credits	Marks Distribution	
			L	T	P		Internal	External
1 BVFPE 01	Essentials of Communication	GEC	4	0	0	4	30	70
1 BVFPE 02	Food Chemistry	GEC	4	0	0	4	30	70
1 BVFPE 03	Computer Fundamentals and its Applications	GEC	4	0	0	4	30	70
1 BVFPE 04	Grain Handling and Storage	SCC	4	0	0	4	30	70
1 BVFPE 05	Grain Handling and Storage Lab	SCC	0	0	4	2	30	70
1 BVFPE 06	Wheat Grain Structure, Quality and Milling	SCC	4	0	0	4	30	70
1 BVFPE 07	Wheat Grain Structure, Quality and Milling Lab	SCC	0	0	4	2	30	70
1 BVFPE 08	Grain & Grain Products Packaging and Labelling	SCC	4	0	0	4	30	70
1 BVFPE 09	Grain & Grain Products Packaging and Labelling Lab	SCC	0	0	4	2	30	70
Total			24	0	12	30		

Second Semester:

Paper Code	Subjects	Course Type	Teaching Scheme (hrs/week)			Total Credits	Marks Distribution	
			L	T	P		Internal	External
2 BVFPE 01	Communication and Writing Skills	GEC	4	0	0	4	30	70
2 BVFPE 02	Essentials of Nutrition and Health	GEC	4	0	0	4	30	70
2 BVFPE 03	Food Microbiology	GEC	4	0	0	4	30	70
2 BVFPE 04	Rice Grain Structure, Quality and Milling	SCC	4	0	0	4	30	70
2 BVFPE 05	Rice Grain Structure, Quality and Milling Lab	SCC	0	0	4	2	30	70
2 BVFPE 06	Pulses and Oilseeds Structure, Quality and Milling	SCC	4	0	0	4	30	70
2 BVFPE 07	Pulses and Oilseeds Structure, Quality and Milling Lab	SCC	0	0	4	2	30	70
2 BVFPE 08	Minor Grains Structure, Quality and Milling	SCC	4	0	0	4	30	70
2 BVFPE 09	Minor Grains Structure, Quality and Milling Lab	SCC	0	0	4	2	30	70
Total			24	0	12	30		

Third Semester:

Paper Code	Subjects	Course Type	Teaching Scheme (hrs/week)			Total Credits	Marks Distribution	
			L	T	P		Internal	External
3 BVFPE 01	Food Business Management	GEC	4	0	0	4	30	70
3 BVFPE 02	Food Additives	GEC	4	0	0	4	30	70
3 BVFPE 03	Yoga and Stress Management	GEC	4	0	0	4	30	70
3 BVFPE 04	Functionality of Wheat Flour Components and Bakery Ingredients	SCC	4	0	0	4	30	70
3 BVFPE 05	Functionality of Wheat Flour Components and Bakery Ingredients Lab	SCC	0	0	4	2	30	70
3 BVFPE 06	Rheology and Chemistry of Dough	SCC	4	0	0	4	30	70
3 BVFPE 07	Soft Wheat Products and Processes	SCC	4	0	0	2	30	70
3 BVFPE 08	Soft Wheat Products and Processes Lab	SCC	0	0	4	4	30	70
3 BVFPE 09	Industrial Training Report and Seminar	SCC	0	0	2	2	100	----
	Total		24	0	10	30		

Fourth Semester:

Paper Code	Subjects	Course Type	Teaching Scheme (hrs/week)			Total Credits	Marks Distribution	
			L	T	P		Internal	External
4 BVFPE 01	Food Safety and Total Quality Management	GEC	4	0	0	4	30	70
4 BVFPE 02	Basics of Thermodynamics	GEC	4	0	0	4	30	70
4 BVFPE 03	Environmental Science	GEC	4	0	0	4	30	70
4 BVFPE 04	Bread Products and Processes	SCC	4	0	0	4	30	70
4 BVFPE 05	Bread Products and Processes Lab	SCC	0	0	4	2	30	70
4 BVFPE 06	Technology of Confectionery Products	SCC	4	0	0	4	30	70
4 BVFPE 07	Technology of Confectionery Products Lab	SCC	0	0	4	2	30	70
4 BVFPE 08	Packaging of Bakery Products	SCC	2	0	0	2	30	70
4 BVFPE 09	Packaging of Bakery Products Lab	SCC	0	0	4	2	30	70
4 BVFPE 10	Snack Products Technology	SCC	2	0	0	2	30	70
	Total		24	0	12	30		

Fifth Semester:

Paper Code	Subjects	Course Type	Teaching Scheme (hrs/week)			Total Credits	Marks Distribution	
			L	T	P		Internal	External
5 BVFPE 01	New Product Design and Development	GEC	4	0	0	4	30	70
5 BVFPE 02	Entrepreneurship Skills Development	GEC	4	0	0	4	30	70
5 BVFPE 03	Engineering Properties of Food	GEC	4	0	0	4	30	70
5 BVFPE 04	Principles of Processing and Preservation	SCC	4	0	0	4	30	70
5 BVFPE 05	Principles of Processing and Preservation Lab	SCC	0	0	4	2	30	70
5 BVFPE 06	Post-Harvest Handling and Storage of Fruits and Vegetables	SCC	4	0	0	4	30	70
5 BVFPE 07	Post-Harvest Handling and Storage of Fruits and Vegetables Lab	SCC	0	0	4	2	30	70
5 BVFPE 08	Unit Operations in Food Processing	SCC	4	0	0	4	30	70
5 BVFPE 09	Industrial Training Report and Seminar	SCC	0	0	2	2	100	----
	Total		24	0	10	30		

Sixth Semester:

Paper Code	Subjects	Course Type	Teaching Scheme (hrs/week)			Total Credits	Marks Distribution	
			L	T	P		Internal	External
6 BVFPE 01	Bioprocess Engineering	GEC	4	0	0	4	30	70
6 BVFPE 02	Food Logistics and Supply Chain Management	GEC	4	0	0	4	30	70
6 BVFPE 03	Waste Management in Food Industry	GEC	4	0	0	4	30	70
6 BVFPE 04	Processing and Value Addition of Fruits and Vegetables	SCC	4	0	0	4	30	70
6 BVFPE 05	Processing and Value Addition of Fruits and Vegetable Products Lab	SCC	0	0	4	2	30	70
6 BVFPE 06	Major Project (Industrial/Institutional)	SCC	0	0	24	12	----	100
	Total		16	0	28	30		

Important Notes:

1. Bachelor of Vocation (B.Voc.) in Food Processing and Engineering is introduced with multiple exits as Certificate/Diploma /Advanced Diploma/Degree.
2. The students shall be given option to exit the programme at the below mentioned stages with cumulative credits awarded to the learners in B.Voc. programme.

NSQF Level	Skill Component Credits	General Education Credits	Total Credits for Award	Normal Duration	Exit Points / Awards
4	18	12	30	One semester	Certificate
5	36	24	60	Two semester	Diploma
6	72	48	120	Four semester	Advanced Diploma
7	108	72	180	Six semester	B.Voc. Degree

3. The transcript/award shall specify within parenthesis as under:
 - B. Voc. (Food Processing and Engineering)
 - Advanced Diploma (Food Processing and Engineering) with specialization in milling and baking
 - Diploma (Food Processing and Engineering) with specialization in milling
 - Certificate (Food Processing and Engineering)
4. One laboratory hour per week per semester will be assigned half credit.
5. After completion of 1st and 2nd year of academic programme the students will be required to undertake summer training/ internship comprising 4-6 weeks in industry /research institute/organization and shall submit a training report for which seminar presentation and viva-voce examination will be held in the beginning of the 3rd and 5th semester respectively by a 3-member committee constituted by the chairperson including supervisor.
6. The students are required to undertake a major Project (6BVFPE06) of 12 credits during 6th semester on a topic approved by the supervisor and Departmental Research Committee (DRC). The student is required to prepare his/her research project synopsis and should make a presentation to the DRC before the commencement of the final examination of 5th Semester. The student shall submit a report on the outcomes of the research project which will be evaluated by a 3-member committee comprising an external expert, supervisor and chairperson of the department.
7. The existing ordinance of the university will be applicable for this programme.