

Department of Food Technology
Guru Jambheshwar University of Science and Technology, Hisar, Haryana
CBCS Scheme and Syllabus Effective from 2018 onwards
M.Tech. (Food Technology)

Program Core	Program Elective	Open Elective	Research Project	Audit Course	Research Methodology and IPR	Mini project	Total Credit
16	19	3	26	NC	2	2	68

Semester I

Sr. No.	Course code	Course Nomenclature	Course Type	Teaching Scheme (hrs/weeks)			Credit	Marks
				L	T	P		
1	1MFT01	Advances in Food Engineering	Program Core I	3	0	0	3	100
2	1MFT02	Advances in Food Analysis	Program Core II	3	0	0	3	100
3	1MFT03	Elective I	Program Elective I	3	0	0	3	100
4	1MFT04	Elective II	Program Elective II	3	0	0	3	100
5	1MFT05	Program Core Lab I	Lab I	0	0	4	2	100
6	1MFT06	Program Elective Lab II	Lab II	0	0	4	2	100
7	1MFT07	Research Methodology and IPR		2	0	0	2	100
8	Audit Course	One from the list	Audit Course I	2	0	0	NC	100
Total credits				16	0	8	18	

Semester II

Sr. No.	Course code	Course Nomenclature	Course Type	Teaching Scheme (hrs/weeks)			Credit	Marks
				L	T	P		
9	2MFT11	Advances in Post-harvest Technology of Fruits and Vegetable	Program Core III	3	0	0	3	100
10	2MFT12	Advances in Cereal Science and Technology	Program Core IV	3	0	0	3	100
11	2MFT13	Program Elective III	Program Elective III	3	0	0	3	100
12	2MFT14	Program Elective IV	Program Elective IV	3	0	0	3	100
13	2MFT15	Program Core Lab III	Lab III	0	0	4	2	100

14	2MFT16	Program Elective Lab IV	Lab IV	0	0	4	2	100
15	2MFT18	Mini Project		0	0	4	2	100
16	Audit Course	One from the list	Audit Course II	2	0	0	NC	100
			Total Credits	14	0	12	18	

Semester III

Sr. No.	Course code	Course Nomenclature	Course Type	Teaching Scheme (hrs/weeks)			Credit	Marks
				L	T	P		
17	3MFT21	Program Elective V	Program Elective V	3	0	0	3	100
18	3MFT-801A	Dissertation Phase-I	Dissertation	0	0	20	10	100
19	Open Elective	One from the list	Open Elective	3	0	0	3	100
			Total Credits	6	0	20	16	

Semester IV

Sr. No.	Course code	Course Nomenclature	Course Type	Teaching Scheme (hrs/weeks)			Credit	Marks
				L	T	P		
20	4MFT-801B	Dissertation Phase-II/Thesis	Dissertation/Thesis	0	0	32	16	100
			Total Credits	0	0	32	16	

Total Credits

68

List of Program Elective:

Program Elective-I

- 1MFT03 (i) Food Safety and Quality Assurance
(ii) Food Additives, Contaminants and Toxicology

Program Elective-II

- 1MFT04 (i) Novel Food Packaging
(ii) Technology of Frozen Foods

Program Elective-III

- 2MFT13 (i) Advances in Dairy Technology
(ii) Beverage Technology

Program Elective-IV

- 2MFT14 (i) Advances in Meat, Fish, Poultry and Egg Processing
(ii) Snack Food Technology

Program Elective-V

- 3MFT 21 (i) Bioprocess engineering
(ii) Nutraceuticals & Functional foods

Important Notes:

- The credit requirement for the M. Tech (Food Technology) degree is 68credits inclusive of the 19 elective course credits.
- Each theory paper examination will be of 3 hours duration and practical examination will be of 4 hours duration.

3. The students shall be encouraged to undergo industrial/institute/organization training during semester breaks.
4. A student is required to undertake a Dissertation/Thesis of 26 credits on a topic approved by the supervisor and the Departmental Research Committee (DRC). The student is required to prepare his/her research project synopsis and should make a presentation to the DRC after the commencement of the final examination of second semester.
5. The research project shall be evaluated by the internal & external examiner at the end of the Semester IV.
6. Audit Course (Non Credit, 2+0+0) will be offered in semester I & II. Every student has to opt for one course in each semester as per the list. It is mandatory to qualify in this course.
7. Student has to opt for any one open elective course as per the list attached other than that offered by one's own department.
8. A Supervisor will be allotted by the Chairperson for every student in the beginning of first semester.

Program outcome:

1. Ability to apply principles of food engineering in industry.
2. Understand, identify and analyze a problem related to food industry and ability to find an appropriate solution for the same.
3. Design, implement and evaluate a research based project to meet demands of the society.
4. Use appropriate techniques, skills, and modern tools in the food industry and in academic profession.

Audit Courses/Open Electives for M.Tech. (2018 batch onwards)

List of Audit Courses 1 (1st Semester-Non Credit):

Sr. No.	Course	Code	To be Taught by Department	Time table schedule
1	English for Research Paper Writing	AC01	CMT	1 st Lecture Thursday & Friday
2	Disaster Management	AC02	ESE (Env. Sc. and Engg.)	
3	Value Education	AC04	Religious Studies	
4	Stress Management by Yoga	AC07	Physiotherapy	

List of Audit Courses 2 (2nd Semester-Non Credit):

Sr. No.	Course	Code	To be Taught by Department	Time table schedule
1	Sanskrit for Technical Knowledge	AC03	Religious Studies	1 st Lecture Thursday & Friday
2	Constitution of India	AC05	Faculty of Law	
3	Pedagogy Studies	AC06	HRDC	
4	Personality Development through Life Enlightenment Skills	AC08	Applied Psychology	

*List of Open Electives (3rd Semester-3 Credits):

Sr. No.	Course	Code	To be Taught by Department	Time table schedule
1	Business Analytics	3OE01	MBA/HSB	
2	Industrial Safety	3OE02	Mechanical Engineering	
3	Operations Research	3OE03	MBA/HSB	
4	Cost Management of Engineering Projects	3OE04	MBA/HSB	
5	Composite Materials	3OE05	Mechanical Engineering	
6	Waste to Energy	3OE06	ESE (Env. Sc. and Engg.)	
7	Advancements in Communication System	3OE07	ECE	

8	Introduction to Soft Computing Techniques	3OE08	CSE	1 st Lecture Wednesday, Thursday & Friday
9	Advanced Printing Technology	3OE09	Printing Technology	
10	Computer Aided Design & Manufacturing	3OE10	Mechanical Engineering	
11	Food Safety and Quality Assurance	3OE11	Food Technology	
12	Basic Nanotechnology	3OE12	Bio and Nano Technology	
13	MEMS & NEMS – Sensors & Devices	3OE13	Bio and Nano Technology	

***Note:** Student has to choose any one Open Elective out of above list other than offered by his/her own department.