

Regulation - R24

Curriculum Structure & Syllabus

for

Master of Technology (M.Tech.)

in

FOOD TECHNOLOGY

(Effective from 2024-25 admission batch)



Issued by

**GURU NANAK INSTITUTE OF TECHNOLOGY
(AUTONOMOUS)**

Panihati, Kolkata, West Bengal 700114

M. Tech. in Food Technology**PG-Syllabus, Guru Nanak Institute of Technology, Panihati, Kolkata, West Bengal****CURRICULUM and SYLLABUS (2024 Regulation)****SEMESTER I**

SL No.	Core/ Elective	Code	Subject Name	Contact Hours/Week				Credit
				L	T	P	Total	
THEORY								
1	PC1	MFT 101	Applied Statistics for Food Technology	3	0	0	3	3
2	PC2	MFT 102	Advanced Microbial Technology	4	0	0	4	4
3	PE1	MFT 103	Program Specific Elective-I A. Advanced Fruit and Vegetable Processing Technology B. Lipid Science and Technology C. Advanced Baking, Confectionery and Extrusion Technology	3	0	0	3	3
4	PE2	MFT 104	Program Specific Elective-II A. Advanced Food Technology and Nutrition B. Food Additives, Functional Foods and Nutraceuticals C. Food Rheology	3	0	0	3	3
5	MLC1	MLC 101	Research Methodology and IPR	2	0	0	2	2
PRACTICAL								
6	LAB1	MFT 191	Advanced Microbial Technology Laboratory	0	0	3	3	1.5
7	LAB2	MFT1 92	Advanced Food Processing Laboratory	0	0	3	3	1.5
SESSIONAL								
8	Aud-I	MFT1 81	Audit Course-I A. Constitution of India B. Personality Development C. Stress Management by Yoga	2	0	0	0	0
Total Credit								18

**MLC – Mandatory Learning Course

SEMESTER II

SL No.	Core/ Elective	Code	Subject Name	Contact Hours/Week				Credit
				L	T	P	Total	
THEORY								
1	PC1	MFT 201	Food Safety and Quality Control	4	0	0	4	4
2	PC2	MFT 202	Food Packaging and Storage Engineering	3	1	0	4	4
3	PE3	MFT 203	Program Specific Elective-III A. Transport Phenomena in Food Processing B. Modern Separation and Purification Process C. Heat and Mass Transfer Operations in Food Processing	3	0	0	3	3
4	PE4	MFT 204	Program Specific Elective-IV A. Advanced Enzyme Engineering and Technology B. Advance Protein Technology C. Advanced Biochemical Engineering	3	0	0	3	3
5	PE5	MFT 205	Program Specific Elective-V A. Advanced Dairy Technology B. Advanced Meat Processing Technology C. Novel Technologies in Food Processing	3	0	0	3	3
PRACTICAL								
6	Mini project	MFT 281	Mini Project and Seminar I	0	0	4	4	2
7	LAB1	MFT 291	Innovative Food Product Development Lab	0	0	3	3	1.5
8	LAB2	MFT 292	Advanced Food Analysis and Quality Assessment Lab	0	0	3	3	1.5
SESSIONAL								
9	Aud-II	MFT2 82	Audit Course-II A. Pedagogy Studies B. English for Research Paper Writing C. Disaster Management	2	0	0	0	0
Total Credit								22

SEMESTER III:

SL No.	Core/ Elective	Code	Subject Name	Contact Hours/Week				Credit
				L	T	P	Total	
THEORY								
1	PE6	MFT 301	Program specific elective-VI A. Food Supply Chain Management B. Advanced Refrigeration and Cold Chain Management C. Food Process Plant Layout and Design	3	0	0	3	3
2	OE	MFT 302	Open elective A. Internet of Things in Food and Agriculture B. Design and Analysis of Experiments C. Operational Research	3	0	0	3	3
3	PC	MFT 303	Industrial Waste Management	3	1	0	4	4
PRACTICAL								
4	Major Project	MFT 381	DISSERTATION (PART-1)	0	0	12	12	6
Total Credit								16

SEMESTER IV:

SL No.	Core/Elective	Code	Subject Name	Contact Hours/Week				Credit points	
				L	T	P	Total		
PRACTICAL									
1	Major Project	MFT 481	DISSERTATION (COMPLETION)	0	0	24	24	12	
Total Credit								24	12

TOTAL CREDIT: 68