

ACADEMIC CURRICULA

POST GRADUATE DEGREE PROGRAMMES

Master of Technology

(Choice Based Flexible Credit System)

Regulations 2021

Volume – 21 Curriculum



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

Kattankulathur, Chengalpattu District 603203,

Tamil Nadu, India

36 M.Tech in Food Safety and Quality Management

36. (a) Department Vision Statement

Stmnt - 1	<i>To enrich knowledge in emerging technologies in food and nutritional sector.</i>
Stmnt - 2	<i>To create professionally qualified technocrats in food technology sector</i>
Stmnt - 3	<i>To motivate students to become food entrepreneurs with technological skills</i>

36. (b) Department Mission Statement

Stmnt - 1	<i>To enrich knowledge in advance sectors of food, nutritional and food processing operations</i>
Stmnt - 2	<i>To focus on thrust areas of research in food and nutritional biotechnology.</i>
Stmnt - 3	<i>To adopt and apply high standards of technology for developing innovative food products and processes.</i>
Stmnt - 4	<i>To enhance professional ethics and moral in developing novel products.</i>
Stmnt - 5	<i>To create employability skills to meet the upcoming food technology sector.</i>

36. (c) Program Education Objectives (PEO)

PEO - 1	<i>To educate and enrich knowledge on process operation involved in food manufacturing.</i>
PEO - 2	<i>To provide opportunity to study job oriented courses like ISO 22000 (FSMS). HACCP, FoSTAC courses during their course of study.</i>
PEO - 3	<i>To study latest developments in export and import policies and implementation in various countries.</i>
PEO - 4	<i>To motive the students to carry out research studies in advanced sectors in food safety and quality.</i>
PEO - 5	<i>To create knowledge and skill set to become food entrepreneur / food safety professional / technocrats.</i>

36. (d) Consistency of PEO's with Mission of the Department

	Mission Stmnt. - 1	Mission Stmnt. - 2	Mission Stmnt. - 3	Mission Stmnt. - 4	Mission Stmnt. - 5
PEO - 1	3	3	3	1	3
PEO - 2	3	2	2	2	3
PEO - 3	3	3	3	3	3
PEO - 4	2	3	3	2	3
PEO - 5	3	1	2	3	2

36. (e) PO – Program Outcomes

PO - 1	<i>An ability to independently carry out research /investigation and development work to solve practical problems.</i>
PO - 2	<i>An ability to write and present a substantial technical report/document.</i>
PO - 3	<i>Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.</i>

36. (f) Consistency of PEO's with Program Outcomes (PO)

	Program Outcomes (PO)		
	1	2	3
PEO - 1			
PEO - 2			
PEO - 3			
PEO - 4			
PEO - 5			

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation

Professional Core Courses (C)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21FPC511T	Food Toxicology	3	0	0	3	
21FPC512J	Food Processing and Preservation Techniques	3	0	2	4	
21FPC513J	Advanced Food Microbiology	3	0	2	4	
21FPC514J	Food Laws and Regulations	3	0	2	4	
21FPC515J ²	Food Safety and Quality Auditing	3	0	2	4	
21IPC501J ²	Research Methodology	2	1	2	4	
21FPC601T ¹	Case Studies	3	0	0	3	
Total Credits					26	

Professional Elective Courses (E) (Any 7 Courses)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21FPE551T	Advanced Food Chemistry	3	0	0	3	
21FPE552T	Food Additives and Ingredients	3	0	0	3	
21FPE553T	Instrumentation and Data Acquisition for Food Industries	3	0	0	3	
21FPE554T	Hygiene, Public Health and Industry Safety	3	0	0	3	
21FPE555T ³	Food Safety Systems in Dairy Industries	3	0	0	3	
21FPE556T	Food Safety Systems in Fruits and Vegetables	3	0	0	3	
21FPE557T	Food Processing Plant Design	3	0	0	3	
21FPE558T	Sensors for Food safety and Quality	3	0	0	3	
21FPE651T	Food Safety and Quality Assurance for Meat, Poultry and Sea food Industries	3	0	0	3	
21FPE652T	Food Safety and Quality Assurance for Bakery and Confectionery Industries	3	0	0	3	
21FPE653T	Food Safety Systems in Beverage	3	0	0	3	
21FPE654T	Food Safety and Quality Assurance for Nutraceutical and Functional Food products	3	0	0	3	
21FPE600T ¹	Journal Publication	0	0	0	0	
21FPE655T ³	AI and ML based Food Quality Monitoring System	3	0	0	3	
21FPE656T	Logistics and Supply Chain Management	3	0	0	3	
Total Credits					21	

Project Work, Internship In Industry / Higher Technical Institutions (P)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21FPP501L	Specialization Project	0	0	40	20	
(OR)						
21FPP502L	Specialization Project	0	0	30	15	
21FPP503L	Domain Internship	0	0	10	5	
Total Credits					20	

100% assessment by the Department (1)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21FPC601T ¹	Case Studies	3	0	0	3	
21FPE600T ¹	Journal Publication	0	0	0	3	

Open Elective Courses (O) (Any 1 Course)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21FPO503T	Baking Technology	3	0	0	3	
Total Credits					3	

Course Delivery by online mode (3)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21FPE555T ³	Food Safety Systems in Dairy Industries	3	0	0	3	
21FPE655T ³	AI and ML based Food Quality Monitoring System	3	0	0	3	

Assessment by Open Book Examination (2)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21FPC515J ²	Food Safety and Quality Auditing	3	0	2	4	
21IPC501J ²	Research Methodology	2	1	2	4	

¹ 100% assessment by the Department
² Assessment by Open Book Examination
³ Course Delivery through online mode

36. (h) Implementation Plan: M.Tech Food Safety and Quality Management

Semester - I						
Code	Course Title	Hours/ Week				
		L	T	P	C	
21FPC511T	Food Toxicology	3	0	0	3	
21FPC512J	Food Processing and Preservation Techniques	3	0	2	4	
21FPC513J	Advanced Food Microbiology	3	0	2	4	
21IPC501J ²	Research Methodology	2	1	2	4	
21FPE551T	Advanced Food Chemistry	3	0	0		3
21FPE552T	Food Additives and Ingredients	3	0	0		
Total Credits						18

Students must register either 21FPP501L or 21FPP502L and 21FPP503L both in fourth semester

36. (i) Program Articulation Matrix: M.Tech Food Safety and Quality Management

Course Code	Course Name	Programme Outcomes		
		1	2	3
21FPC511T	Food Toxicology			
21FPC512J	Food Processing and Preservation Techniques			
21FPC513J	Advanced Food Microbiology			
21FPC514J	Food Laws and Regulations			
21FPC515J	Food Safety and Quality Auditing			
21IPC501J	Research Methodology	3	2.6	
21FPC601T	Case Studies			
21FPE551T	Advanced Food Chemistry			
21FPE552T	Food Additives and Ingredients			
21FPE553T	Instrumentation and Data Acquisition for Food Industries			
21FPE554T	Hygiene, Public Health and Industry Safety			
21FPE555T	Food Safety Systems in Dairy Industries			
21FPE556T	Food Safety Systems in Fruits and vegetables			
21FPE557T	Food Processing Plant Design			
21FPE558T	Sensors for Food safety and Quality			
21FPE651T	Food Safety and Quality Assurance for Meat, Poultry and Sea food Industries			
21FPE652T	Food Safety and Quality Assurance for Bakery and Confectionery Industries			
21FPE653T	Food Safety Systems in beverage			
21FPE654T	Food Safety and Quality Assurance for Nutraceutical and Functional Food products			
21FPE600T	Journal Publication			
21FPE655T	AI and ML based Food Quality monitoring system			
21FPE656T	Logistics and Supply Chain Management			
	Open Elective			
21FPP501L	Specialization Project			
21FPP502L	Specialization Project			
21FPP503L	Domain Internship			
Program Average				

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation



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