

EXAMINATION SCHEME & SYLLABI

[Choice Based Credit System (CBCS)]

OF

M.Sc. FOOD TECHNOLOGY (2 Year Program)

(w.e.f. Academic Session 2015-16)



**DEPARTMENT OF FOOD TECHNOLOGY
MAHARSHI DAYANAND UNIVERSITY
ROHTAK-124001, INDIA**

(NAAC Accredited 'A' Grade State University established under Haryana Act No. XXV of 1975)

Web site: <http://www.mdurohtak.ac.in>

Credit Matrix for M.Sc. Food Technology Program (w.e.f. session 2015-16)

SEMESTER	CORE PAPER	SOFT CORE ELECTIVE-(DISCIPLINE CENTRIC)	FOUNDATION COURSE	OPEN ELECTIVE (INTERDISCIPLINARY)	DISSERTATION	INDUSTRIAL TRAINING	TOTAL
I	30	-	-	-	-	-	30
II	18	06	02	02	-	-	28
III	24	06	-	-	-	02	32
IV	08	-	-	-	12	-	20
TOTAL	80	12	02	02	12	02	110

REQUIRED CREDITS FOR THE COURSE

CORE PAPER=80

SOFT CORE=12

OPEN ELECTIVE=02

FOUNDATION COURSE=02

DISSERTATION=12

INDUSTRIAL TRAINING=02

TOTAL=110

SCHEME OF EXAMINATION

M.SC. FOOD TECHNOLOGY (CHOICE BASED CREDIT SYSTEM)

(W.E.F. ACADEMIC SESSION 2015-16)

SEMESTER –I						
Paper No.	Nomenclature of Paper			Max. Marks	Internal Assessment	Total Marks
		Credits	Hrs.			
CORE PAPER						
FT-101	Food Chemistry	4	4	80	20	100
FT-102	Principles of Food Engineering	4	4	80	20	100
FT-103	Basic Principles of Food Processing and Preservation	4	4	80	20	100
FT-104	Food Microbiology	4	4	80	20	100
FT-105	Food Analysis & Instrumentation	4	4	80	20	100
FT-106	Lab course-I	10	20	-	-	250

Total Credits=30

Total Marks=750

SEMESTER –II						
Paper No.	Nomenclature of Paper			Max. Marks	Internal Assessment	Total Marks
		Credits	Hrs.			
CORE PAPER						
FT-201	Technology of Cereals	4	4	80	20	100
FT-202	Technology of Fruits and	4	4	80	20	100

	Vegetables					
FT-203	Unit Operations in Food Engineering	4	4	80	20	100
FT-204	Lab course-II	6	12	-	-	150
SOFT CORE (DISCIPLINE ELECTIVE PAPER)						
FT-205	Post Harvest Technology of Plantation Crops	4	4	80	20	100
FT-206	Technology of Legumes and Oilseeds	4	4	80	20	100
FT-207	Technology of Meat, Poultry and Fish Products	4	4	80	20	100
FT-208	Lab course-III (for respective elective paper)	2	4	-	-	50
OPEN ELECTIVE (INTERDISCIPLINARY) *						
FT-209	Food Adulteration	2	2	40	10	50
FOUNDATION COURSE						
FT-210	Computer Applications and Statistical Methods	2	2	40	10	50

* The students will have to opt any of the following open elective paper floated by various departments of faculty of life sciences:-

Sr. No.	Name of the Department	Open elective paper offered
1	Centre for Biotechnology	Principles and Applications of Biotechnology
		Principles and Applications of Agricultural Biotechnology
2	Centre for Medical Biotech	Principles of Medical Biotechnology
3	Centre for Bio-informatics	Introduction to Bioinformatics
4	Centre for Microbiology	Microbial World: Diversity & Applications
		Microbial Technology for Entrepreneurship
5	Department of Genetics	Genetics & Society
		Basics in Forensic Science
6	Department of Biochemistry	Basic Biochemistry
7	Department of Zoology	Applied Zoology
8	Department of Botany	Plant Resource Utilization
9	Department of Environmental Sciences	Environment Issues & Disaster Management

Total Credits=28

Total Marks=700

SEMESTER –III						
Paper No.	Nomenclature of Paper			Max. Marks	Internal Assessment	Total Marks
		Credits	Hrs.			
CORE PAPER						
FT-301	Technology of Milk and Milk products	4	4	80	20	100
FT-302	Food Packaging	4	4	80	20	100
FT-303	Food Safety and Quality control	4	4	80	20	100
FT-304	Technology of Bakery and	4	4	80	20	100

	Confectionary Products					
FT-305	Lab course-IV	8	16	-	-	200
SOFT CORE (DISCIPLINE ELECTIVE PAPER)						
FT-306	Enzymes and Fermentation Technology	4	4	80	20	100
FT-307	Food Biotechnology	4	4	80	20	100
FT-308	Food additives	4	4	80	20	100
FT-309	Lab course-V (for respective elective paper)	2	4	-	-	50
FT-310**	Industrial Training	2	-	50	-	50

**** The students will be required to undertake an industrial training comprising of 3-4 weeks in some industry/organization during the summer break after 2nd semester exams. The students will have to submit the training report for which the viva-voce examination will be held by the external examiner in the department.**

Total credits =32

Total marks =800

SEMESTER –IV						
Paper No.	Nomenclature of Paper			Max. Marks	Internal Assessment	Total Marks
		Credits	Hrs.			
CORE PAPER						
FT-401	Advances in Food Processing and Preservation	4	4	80	20	100
FT-402	Food Laws, Regulations and Standards	4	4	80	20	100
FT-403	Dissertation/Project Work	12	24	-	-	300

Total Credits=20

Total Marks=500

Grand Total Credits=110

Grand Total Marks=2750

NOTE

1. For all lecture courses, one credit per lecture/week/semester will generally be adopted.
2. Each theory course will be of 4 hours and practical will be of 6 hours duration per week.
3. Each theory paper examination will be of 3 hours duration and practical examination will be of 4 hours duration.
4. The dissertation is to be innovative work based on small piece of research work allotted in 3rd semester. The allotment/distribution of students is to be done at department level. Scheme of chapters of dissertation may be as follows-

Acknowledgement

Certificate by Supervisor

- (i) Introduction with objectives
- (ii) Review of literature in brief
- (iii) Materials & methods
- (iv) Results
- (v) Discussion
- (vi) Summary

Pattern of references/typing/figures will be same as in Ph.D. thesis. Last date of submission will be 30th June without late fee. The evaluation of dissertation will be done by external examiner from a panel approved by PGBOS and an internal examiner. The written part of dissertation report shall account for 250 of marks and the viva-voce will be conducted by a duly constituted board of examiners for the remaining 50 marks.

6. The internal assessment criteria will be as given written test will be as given under

Written test = 10 marks

Assignments/presentations = 05 marks

Attendance = 05 marks

(Less than 65% =0 marks, 65-70% =2 marks, 71-75% =3 marks, 76-80% = 4 marks, above 80% = 5 marks)

7. The workload for dissertation work will be calculated as 1h/student/week.