



UNIVERSITY OF JAMMU

(NAAC ACCREDITED 'A' GRADE' UNIVERSITY)
Baba Sahib Ambedkar Road, Jammu-180006 (J&K)

Academic Section

Email: academicsectionju14@gmail.com

NOTIFICATION **(23/May/Adp./33)**

It is hereby notified for the information of all concerned that the Vice-Chancellor, in anticipation of the approval of the Academic Council, is pleased to authorize the adoption of the Syllabi and Courses of Study in the subject of **Food Science and Quality Control** of Semesters **IIIrd** and **IVth** for **Four Year Under Graduate Programme** under the **Choice Based Credit System** as per **NEP-2020** (as given in the annexure) for the examinations to be held in the years as per the details given below:

Subject	Semester	for the examination to be held in the years
Food Science and Quality Control	Semester-III	December 2023, 2024 and 2025
	Semester-IV	May 2024, 2025 and 2026

The Syllabi of the courses is available on the University website:
www.jammuuniversity.ac.in

Sd/-
DEAN ACADEMIC AFFAIRS

No. F. Acd/II/23/ 3222-3232
Dated: 22-5-2023

Copy for information and necessary action to:

1. Dean, Faculty of Science
2. Convener, Board of Studies in Home Science /Food Science and Quality Control.
3. Sr. P.A.to the Controller of Examinations
4. All members of the Board of Studies
5. Confidential Assistant to the Controller of Examinations
6. I/C Director, Computer Centre, University of Jammu
7. Deputy Registrar/Asst. Registrar (Conf. /Exams. UG/Eval Non-Prof)
8. Incharge, University Website for Uploading of the notification.

Sumitashamo
Deputy Registrar (Academic)

SS
19/5/23
ASR
19/5
M
19/5/23

University of Jammu

Syllabi of *Food Science and Quality Control* at Four Year Under Graduate

Programme (FYUP) under Choice Based Credit System as per NEP – 2020

(Semester III & IV)

Semester - III
(Examination to be held December 2023, 2024, 2025)

S.No	Course Type	Course No.	Course Title	Credits (Theory + Practical)	Marks				Total Marks
					Theory		Practical/Tutorials		
1	Major	UMJFST301	Food Nutrition and Chemistry	(3 + 1)	Mid Semester 15 Marks	End Exam 60 Marks	Assessment 10 Marks	Exam 15 Marks	75 + 25 = 100
2	Major	UMJFST302	Food Microbiology	(3 + 1)	Mid Semester 15 Marks	End Exam 60 Marks	Assessment 10 Marks	Exam 15 Marks	75 + 25 = 100
3	Minor	UMIFST303	Introduction to Food Nutrition and Chemistry	(3 + 1)	Mid Semester 15 Marks	End Exam 60 Marks	Assessment 10 Marks	Exam 15 Marks	75 + 25 = 100
4	Multi disciplinary	UMDFST304	Food Quality Assurance and Sensory Evaluation	3	Mid Semester 15 Marks	End Exam 60 Marks		-	75
5	Skill Enhancement Course	USEFST305	Bakery Technology and Entrepreneurship	2	Mid Semester 10 Marks	End Exam 40 Marks		-	50



Syllabi of Food Science and Quality Control at FYUP under CBCS as per NEP-2020
Food Science and Quality Control
Semester III
(Examination to be held in December 2023, 2024, 2025)
Major Course (Theory)

Course Code: UMJFST301

Course Title: Food Nutrition and
Chemistry

Credits: 03

Total No. of Lectures: 45

Maximum Marks: 100

Theory= 75

Practical/Tutorial= 25

Course Learning Objective:

The Course is designed to enable the students to:

- Understand the relationship between nutrition and human well-being
- Know and understand the functions, importance of all nutrients for different age groups and special groups
- Understanding of chemistry of major components of food
- Know Composition and properties of food nutrients.

UNIT- 1

- Definitions & concepts: Food, food chemistry, nutrition, nutrients, adequate nutrition, malnutrition.
- Recommended dietary intake (RDI), Basal metabolism (BM), factors affecting RDI and BM.
- Water in foods: structure- Hydrogen bonding, function, sources, requirement.

UNIT – 2

- Carbohydrates: Definition, classification, sources, properties. Nutritional and industrial importance.
- Starch gelatinization and retrogradation.
- Fats: Definition, sources, properties and rancidity. Significance of MUFAS and PUFAS.

UNIT- 3

- Proteins: Definition, classification, sources, properties and industrial importance.
- Enzymes- Nomenclature, specificity, factors influencing enzyme activity
- Enzyme added to food during processing

UNIT- 4

- Pigments: Myoglobin, chlorophyll, anthocyanin and carotenoids: their sources and stability during processing.
- Non enzymatic browning reactions in foods- Caramelization and Maillard reaction.