

**Minutes of the Meeting of Board of Studies for B. Tech and M.Tech. Chemical Technology (Food Technology) held on July 5, 2024**

**Department of Food Technology**  
**School of Chemical Technology, HBTU, Kanpur**

An online meeting of the BOS members was held on July 05, 2024 at 11:30 AM for B. Tech and M. Tech. Chemical Technology (Food Technology) to finalize the syllabus of V and VI semesters of B. Tech. Food Technology and III and IV semesters of M.Tech. Food Technology as per the new course structure designed by the central committee of HBTU in view of National Education Policy (NEP-2020).

The following members were present during the meeting:

1.	Prof. Alak Kumar Singh, Head, Food Technology Deptt., HBTU, Kanpur	Chairman
2.	Prof. M.B. Bera, Retd. Professor, Department of Food Engineering and Technology, SLIET, Sangrur, Punjab (online)	Member
3.	Prof. Shiv Kumar Katiyar, Professor, Food Engineering and Technology, Bundelkhand University, Jhansi, Uttar Pradesh. (online)	Member
4.	Prof. Saghir Ahmad, Professor, Post-Harvest Engineering and Technology, Aligarh Muslim University, Aligarh, Uttar Pradesh (online)	Member
5.	Dr. Dheeraj Mishra, Quality and Food Safety Manager, Cadbury India Limited C/o Mrs. Bector's Foods and specialty Ltd, Phillur, Ludhiana Punjab. (online)	Member
6.	Mr. Arvind Tiwari, Country Head, Valency International, Ivorycoast. West Africa (online)	Member
7.	Dr. Vivek Kumar, Professor, Food Technology Deptt., HBTU, Kanpur	Member
8.	Dr. Anurag Singh, Associate Professor, Food Technology Deptt., HBTU, Kanpur	Member
9.	Mr. Vipul Kumar, Asstt. Professor, Food Technology Deptt., HBTU, Kanpur	Member
10.	Dr. Pankaj Jha, Guest Faculty, Food Technology Deptt., HBTU, Kanpur	Member

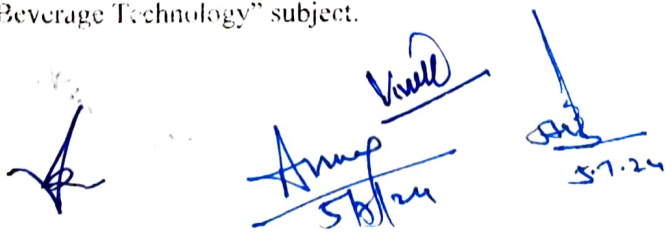
Chairman BoS, Prof. Alak Kumar Singh, welcomed all the members and invitees to the meeting and the following agenda were taken up and decision were taken thereon:

**1. Discussion and decision on syllabus of V and VI semesters of B. Tech- Chemical Technology (Food Technology)**

The proposed syllabus of various subjects in the V and VI semesters of B.Tech.-Chemical Technology (Food Technology) was thrughly discussed subjectwise and approved by the committee with following suggestions:

**a. Technology of Animal and Milk Products (NFT-301):**

- The content related to fermented dairy products should be removed from this paper to avoid duplicacy as it is already being covered in "Fermented Foods & Beverage Technology" subject.



- A topic "Quality evaluation of eggs" need to be added.
- A brief about the microbiology of milk need to be discussed.
- b. **Technology of Cereals, Pulses and Oilseeds (NFT-303):**
  - Topics Oil seed processing, Refining: Physical and Biorefining need to be added.
- c. **Fruits, Vegetables and Plantation Products (NFT-305):**
  - Add topic on cashew processed products like sprouted cashew/cashew milk
  - Add potato processing the syllabus
- d. **Food Processing Laboratory (NFT-307):**
  - The committee suggested to perform basic tests after manufacturing the product in the laboratory.
  - Add an experiment related to potato product processing
- e. **Food Safety and Quality Control (NFT-302):**
  - It was suggested to add topic on "Food Recall"
  - A topic "Blockchain Technology" need to be added.
  - Merger of BIS and AGMARK provisions with FSSAI rehulations need to be discussed.
- f. **Fermented Foods & Beverage Technology (NFT-304):**
  - Remove the topic "different type of Fermentation pathways" and replace it with "Types of fermentation" in module-I.
  - The committee also suggested the inclusion of malting along with Brewing.
- g. **Food Packaging and Storage Engineering (NFT-306):**
  - The committee suggested the addition of "Laminates" under flexible packaging

General comments given by the experts are:

- a. The CO-PO mapping should be done carefully for all the subjects.
- b. A dedicated subject for plant/ structure design may be created in future, if possible.
- c. A dedicated training/ wokshop should be organized for data analysis using Excel for the students.
- d. It was also suggested by the experts to discuss numericals related to the thermal processing (pasteurization/ standardization) of milk in the class.
- e. It was suggested to discuss the selection of equipment for various food processing operations in the class to enable them for establishing food plants in future.
- f. It was also suggested to give the assignments on plant desiging/ equipment selection for developing the critical thinking among students.

The approved syllabus of the subjects proposed in the V and VI semesters of B. Tech. Chemical Technology (Food Technology) is attached as Annexure-I.

## **2. Discussion and decision on the subject basket and syllabus for the Minor degree in Food Processing and Technology.**

The proposed subject basket and syllabus of various subjects offered to the B.Tech. program, other than Food Technology, for obtaining a Minor degree in Food Processing and Technology were unanimously approved by the committee..

The approved subject basket and syllabus of the subjects for minor degree in Food Processing and Technology is attached as Annexure-II

### 3. Discussion and decision on course structure and syllabus of III and IV Semesters M.Tech- Chemical Technology (Food Technology)

The chairman apprised the committee that the course structure of the III and IV semesters M.Tech- Chemical Technology (Food Technology) has been prepared as per the model course structure provided by the central committee of the university based on NEP-2020. The committee unanimously approved the proposed structure and the syllabus of the respective courses offered in the III and IV semesters.

However, the committee suggested the following revisions for the courses offered in the III semester:

a. **Frozen Foods and Cold Chain Management (NFT-601):**

- Committee suggested removing "Cryogenic system" from Module II as there is a separate PEC in II semester "Cryogenic Systems in food processing".
- The committee suggested removing the topics "MAS, MAP, CAS, CAP" from module V.

b. **Computer Application in Food Processing (NFT-605):**

- The committee suggested adding topics on Machine Learning, Finite Element Method, Data Analysis in Excel.

The approved course structure and syllabus of III and IV semesters of M. Tech. Chemical Technology (Food Technology) is attached as Annexure-III

Chairman BOS thanked all members for their important and useful inputs in improving the syllabus of B.Tech & M.Tech.

The meeting ended with a vote of thanks to the chair:

*online*  
(Prof. M.B. Bera)

*online*  
(Prof. Shiv Kumar Katiyar)

*online*  
(Prof. Saghir Ahmad)

*online*  
(Dr. Dheeraj Mishra)

*online*  
(Mr. Arvind Tiwari)

*Vivek*  
(Dr. Vivek Kumar)

*Anurag Singh*  
(Dr. Anurag Singh)

*Vipul Kumar*  
05/07/24  
(Mr. Vipul Kumar)

*Pankaj*  
(Dr. Pankaj Jha)

*Alak*  
5.7.2024  
(Prof. Alak Kumar Singh)