

ASSIGNMENT BOOKLET

Bachelor of Science (Food Safety and Quality Management) (BSCFFSQM)

Academic Sessions: July 2025 and January 2026

Course: BPVC-103 - FOOD MICROBIOLOGY AND TOXICOLOGY



**School of Agriculture
Indira Gandhi National Open University,
New Delhi – 110 068**

July 2025 and January 2026

SUBMISSION OF ASSIGNMENTS

Course Code	Last Date for Submission of Assignments at LSC/PSC	
	July 2025 Session (for June 2026 TEE)	January 2026 Session (for December 2026 TEE)
BPVC - 103	30 th March 2026	30 th September 2026
For other courses of semester one, kindly refer the concerned assignment		

Note:

- Kindly submit your assignments at the concerned Learner Support Centre (LSC)/Programme Study Centre (PSC) within the due date as mentioned above.
- Before submitting the examination form (March and September for June and December Term-end examinations, respectively), it is mandatory to submit the assignments.

Dear learner,

Welcome to the 3rd Semester of “Bachelor of Science (Food Safety & Quality Management) programme.

You are requested to go through the course materials first and then prepare the assignment response following the instructions. Your responses should not be a complete reproduction of the textual material/blocks provided for self-learning purposes. Please submit your assignment responses at the Learner Support Centre (LSC) allotted to you on or before the due date. The assignments will be evaluated by the Counsellors at the study centre/Programme Study Centre (PSC) and the respective weightage of marks will be added to the percentage of marks obtained at the term-end examination. Each candidate will have to complete assignments in order to appear in the term-end examination. Candidates are, therefore, advised to take assignments seriously and submit them on time.

General Instructions

- 1) If you fail to submit the assignments before the due date of the particular session, you are supposed to attempt a fresh set of assignments for subsequent sessions.
- 2) Write your Enrolment Number, Name, Full Address and Date of Despatch at the top right-hand corner of the first page of your answer sheet.
- 3) Write the Programme Title, Course Title, Assignment Code, Code and Place of the Study Centre on the left-hand corner of the first page of your answer sheet.

The top of the first page of your answer sheet for each assignment should be as follows:

Programme Title	Enrolment No
Course Code	Name
Course Title	Address
Study Centre Code.....
(Place)	Date

Note: Students are required to follow this format strictly.

- 4) Your answer sheet should be complete in all respects. Make sure that you have answered all the questions in the assignments before you submit them. Incomplete answer sheets will yield poor marks.
- 5) As far as possible, you are advised to give the relevant points from the course material and elaborate their answers and explanations in their own language instead of reproducing the language of the course materials.
- 6) You are advised not to copy from the study material while attempting the assignments. In case it is found that the assignments have been copied from the study material, you will be awarded zero marks.
- 7) Avoid copying from the answer sheets of other students. If copying is noticed, the assignments of such students will be rejected.
- 8) Use only foolscap size paper for your answers, ordinary writing paper, neither too thick nor too thin, will do. Assignments should be handwritten. Typed assignments are not acceptable.
- 9) Leave 3” margin on the left and at least 4 lines in between each answer in an assignment. This will enable your Counsellor to write useful comments in appropriate places. Write the question number for each answer clearly.
- 10) The coordinator of your LSC/PSC will return the evaluated assignments to you. This will also include a copy of the assessment sheet containing global comments of the evaluator on your performance in the assignments. This will enable you to improve in your future assignments as well as in the term-end examinations.
- 11) The Assignments should be sent or submitted to the Coordinator/ Programme In-charge of the Learner Support Centre/PSC allotted to you.

Before attempting the assignments, please read the instructions carefully.

Wishing you all the best for the successful completion of the BSCFFSQM programme.

HAPPY LEARNING!

Programme Coordinators (BSCFFSQM)

SEMESTER – 3

DISCIPLINE-SPECIFIC CORE COURSE

COURSE CODE: BPVC-103

COURSE TITLE: FOOD MICROBIOLOGY AND TOXICOLOGY

Assignment has two parts. Submit both parts together.

Maximum Marks: 100

PART – A: ASSIGNMENTS

Attempt all questions. All questions carry equal marks. Write your answers in about 500 words.

Marks: 5x10=50

1. Food microbiology plays a dual role in ensuring food safety and enhancing food quality. Discuss the importance of microorganisms in foods, highlighting their beneficial and harmful roles with suitable examples. 10
2. Explain the different factors affecting the growth of microorganisms and discuss their significance in food microbiology. 10
3. Biotechnology has revolutionized the food industry by improving nutrition, extending shelf-life, enhancing food processing techniques and ensuring food safety. Discuss the role of biotechnology in these areas with suitable examples. Critically evaluate both the potential benefits and the safety concerns associated with biotechnological applications in food production and processing. 10
4. Imagine you are a food safety officer investigating a suspected food-borne illness outbreak in a local community. Apply your knowledge to identify possible causes, suggest appropriate preventive measures, and explain how WHO's golden rules could be implemented to control and prevent future outbreaks. 10
5. Describe the principles of toxicology, the major types and sources of food toxicants, and their effects on human health. Critically analyze preventive strategies and regulatory measures to minimize risks associated with food toxicants. 10

PART – B: ACTIVITIES

Perform all activities. Submit the evidence (activities notebook, charts etc.) of any FIVE Activities. For details, kindly refer to Block 6 Activities Manual. Marks: 5x10=50

Activity 1: Observation of changes in bread kept at room temperature.

Activity 2: Observation of milk spoilage kept at room temperature.

Activity 3: Assessment and comparison of the shelf-life of whole and cut vegetables under room conditions.

Activity 4: A Study on the pesticide residues in a food commodity.

- Activity 5:** Survey to gather information on the incidence of foodborne diseases.
- Activity 6:** Visit a local market to gather information on various probiotic food Products available.
- Activity 7:** Comparison of a beverage packed in Tetra Pack with a bottled beverage with respect to food additives.
- Activity 8:** Observation of changes in sun drying of vegetables.

NOTE:

For the assignment questions of other generic courses you have opted for in the 3rd semester i.e. Discipline Specific Minor, and Ability Enhancement Course (AEC), kindly download them (search course codes in the format i.e. BCOS-185 (for courses you have opted check your registration status), select the correct session and download them) from the assignment section of the IGNOU website (<https://www.ignou.ac.in/studentService/download/assignments>).