

## 1. SALIENT FEATURES OF THE DIPLOMA PROGRAMME IN FOOD TECHNOLOGY

1. Name of the Programme : Diploma Programme in Food Technology
2. Duration of the Programme : Three Years
3. Entry Qualifications : Matriculation or equivalent as prescribed by State Board of Technical Education, Haryana
4. Intake : 30 (or as prescribed by the Board)
5. Pattern of the Programme : Semester Pattern
6. Ratio between Theory & Practical : 41 : 59

### 7. **Industrial Training:**

Six weeks of industrial training is included after IV semester during summer vacation. Internal assessment out of 50 marks and external assessment out of another 50 marks will be added in 5<sup>th</sup> semester. Total marks allotted to industrial training will be 100.

Distribution of Marks:

- Daily diary and reports of training - 50 Marks
- Viva Voce (External) - 50 Marks

### 8. **Ecology and Environment:**

As per Govt. of India directives, a subject on Environmental Education has been incorporated in the scheme.

### 9. **Entrepreneurship Development:**

A subject on Entrepreneurship Development and Management has been incorporated in the scheme.

### 10. **Student Centred Activities:**

A provision of 5-6 hrs per week has been made for organizing Student Centred Activities for overall personality development of students. Such activities will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/ Disaster Management activities etc.

## **2. EMPLOYMENT OPPORTUNITIES**

Diploma holders in food technology find wage/self employment in the following major areas:

### **1. Wage employment**

- Fruit and vegetable processing
- Bakery and confectionery
- Beverages
- Dairy
- Oil and fat
- Meat, fish and poultry
- Health and specialized food
- Grain milling
- Convenience food
- Quality control
- Educational institutions
- KVIC etc

### **2. Self employment**

- Fruit and vegetable processing
- Bakery and confectionery
- Dairy
- Milling of grains and spices
- Oil expelling units
- Snacks
- Service units to larger industry/ ancillary units

### **3. COMPETENCY PROFILE OF DIPLOMA HOLDERS IN FOOD TECHNOLOGY**

Keeping in view the employment opportunities and activity profile of Diploma holders in food technology, the course is aimed at developing following knowledge and skills in the students:

- Knowledge and skills in type and quality of raw material(s) for specific product applications
- Process technology for preservation and processing of various food items
- Operation and maintenance of process equipment
- Product evaluation
- FPO/Agmark/PFA/BIS standards
- Marketing/managerial/ promotion of sales
- Communication (oral and written)
- Computer/information technology
- Testing, quality control and fault diagnosis
- Hygiene, sanitation and housekeeping
- Project feasibility report
- Plant layout and flow diagram
- Safety, waste control and effluent treatment plant
- Packaging, storage, handling and transportation
- Marketing and managing different shop floor operations
- House keeping

#### 4. DERIVING CURRICULUM AREAS FROM COMPETENCY PROFILE

Sr. No.	Competency Profile	Curriculum Areas
1.	Knowledge and skills in type and quality of raw material(s) for specific product applications	- Principles of food processing and preservation
2.	Process technology for preservation and processing of various food items	- Basic Microbiology - Food Microbiology - Various food Technology subjects - Principle of food Processing and preservation - Applied Sciences subjects
3.	Operation and maintenance of process equipment	- Unit operation in food processing - Instrument and process control - Engineering Drawing - General workshop practice
4.	Product evaluation	- Food Analysis and Quality Control
5.	FPO/Agmark/PFA/BIS standards	- Various food technology subjects
6.	Marketing/managerial/promotion of sales	- Entrepreneurship Development and Management
7.	Communication (oral and written)	- English and Communication Skills
8.	Computer/information technology	- Basics of IT - Computer Application in Food Technology
9.	Testing, quality control and fault diagnosis	- Food Analysis and Quality Control
10.	Hygiene and sanitation and housekeeping	- Food Packaging Technology - Waste Management in Food industry
11.	Project feasibility report	- Project Oriented Professional Training - Entrepreneurship Development and Management
12.	Plant layout and flow diagram	- Project Oriented Professional Training

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|-----|---|---|
| 13. | Safety, waste control and etc                   | - Waste Management in food industry<br>- Environmental Education                |
| 14. | Packaging, storage, handling and transportation | - Food Packaging Technology   |
| 15. | House keeping                                   | - Project Oriented Professional Training<br>- Waste Management in food industry |

## 5. ABSTRACT OF CURRICULUM AREAS

### a) General Studies

1. English and Communication Skills
2. Employability Skills
3. Environmental Education
4. Entrepreneurship Development and Management

### b) Applied Sciences

5. Applied Mathematics
6. Applied Physics
7. Applied Chemistry

### c) Basic Courses in Engineering/Technology

8. Engineering Drawing
9. General Workshop Practice
10. Basics of Information Technology
11. General Engineering
12. Basic Microbiology
13. Food Microbiology
14. Food Chemistry and Nutrition
15. Principles of Food Processing and Preservation
16. Principles of Food Engineering

### d) Applied Courses in Engineering/Technology

17. Unit Operations in Food Processing
18. Handling, Transportation and Storage of Foods
19. Technology of Cereals and Pulses
20. Technology of Milk & Milk Products
21. Fruit & Vegetable Technology
22. Technology of Meat, Fish & Poultry Products
23. Food Fermentation Technology
24. Technology of Non-Alcoholic Beverages
25. Bakery & Confectionery Technology
26. Computer Applications in Food Technology
27. Health & Functional Foods
28. Instrumentation and Process Control
29. Technology of Oils and Fats
30. Project Oriented Professional Training
31. Food Packaging Technology
32. Food Analysis & Quality Control
33. Waste Management in Food Industry
34. Project Oriented Professional Training

## 6. HORIZONTAL AND VERTICAL ORGANISATION

Sr. No.	Subject	Distribution of time in various semesters					
		I	II	III	IV	V	VI
1.	Communication Skills	5	5	-	-	-	-
2.	Applied Mathematics	5	5	-	-	-	-
3.	Applied Physics	6	6	-	-	-	-
4.	Applied Chemistry	5	5	-	-	-	-
5.	Engineering Drawing	6	-	-	-	-	-
6.	General Workshop Practice	6	6	-	-	-	-
7.	Basics of Information Technology	4	-	-	-	-	-
8.	General Engineering	-	5	-	-	-	-
9.	Basic Microbiology	-	5	-	-	-	-
10.	Food Microbiology	-	-	7	-	-	-
11.	Food Chemistry and Nutrition	-	-	5	-	-	-
12.	Principles of Food Processing and Preservation	-	-	5	-	-	-
13.	Unit Operations in Food Processing	-	-	5	-	-	-
14.	Handling, Transportation and Storage of Foods	-	-	5	-	-	-
15.	Technology of Cereals and Pulses	-	-	7	-	-	-
16.	Technology of Milk & Milk Products	-	-	-	8	-	-
17.	Fruit & Vegetables Technology	-	-	-	6	-	-
18.	Technology of Meat, Fish & Poultry Products	-	-	-	6	-	-
19.	Food Fermentation Technology	-	-	-	5	-	-
20.	Principles of Food Engineering	-	-	-	5	-	-
21.	Bakery & Confectionery Technology	-	-	-	5	-	-
22.	Employability Skills	-	-	-	-	2	2
23.	Environmental Education	-	-	-	-	3	-
24.	Computer Applications in Food Technology	-	-	-	-	5	-
25.	Health & Functional Foods	-	-	-	-	5	-
26.	Instrumentation and Process Control	-	-	-	-	3	-
27.	Technology of Oils and Fats	-	-	-	-	5	-
28.	Project Oriented Professional Training	-	-	-	-	12	12
29.	Entrepreneurship Development and Management	-	-	-	-	-	3
30.	Food Packaging Technology	-	-	-	-	-	4
31.	Technology of Non-alcoholic Beverages	-	-	-	-	-	4
32.	Food Analysis & Quality Control	-	-	-	-	-	5
33.	Waste Management in Food Industry	-	-	-	-	-	5
34.	Student Centered Activities	3	3	6	5	5	5
	<b>Total</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>