

FCSCC15

FOOD QUALITY CONTROL AND SAFETY MANAGEMENT

SYLLABUS & ASSESSMENT PROCEDURE

COURSE DESCRIPTION:

This course provides a comprehensive understanding of the principles, practices, and regulations governing food quality control and safety management. Students will explore the critical components of ensuring the safety and quality of food products from farm to fork, with a focus on industry best practices and regulatory requirements. Students will acquire hands-on experience with various food testing methods and techniques used to assess quality attributes and detect contaminants. Laboratory sessions will cover microbiological, chemical, and physical analyses essential for ensuring food safety and quality. By the end of the course, students will be equipped with the expertise to implement effective quality control measures, manage food safety risks, and ensure compliance with regulatory standards in the food industry. Whether pursuing careers in food production, processing, distribution, or regulatory agencies, this course will provide students with a solid foundation to excel in the dynamic and critical field of food quality control and safety management.

SYLLABUS

FCSCC15 FOOD QUALITY CONTROL AND SAFETY MANAGEMENT

Credit: 2

Course Duration: 30 hrs.

OBJECTIVES:

1. To understand the principles of food safety and quality management
2. To learn about food safety regulations and standards
3. To gain knowledge of hazard analysis and critical control points (HACCP)
4. To understand the importance of maintaining food quality and safety in the industry
5. To develop skills in implementing quality control measures in food production

COURSE OUTCOME:

- CO1 Able to understand the legal requirements and regulations related to food safety and quality management
- CO2 Implement hazard analysis and critical control points (HACCP) in food production processes



- CO3 Identify potential food safety hazards and develop strategies for their prevention and control
- CO4 Implement quality control measures to ensure the production of safe and high-quality food products
- CO5 Develop and implement food safety management systems in compliance with industry standards and certifications.

Module 1: Introduction to Food Safety and Quality Management

Overview of food safety and quality management- Legal requirements and regulations- Basics of food microbiology and foodborne illness

Module 2: Food Safety Standards and Certifications- Global food safety standards (ISO, HACCP, etc.)- Food safety certifications and requirements- Food safety management systems (FSMS)

Module 3: Hazard Analysis and Critical Control Points (HACCP)- Principles of HACCP- HACCP implementation and monitoring- HACCP plan development

Module 4: Quality Control Measures- Quality assurance and control- Quality management systems (QMS)- Good manufacturing practices (GMP)

Module 5: Food Safety Audits and Inspections- Conducting food safety audits- Compliance inspections and corrective actions- Documentation and record-keeping

Module 6: Implementing Food Safety and Quality Management Systems- Developing and implementing food safety and quality management systems- Role of management and staff in ensuring food safety and quality- Continuous improvement and training programs

RELATED EXPERIENCES:

Visit to a nearby Food Establishment

Nutrient Analysis of Foods

REFERENCES:

1. Andres Vasconcellos J. 2005. Quality Assurance for the Food industry - A practical approach. CRC press.
2. Inteaz Alli. 2004. Food quality assurance - Principles & practices. CRC Press. New York.
3. Sara Mortimore and Carol Wallace. 2013. HACCP - A practical approach. Third



edition. Chapman and Hall, London.

4. Roday, S. 1998. Food Hygiene and Sanitation, Tata McGraw-Hill Education.
5. Neal D. Fortin. 2009. Food regulation, Wiley Publishers.
6. Naomi Rees. David Watson. 2000. International standards for food safety, An Aspen Publications.
7. O'Rourke. 2005. European Food law, 3rd Edition, Thomson, Sweet and Maxwell.

STRATEGIES FOR INSTRUCTION

The course can be conducted through both online and offline classes.

Online tools such as google meet, Zoom, WhatsApp, Google Classroom etc. can be used for theory classes.

Lecture, lecture cum demonstration, hands-on training, experiential learning, etc. may be adopted as teaching-learning strategies

Lecture cum demonstration method can be provided for theory papers and hands-on training and demonstrations can be provided for practical classes

SCHEME OF EVALUATION

METHOD OF EVALUATION			
Assessment Methods	Criteria	Marks	Weightage
Formative Assessment (FA)	Attendance	4	25%
	Assignment/Project/Activities/Reports	6	
Summative Assessment (SA)	Test Paper	30	75%
	Total	40	100



ATTENDANCE

Attendance	Marks
90-100%	4
85-89.9%	3
40-84.9%	2
75-79.95	1
<75%	0

GRADING POLICY

Grade	Percentage of total marks (FA+SA)
A	80% & above
B	60-79.9%
C	50-59.9%
D	40-49.9%
Not qualifying	<40%



Model Question Paper
Certificate Course
FCSCC15 Food Quality Control and Safety Management

Time: 1 Hour

Max Marks: 30

1. What is HACCP and why is it important in food safety management?
2. Describe three common foodborne pathogens and their associated illnesses.
3. What are the primary components of a food safety management system (FSMS)?
4. Explain the concept of sensory evaluation in food quality control
5. What are the key elements of a food label that contribute to regulatory compliance?
6. Briefly describe the role of food safety certifications in the food industry.
7. What are the four basic principles of food safety management?
8. Describe the difference between food safety and food quality.
9. How does temperature control contribute to food safety?
10. Define the term "food recall" in the context of food safety management.
11. What is the significance of Good Manufacturing Practices (GMPs) in food production?
12. Describe the role of government regulatory agencies in ensuring food safety.
13. What steps can food establishments take to prevent foodborne illness outbreaks?
14. What role do food safety certifications play in the food industry?
15. Explain the significance of critical control points (CCPs) in HACCP.




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