

DISCIPLINE SPECIFIC CORE COURSE**DSC FT 20: FOOD STANDARDS AND REGULATIONS****CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITE OF THE COURSE**

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
Food Standards And Regulations DSC FT 20	4	3	0	1	Studied XII	Nil

Learning Objectives

- To understand the concept of food standards and food safety.
- To comprehend the need for Regulations pertaining to the safety of food, their implementation and the agencies involved in this process at the National and International levels.
- To know the requirements for the Food Business Operators in terms of licensing, registration and labeling

Learning Outcomes

After completing this course, students will be able to understand:

- The food standards, their types, their formulation process, and relevance in consumer safety
- Food categories and groups mentioned as per the FSSA act
- Transition of various acts and orders to one single National food regulatory system in India
- Role of agencies for exporting food commodities from India
- Requirements for the Food Business Operators in terms of licensing, registration and labeling
- Global standards related to food safety and the role of international organizations

SYLLABUS OF DSC FT 20

Theory
(Credit 3; Hours 45)

Unit I: Food Standards **8 Hours**

Unit Description: This unit shall introduce students to types of standards and specifications related to food commodities. The various stages that are involved in the formulation of food standards shall be discussed. The various types of foods that are discussed under our current regulations will also be covered for a better understanding of the regulations.

Subtopics:

- Difference between food standards and specifications
- Types of Standards- vertical and horizontal
- Stages for Formulation of Food Standards
- Definitions of Proprietary food, non-specified foods, Nutraceuticals, Functional Food, Novel Food, bioactive compounds, antioxidants, food allergens, fortified foods

Unit II: National Food Regulatory Status

17 Hours

Unit Description: The transition of various acts and orders to one single National food regulatory system shall be covered in this unit. Students shall understand the difference between accreditation and certification process. To make students understand the requirements for exporting food commodities from India, the role of export promotion organizations shall be taken up.

Subtopics:

- FSSAI – (transition from PFA, FPO, MMPO, MFPO), composition and role
- Qualification and duties of public analyst and Food Safety Officers
- FSS Act, Rules and Regulations – Schedule 4(basic requirements and significance)
- Accreditation, Certifications (BIS, QCI, AGMARK, etc.)
- Role of Export Promotion Organizations / Commodity Boards in food safety (APEDA, MPEDA, Spices Board, etc.) and Export Inspection Council

Unit III: Requirements for Food Business Operators

10 Hours

Unit Description: A “food business operator” in relation to food business means a person by whom the business is carried on or owned and ensures compliance of the rules and regulations of FSS Act. In this unit, the requirements for food business operators shall be taken up.

Subtopics :

- Licensing and Registration of Food Businesses
- The Legal Metrology (Packaged Commodities Rules)
- Labelling requirements, Advertising and Claims
- Food recall procedure

UNIT IV: International Food Standards

10 Hours

Unit Description: This unit shall deal with the global standards related to food safety. These standards are developed through the consensus of experts from several countries, allowing users to achieve similar products every time.

Subtopics:

- WTO, Agreements on Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT),
- International Organization for Standardization (ISO)
- CODEX, FAO, WHO ,JECFA, JEMRA, OIE

PRACTICAL
(Credit 1; Hours 30)

1. Analysis of food labels of commonly consumed foods for compliance to standards.

2. Case study of a food recall/ export rejection.
3. Understanding the process of auditing using a checklist.
4. Market survey of different food types understanding their categorization.
5. Comparative study of Codex, USDA, EFSA and FSSAI standards for selected food types.
6. Understanding the concept of harmonisation of standards using any one food type.

Essential Readings

- Hester, R. E. & Harrison, R. M. (2001) *Food Safety and Food Quality :Issues in Environmental Science and Technology* ,Cambridge.
- Paster, T. (2007) *The HACCP Food Safety Training Manual*, John Wiley and Sons Inc. 2007
- Roday, S (1999) *Food Hygiene and Sanitation*, Tata McGraw Hill.
- Ilbco's (2017) *Food Safety and Standards Act 2006, Rules 2011, Regulations 2011* with comments, short notes, gazette notifications, Advisories, Digest of food safety case laws, Images/banners on Food Safety, Commodity & Word Index -International Law Book Company, India, 18 th edition.
- Boisrobert, C., Stjepanovic, A., Oh, S. & Lelieveld, H. (2009) *Ensuring global food safety: Exploring global harmonization* ,Academic Press.

Important Websites

- Food Safety and Standards Authority of India-<http://www.fssai.gov.in/home#>
- Bureau of Indian Standards <http://www.bis.gov.in/>
- Agricultural and Processed Food Products Export Development Authority (APEDA) <http://apeda.gov.in>
- Spices Board of India <http://www.indianspices.com/>
- Export Inspection Council of India <https://www.eicindia.gov.in/>
- Codex Alimentarius Commission -<http://www.fao.org/fao-who-codexalimentarius/en/>
- Quality Council of India <http://www.qcin.org/#>
- International Organization for Standardization <https://www.iso.org/home.html>
- International Laboratory Accreditation Cooperation (ILAC) <http://ilac.org/>
- International Accreditation Forum (IAF) <http://www.iaf.nu/>

Suggested Readings

- Mathur, P. (2018). *Food Safety and Quality Control*. Hyderabad: Orient BlackSwan Pvt. Ltd.
- Agarwal, P. & Mathur, P. (Eds) (2021). *Eat Right: A Food Systems Approach*. Food Future Foundation. ISBN 978-93-5526459-6.
- Codex Guidelines on Nutrition Labelling 2021