

DISCIPLINE SPECIFIC ELECTIVE (DSE)
UG FSc. T. DSE 17501
FTS16D: FOOD SCIENCE TECHNOLOGY – FOOD QUALITY ASSURANCE AND PACKAGING
CREDITS: THEORY = 4, PRACTICAL = 2

Unit I

- Sampling - Definition and types.
- Establishment of quality control laboratory.
- HACCP and GMP
- Introduction of national and international food laws.
- Food safety and standards act – 2006

Unit II

- Sensory evaluation of foods – Introduction, Sensory perception – appearance, flavour, texture.
- Selection of sensory panellists.
- Classification of sensory tests.

Unit III

- Refractometry – Basic principles and applications.
- Optical aspects of color (Tinto meter)
- Chromatography (Column, Paper)
- Spectroscopy- Principles and applications.
- Texture analysis of foods.

Unit IV

- Packaging – definition and functions.
- Properties of different packaging materials – glass, metal, polymers.
- Packaging requirements of various foods – fruits, vegetables, milk, meat and their processed products.
- Novel Food Packaging techniques – Active packaging, MAP

PRACTICALS

1. To examine the quality of fruits and vegetables, milk and meat.
2. Sensory methods of measuring food attributes – Difference tests and Rating tests.
3. Common adulterants in milk, chillies, honey and their detection.
4. Identification of different packaging materials.

5. Working of spectrophotometer and Refractometer.
6. Visit to research labs and industries.

References:

1. Food quality evaluation by Eram S. Rao.
2. Food Packaging Principles by Gordon Robertson.
3. Handbook of Food Packaging by Paine and Paine.
4. Food Packaging – Science and Technology by Lee.
5. Food Analysis by Pmeranz.
6. Food Analysis by Suanne Nielsen.