CLUSTER UNIVERSITY SRINAGAR

SYLLABUS (FYUP UNDER NEP 2020)

Offered By Department Of CHEMISTRY

Semester 1st Skill Enhancement Course (SEC)

Course Title: Food Chemistry-I

Course Code: UGCHM22S102 **Max. Marks 100**
Credits: 4 (Theory: 1, Practical: 3) **Theory External: 15; Min Marks: 06**
Contact Hrs:105 (Theory: 15, Practical: 90) **Theory Internal (Continuous Assessment): 10 Marks, Min Marks: 04**
Practical Experimental Basis= 45 Marks, Min. Marks: 18
Practical Internal (Continuous Assessment): 30 Marks, Min. Marks: 12

Course objectives:

- To introduce the students to basic concepts of food Science and the chemical nature of food additives.
- To sensitize students to legal regulations and food safety and standards authority of India.
- To train students with various processes involved in storing and preserving locally available foods/food products by conventional/industrial methods.
- To give students first-hand experience of food processing techniques.

Course Outcomes: The students after learning the course will be able to:

- Understand the basic concepts of food science and the chemical nature of food additives.
- Know the legal regulations and food safety acts of the Standard Authority of India.
- Prepare, preserve and store locally available food/food products.
- Understand the basic techniques involved in food processing and storage.

THEORY:

UNIT I: Introduction to Food Science

Concept of food, food science, functions, and basic components of food. Food additives – Introduction, classification, and function.
Food additives intake assessment. Risks and benefits of food additives.
Labelling of food additives according to the EU.
Legal regulations and Food Safety and Standards Authority of India.

PRACTICALS:

UNIT II: Solutions and their preparations

1. Preparation of solutions (v/v and w/v)
2. Standardization of solutions
3. Dilution of solutions

UNIT III: Storage and Preservation

1. Preparation and preservation of apple/ quince jam.
2. Preparation of pickles
3. Visit to food processing plants

UNIT IV: Permitted Additives

1. Estimation of acetic acid content in commercial vinegar.
2. Estimation of nutrient content in food products.
3. Visit to cold storage units

References:

1. Food adulteration and food fraudby Jonathan Rees, London, Reaktion Books, 2020.
2. Detection of the Common Food Adulterantsby Edwin Morris Bruce; Palala Press, 2016.
3. Fennema's Food Chemistry by Damodaran ParkinFennema, CRC Press, 2017.
4. Rapid Detection of Food Adulterants and Contaminants; Theory and Practice by Shyam Narayan Jha; Academic Press, 2016.
5. A first course in Food Analysis – A.Y. Sathe, New Age International (P) Ltd., 1999.
6. Manuals of Methods of Analysis of Foods – Food Safety & Standards Authority of India.