

OBJECTIVES: To enable the students to

1. Gain knowledge of the nutritive value and properties of different foods.
2. understand the classification of foods according to their function
3. Understand the principles underlying the different methods of cooking.

COURSE:

UNIT I: Introduction – terms, scope of Food Science, functions of food. Food as a source of nutrients. Classification of food as given in the bulletin and nutrients supplied by each group. Concept of Genetically modified foods.

UNIT II: Methods of Cooking – moist and dry methods. Merits and demerits of each method. Microwave and Solar cooking.

UNIT III: Structure, Composition, Nutritive Value, Products, and Storage of

- a. Cereals and grains
- b. Pulses and legumes
- c. Nuts and oil seeds
- d. Vegetables and fruits

UNIT IV: Structure, Composition, Nutritive Value, Products and Storage of

- e. Milk and milk products
- f. Eggs
- g. Fish, poultry and meat
- h. Oils and fats
- i. Sugar and jaggery
- j. Spices and condiments

UNIT V: Quality Aspects of Food:-

- a. Food Microbiology – Contamination, Spoilage, Microbial toxicants & Food borne illness.
- b. Food additives
- c. Food adulteration PFA act and standards – Agmark, ISI and FPO.
- d. Food preservation – Scope and significance, Methods applying Heat, Cold, Dehydration, chemicals & others.

REFERENCES:

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4. Manay S. (1975) Basic Principles of Food Preparation, The Eastern press Ltd., Bangalore.
5. Chakravarthy I. (1975) Saga of Indian food. Sterling Publishers (P) Ltd., New Delhi.
6. Kilgour, O.F.G. And Aileen,L. (1984) Experimental Science for catering and Home craft students. Heinmann Publishers, London.
7. Evans, N.R.(1952) Food preparation manual. Harper Row publishers, New York.
8. Peckham G.C.(1972) Foundations of Food preparation. Collier Macmillan, London.
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- 10.Kotschevar, L.H. and Mc. Williams M. (1969) Understanding food. Jhon Wiley and sons, New york.
- 11.Hughes O.(1971)Indroductory Foods. Coollier Mac Millan Book & Co., London.
- 12.Vail, Philips, Rust, Griwwold and Justin (1973) Food, Houghton Mifflin & Co. Ltd. Boston.
- 13.Fox B. and Cameron A.G.(1969) Food Science – a chemical approach. University of London Press, London.
- 14.Iyengar and Sukhla (1954) Indian Food Laws. CFTRI, Mysore.
- 15.White R.B.(1972) Food and Your Future. Prentice Hall Inc. N.J.
- 16.Srilakshmi K., Rama Sastri B.V. and Ramadas Murthy V. (1973) Food and Health, NIN, Hyderbad.
- 17.Gopalan, C., Rama Sastri B.V., Balasubramanian,S.C.(1989) Nutritive Value of Indian Foods, National Institute of Nutrition, Hyderabad.

OBJECTIVES: To enable the students to develop skills to prepare recipes. acceptable with reference to appearance, palatability and nutritive value.

COURSE:

UNIT I: EXPERIMENTS ON :

- a. **CEREALS** : Microscopic examination of starch, extraction of gluten from wheat flour and maida, gelatinization and comparison of methods of cooking rice.
Study of fermentation in Indian foods.
- b. **PULSES** : Effect of sprouting, methods of cooking legumes and pulses – comparison.
- c. **FRUITS AND VEGETABLES** : Effect of pH and heat on vegetable and fruit pigments, prevention of browning, test for pectin, effect of cooking on cellulose.
Factors to be considered while cooking vegetables.
- d. **EGGS** : Differences between fresh and stale eggs, yolk and albumin index. Coagulation temperature of different parts of egg, and qualitative tests for solubility of proteins. Factors affecting custard and omelets preparation.
- e. **MEAT** : Microscopic structure of meat .
- f. **MILK** : Tests for protein , carbohydrates, lipids and protein in milk, observation of physical characteristics of milk and curd, effect of PH and heat on milk . Testing the quality of milk with a lactometer.

UNIT II: Sugar and jaggery – Stages of cookery.

UNIT III: Training on Food preservation during holidays.

REFERENCES:

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