

Introduction to Food Science and Technology 3(2-1)

Theory

Introduction: food science, food technology, relationship with other disciplines, career opportunities. Significance of food science and technology. Global and national food and nutrition situation. Food industry: history, developments, important food industries in Pakistan. Food sources: plants, animals, marine. Food constituents and their functions: water, carbohydrates, lipids, proteins, vitamins, minerals. Classification of foods: perishability, pH. Food spoilage agents: enzymes, microorganisms, pests, physical factors. Principles of food preservation: prevention or delay of autolysis, microorganisms, pests, physical defects.

Practical

Use of laboratory equipments. Estimation of moisture, fat, protein, carbohydrates, fiber and ash in food samples. Determination of soluble solids, total solids, pH, acidity, total sugars, specific gravity, refractive index and peroxide value.

Books Recommended

1. Potter, N.N. and Hotchkiss, J.H. 2007. Food science. The AVI Pub. Co. Inc., Westport, Connecticut, USA.
2. Awan, J.A. 2005. Food science and technology. Unitech Communications, Faisalabad- Pakistan.
3. Awan, J.A. and Rehman, S.U. 2003. Food analysis manual. Unitech Communications, Faisalabad.

Website: www.foodscienceuniverse.com