

## **Cereal Technology 3(2-1)**

### **Theory**

Cereal grains: importance, production, structure, composition, nutrition: Grain grades and grading. Storage: methods, types, role of temperature and moisture, safe storage methods. Dry milling process: cleaning, tempering, conditioning. Grinding process: types of grinding machines. Sieving process: principles, types of sifters. Flour treatment and quality assessment. Rheology of doughs and batters. Maize - wet milling: production of starch, oil, protein. Rice: Drying, milling, parboiling. Processing of rice and oats. Malting and brewing. Production of breakfast cereals and snack foods. Feed and industrial uses of cereals.

### **Practical**

Grading of grains. Milling of cereal grain through different mills. Tests for flour quality assessment. Visit to wheat, maize and rice processing industries.

### **Books Recommended**

1. Delcour, J.A. and Hoseney, R.C. 2010. Principles of cereal science and technology. American Association of Cereal Chemists Inc, St. Paul, Minnesota, USA.
2. Karel, K. and Joseph, G.P. 2000. Handbook of cereal science and technology. Marcel Dekker, New York, USA.
3. Kent, N.L. and Evers, A.D. 1994. Kent's technology of cereals: an introduction for students of food science and agriculture. Pergamon Press, Oxford, England.

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