MANGALORE UNIVERSITY

Department of Biosciences

M.Sc. Food Science and Nutrition

FNS 455 FOOD PACKAGING

39 Hr (13× 3 units)

Course outcome:

- Describe the objectives of food packaging and packaging material.
- Classify the different types of packaging material depending on food type.
- Write down the different packaging equipment and machinery.
- Identify the importance of modified atmospheric packaging.

Unit I: Food packaging: Definitions, objectives and functions of packaging and packaging materials. Packaging requirements and selection of packaging materials; Types of packaging materials. Sanitation and hygiene, GMP, GLP.

Unit II: Food packaging systems: Different forms of packaging such as rigid, semi-rigid, flexible forms and different packaging system for (a) dehydrated foods (b) frozen foods (c) dairy products (d) fresh fruits and vegetables (e) meat, poultry and sea foods.

Unit III: Packaging equipment and machinery: Vacuum, CA and MA packaging machine; gas packaging machine; seal and shrink packaging machine; form and fill sealing machine; aseptic packaging systems; bottling machines: carton making machines. Smart packaging systems for bacterial spoilage, water activity.

REFERENCES

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2. Sacharow, S. and Griffin, R.C. 1980. Principles of Foods Packaging (2nd Ed.), Avi, Publication Co. Westport, Connecticut, USA.
3. Rooney, M.L. (1995), Active Food Packaging - Blackie Academic & Professional, Glasgow, UK.
4. Food Packaging Technology Handbook, 2003. NIIR Board, National Institute of Industrial Research,
5. Ahvenainen, R. (Ed.), 2003. Novel Food Packaging Techniques, CRC Press
6. Han, J.H. (Ed.) 2005. Innovations in Food Packaging, Elsevier Academic Press