

COURSE GOALS: This course is designed to give the student an integrated presentation of the scientific and technical aspects of packaging foods. The course content includes: 1) principles of food packaging, 2) functions of packaging, 3) properties of metal, glass, paper and plastic materials and packages, 4) design, fabrication and applications of food packaging, 5) packaging of fresh and processed foods, including fruits and vegetables, dairy foods, beer and wine.

ENTRY LEVEL: This course is open to Food Science and non-Food Science majors. Prerequisites: Chemistry 8B, Biological Sciences IA, and Physics 5B or 7C.

COURSE FORMAT: Lectures (3 hours/week), discussion (1 hour/week) and homeworks. A midterm and a final exam complete the course.

TOPICAL OUTLINE:

1. Packaging functions and definitions
2. Packaging materials - composition and properties
3. Finished packages - components and fabrication
4. Food-package interaction
5. Kinetics of food quality changes in packaged foods
6. Selection of packages for certain food products
7. Package regulations
8. Package waste and recycling
9. Packaging trends

GRADING:

Homeworks - 35%
Midterm - 30%
Final Exam - 35%

TEXT USED: *Food Packaging - Principles and Practice*, Gordon L. Robertson, 1993. Marcel Dekker, Inc., New York, NY, First Edition.

POTENTIAL COURSE OVERLAP: No other course emphasizing food packaging exists at UC Davis.

DATE PREPARED: November 29, 1999

INSTRUCTOR: J. M. Krochta