

Course Syllabus

1. Name of Curriculum

Bachelor of Science (Food Science & Technology), Mahidol University International College

2. Course Code: ICFS 452

Course Title: Food Packaging

3. Number of Credits: 4 (Lectures/Lab) (4-0)

4. Prerequisite(s): ICFS 313, ICFS 316

5. Type of Course: Elective

6. Trimester / Academic Year: Summer Session / 2003-04

7. Course Description

Materials, systems, and applications of food packaging materials and methods; properties, fabrication, and function of metal, glass, paper and plastic packaging. sanitation of packaging materials, forming, filling, joining and enclosure operations and related equipment for packaging systems and equipment; selected topics for food packaging applications including aseptic packaging, food-package interactions, sealing integrity, handling of packages, and modified atmospheric packaging.

8. Course Objectives

After studying in this course, the student will be able to:

- (i) State functions of packaging.
- (ii) Describe the various forms of packaging materials in common use at the present time.
- (iii) Describe the risks associated with potential food contamination.
- (iv) Interpret packaging standards and legislation in food packaging materials.
- (v) Describe some of the recent developments in food packaging materials.
- (vi) Explain the principles and processes involved in aseptic packaging.
- (vii) Discuss the methodologies and economics associated with common types of food packaging.

9. Course Outline

Week				Instructor	
	Lecture/Seminar	Lect	Lab		Total
1	Introduction to Food Packaging	4		4	Mike Johns
2	Functions of packaging	4		4	Mike Johns
3	Proximate Analysis	4		4	Mike Johns
4	Evaluation of Analytical Data	4		4	Mike Johns
5	Food Sampling and Sample Preparation for Chemical Analysis	4		4	Mike Johns
6	Mid term examination				Mike Johns
7	Spectroscopic Methods of Food Analysis	4		4	Mike Johns
8	Basic Principles of Chromatography	4		4	Mike Johns
9	Chromatographic Techniques	4		4	Mike Johns
10	High Performance Liquid Chromatography (HPLC)	4		4	Mike Johns
11	Gas Chromatography (GC)	4		4	Mike Johns
12	Final examination	4		4	
	Total	44		44	

10. Teaching Methods

1. Lecture
2. Self-study
3. Practical exercises

11. Teaching Media

1. PowerPoint presentations
2. Texts and teaching materials

12. Course Achievement

Assessment made from the set forward criteria: -

Grade	%
A	90-100
B+	85-89
B	80-84
C+	75-79
C	70-74
D+	65-69
D	60-64
F	0-59

13. Course Evaluation

Component	%
Attendance/Class participation	10
Quizzes	15
Assignments	15
Midterm	30
Final	30
Total	100

14. References

Food Packaging: Principles and Practice. Gordon L. Robertson. Marcel Dekker. 1993.

15. Instructor

Instructor: Mr. Mike Johns, Room 1409 International College Building

Telephone: Ext. 1404

Email: mljohns27@hotmail.com

16. Course Coordinator

Instructor: Mr. Mike Johns, Room 1409 International College Building

Telephone: Ext. 1404

Email: mljohns27@hotmail.com