

Course Syllabus

1. Name of Curriculum

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

2. Course Code: ICFS 314

Course Title: Food Analysis

3. Number of Credits: 4 (Lectures/Lab) (3-2)

4. Prerequisite(s): ICCH 210

5. Type of Course: Required

6. Trimester / Academic Year: Second Trimester / 2004-05

7. Course Description

Principles of chemical and instrumental methods for the qualitative and quantitative analysis of moisture, protein, carbohydrate, lipids, dietary fiber, minerals and vitamins. Practical exercises in the analysis of major food components utilizing chemical and instrumental methods.

8. Course Objectives

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

- (i) demonstrate a sound theoretical knowledge of the basic principles of analytical chemistry.
- (ii) demonstrate a sound theoretical knowledge of modern analytical methods applicable to the chemical analysis of food.
- (iii) demonstrate an ability to assess the most appropriate analytical procedure required for a particular food analysis problem.
- (iv) demonstrate practical knowledge of selected food analysis techniques.

9. Course Outline

Week					Instructor
	Lecture/Seminar	Lect	Lab	Total	
1	Introduction to Food Analysis	3	2	5	Mike Johns
2	Proximate Analysis	3	2	5	Mike Johns
3	Proximate Analysis	3	2	5	Mike Johns
4	Evaluation of Analytical Data	3	2	5	Mike Johns
5	Food Sampling and Sample Preparation for Chemical Analysis	3	2	5	Mike Johns
6	Mid term				Mike Johns
7	Spectroscopic Methods of Food Analysis	3	2	5	Mike Johns
8	Basic Principles of Chromatography	3	2	5	Mike Johns
9	Chromatographic Techniques	3	2	5	Mike Johns
10	High Performance Liquid Chromatography (HPLC)	3	2	5	Mike Johns
11	Gas Chromatography (GC)	3	2	5	Mike Johns
12	Final				
	Total	30	20	50	

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/Practical reports	25
Midterm	25
Final	25
Total	100

14. References

Food Analysis, Theory and Practice, 3rd. Edition; Yeshajahn Pomeranz, Clifton E. Meloan. Chapman and Hall. 1994.

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