

## Course Syllabus

**1. Name of Curriculum**

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

**2. Course Code:** ICFS 322

**Course Title:** Fruit and Vegetable Technology

**3. Number of Credits:** 4 (Lecture/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**

Raw material handling, storage and preparation; processing and preservation of fruits and vegetables; production of fermented food products from vegetables; application of HACCP to fruit and vegetable processing; post-harvest changes in fruits and vegetables.

**8. Course Objectives**

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

- (i) demonstrate an understanding of the biochemistry and physiology of harvested fruits and vegetables.
- (ii) describe the basic steps involved in the production of processed fruits and vegetables.
- (iii) describe the principles and practices employed to maintain the quality of fruits and vegetables.

## 9. Course Outline

Week				Instructor	
	Lecture/Seminar	Lect	Lab		Total
1	Introduction	4		4	Mike Johns
2	Physiology of fruits and vegetables	4		4	Mike Johns
3	Chemical changes in fruits and vegetables	4		4	Mike Johns
4	Postharvest handling	4		4	Mike Johns
5	Quality evaluation, packing of produce	4		4	Mike Johns
6	Midterm				
7	Non-fermented fruit products	4		4	Mike Johns
8	Alcoholic fruit beverages	4		4	Mike Johns
9	Thermally processed and frozen fruits	4		4	Mike Johns
10	Vegetable processing	4		4	Mike Johns
11	Vegetable processing	4		4	Mike Johns
12	Final exam				
	Total	40		40	

## 10. Teaching Methods

1. Lecture
2. Self-study

## 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
<b>Total</b>	<b>100</b>

## 14. References

Arthey, D. and Ashurst, P.R. 1996. Fruit Processing. Blackie Academic & Professional. Bishopbriggs, Glasgow, England. **Available in library.**

Jangen, W. (Editor). 2002. Fruit & Vegetable Processing: Improving quality. CRC Press. Woodhead Publishing Limited. Cambridge, England. **Available in library.**

Smith, D.S., Cash, J.N., Nip, W.K and Hui, Y.H. 1997. Processing Vegetables: Science and Technology. Technomic Publishing Company Inc., Lancaster, PA.

Ting, S.V. and Rouseff, R.L. 1986. Citrus fruits and their products: Analysis and Technology. Marcel Dekker, Inc., New York

Wills, R.H.H., Lee, T.H., Graham, W.B. and Hall, E.G. 1981. Postharvest: An introduction to the physiology and handling of fruit and vegetables. The AVI Publishing Company, Inc., Westport, Conn.

Kays, S.J. 1991. Postharvest physiology of perishable plant products. An AVI Book, New York.

**15. Instructor**

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

Telephone: Ext. 1404

Email: [mljohns27@hotmail.com](mailto:mljohns27@hotmail.com)

**16. Course Coordinator**

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

Telephone: Ext. 1404

Email: [mljohns27@hotmail.com](mailto:mljohns27@hotmail.com)