



GID 421E – FOOD TECHNOLOGY – Lecture

ITU – Department of Food Engineering
Fall 2003

Syllabus

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Credits: 3

Time: Thursday 14:00-17:00

Room: D 204

Course Description:

This is the capstone course for Food Engineering majors integrating principles of food chemistry, food microbiology, food engineering unit operations, nutrition and sensory evaluation through discussion of food processing operations.

Areas covered include processing of cereals, fruit and vegetables, dairy, and fats and oils. Chemical and biochemical properties of raw materials and their relationship to current processing methods to obtain the desired products will be discussed.

Instructional Objectives:

1. Develop an awareness of current processing methods in the food industry;
2. Understand the concepts and principles of food processing;
3. Develop an ability to integrate knowledge of food chemistry, food microbiology, food engineering unit operations, nutrition and sensory evaluation into food technology.

Evaluation Methods:

There will be three examinations, each worth 100 points. Each test is a combination of multiple choice, completion and short answer questions designed to determine whether or not the student understands the basic concepts of food processing.

The course will be a composite of: Exam 1 and 2 - 60% and Final Exam - 40%.

Participation to the class will be also counted.

Prerequisites: None**Language:** English**Textbook:**

Fellows, P.J. 2000. Food Processing Technology: Principles and Practice. 2nd Ed. CRC Press, Boca Raton, FL.

Lectures materials

Reference Books:

Potter, N.N. 1986. Food Science. 4th ed. Van Nostrand Reinhold Company, NY.

Topics:

Week	Date	Topics	Faculty
1	Sept., 25	Fruits and Vegetables Harvesting and processing of vegetables and fruits Fruit juices	Ö. Evranuz
2	Oct., 2	Milk and Milk Products Dairy product technology (Clarification, separation, homogenization, deaeration, pasteurization, sterilization) Yogurt, cheese, butter & ice cream	M. Kılıç
3	Oct., 9	Cont.	“
4	Oct., 16	Cereals Overview of cereal crops; Wheat quality Flour milling and breadbaking Pasta products and soft wheat products	M.H. Boyacıoğlu
5	Oct., 23	Cont.	“
6	Oct., 30	Meat & Poultry Meat processing, sausages and poultry products	M.H. Boyacıoğlu
7	Nov., 6	Cont. – Exam 1	“
8	Nov., 13	Fats and Oils Sources of fats and oils, production and processing	A. Karaali
9	Nov., 20	Cont.	“
10	Nov., 27	Holiday	
11	Dec., 4	Wine, beer, and non-alcoholic beverage technology	M.H. Boyacıoğlu
12	Dec., 11	Candy and chocolate confectionery	Ö. Evranuz
13	Dec., 18	Coffee and tea technology	M. Kılıç
14	Dec., 25	Starch syrups manufacturing technology – Exam 2	M.H. Boyacıoğlu
		Field trip	M.H. Boyacıoğlu