

## SYLLABUS - CHEMISTRY 80A (Chemistry of Nutrition) -Summer 2010-

This class is dedicated to the memory of the late Professor Tony Fink, who enthusiastically taught this course for many years here at UCSC. (website below)

<http://www.chemistry.ucsc.edu/faculty/Fink/80A-2004/2004index.htm>

**COURSE WEBSITE** <http://people.ucsc.edu/~taj/Chem80A/>

**INSTRUCTOR:** Tyler Johnson, Ph.D.

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**Class Time/Location:** Tu Th F 9AM-11:30AM, Physical Sciences Building, Room 110

### GOALS:

The aim of this course is to give you a general background in the fundamentals of the science of nutrition, sufficient to allow you to make your own critical judgments as far as many nutritional claims are concerned, and to provide the basic facts concerning sound dietary habits to allow you to plan and obtain adequate to optimal nutrition for yourself. This introductory class is open to all students especially those who are pursuing degrees in the medical, nursing or allied health professions as well as those who are simply interested in broadening their knowledge in the areas of basic nutritional science research.

### TOPICS:

- **General introduction to nutrition and current issues**
- **Nutrients -**
  - carbohydrates
  - Lipids, fats
  - Proteins
  - Vitamins
  - Minerals
- **Weight control, dieting**
- **Eating disorders**
- **Nutrition and disease**
- **Food Safety**
- **Vegetarian diets**
- **Alcohol and nutrition**
- **Supplements and optimum sports nutrition**

**PREREQUISITES:** Some familiarity with the language of chemistry e. g. high school chemistry. Some basic understanding of chemistry is necessary so that you can appreciate the underlying processes of why we need certain nutrients and what happens to our food on digestion.

**TEXT:** Contemporary Nutrition, Wardlaw and Smith, 7th edition

**REQUIREMENTS:** Midterm (40%), Final Exam (40%), Diet analysis I & II (20%)

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Tentative Schedule for Chem 80A for - Summer 2010

DATE	Topic	CHP in Wardlaw
7/27	About the Course, Intro to Nutrition, Overview	1
7/29	Healthy Diets ( <b>Diet Analysis</b> )-Due 8/6	2
7/30	PBS Video - Covert Bailey Fit or Fat Energy Balance/ Weight Control	7
8/3	Energy Balance/ Weight Control	7
8/5	Movie - Food Inc. & Questions	3
8/6	The Human Body: A Nutrition Perspective	3
8/10	Carbohydrates, Fiber & Lipids	4, 5
8/12	Lipids and Trans fat	5
8/13	Proteins and Vegetarian diets	6
8/17	Vitamins	8
<b>MIDTERM (Chap 1-7)</b>		
8/19	Vitamins cont. / Water and minerals	8, 9
8/20	Nutrition: Sports/Fitness & Eating disorders (Start <b>Diet Analysis II</b> ) Due 7/26	10,11
8/24	Organic Foods/ Water and Food Safety	13
8/26	Cancer/Nutrition, Alt./Prev. Med. & Anti-Aging <b>Diet Analysis II Due</b>	16
8/27	<b>FINAL (Chap 8-11, 13, 16 Mostly)</b>	
NOTES:	Skip Chapter 12 (Undernutrition Throughout the World) Skip Chapter 14 (Pregnancy and Breastfeeding) Skip Chapter 15 (Infancy through adolescence)	