HBIO 202L – 4 units: Nutrition for Life
Summer 2019

Instructor: Bob Girandola, HBIO Department
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Phone: 213-740-6151
Office hours Tu Wed 12-1

Lecture: M-Th 10-11:50 THH 215
Labs: PED Bldg

Lecture: 8 hours/week

Laboratory: 2 +hour/week

Course Description:

This course will deal with the principles related to proper nutrition for optimal health . The medical problems associated with obesity and the relationship between diet, exercise and health will be explored. Class will focus on developing an understanding of Nutrition, especially as it pertains to good health and prevention of certain diseases. Laboratory experiences will help students gain knowledge of appropriate body stature and body composition and the role that exercise plays in maintaining caloric balance.

Required Text:

Nutrition & You: Core Concepts for Good Health. Joan S. Blake, Pearson Education, Inc. 2013

I. Objectives:

A. To understand the process by which the body digests and assimilates the micronutrients contained in food in order to support normal body functions.
B. To apply knowledge of energy intake and energy expenditure to make food choices that promote maximal health and exercise performance.
C. To give students opportunity with lab and lecture to be able to take measures of height, weight, BMI and body composition.
D. To give students the knowledge of Nutrition including Macro and Micronutrients.
E. To give students an understanding of the role of diet in health and longevity.

II. Class Schedule:

Lectures	Topic
1	Overweight and underweight concepts. Body composition vs BMI
2	Concepts of Caloric balance

3	Calorie equivalents of activity and foods. Fad diets. How to gain or lose weight? Eating disorders. Treatment of obesity using drugs and surgical procedures.
4	National and Global obesity statistics.
5	Obesity and diseases
	First Mid-term Exam
6	Myths and realities in weight control, separating fact from fiction.
7	Hunger and satiety; How and why we eat as we do. Food addiction.
8	Digestion and absorption, anatomy and physiology of the GI Tract. Disorders of the GI tract including oral health, ulcers, gall bladder disease and other intestinal problems such as Celiac disease and Irritable bowel syndrome. How to maintain GUT health.
9	Caloric nutrients, CHO: Simple vs Complex The "Sugar" syndrome.
10	Caloric nutrients, cont. Glycemic Index
	Second Mid-term Exam
11.	Caloric nutrients, con. Fats, Saturated vs Unsaturated. Fats and Cholesterol, Animal vs non animal fats, Trans Fat!
11.	Cardiovascular disease: Diet, lifestyle and genetics. Proteins.
12	Caloric nutrients, cont. Proteins. Functions, Amino acids, essential vs non-essential. Protein requirements.
13	Micronutrients: Vitamins and minerals. Fat and water soluble vitamins and their role in health. Macro and trace minerals and their role in health. Diseases related to vitamin/mineral deficiency.
14	Food safety, food borne illnesses. Nutrition through the life cycle, infancy to old age and special populations. Choosing the right diet using the Food Pyramid and My Plate
15	Learn to eat healthy!

FINAL EXAM

III. Grading, Grading Scale, and Make-up Policy:

25% 1st Midterm
25% 2nd Midterm
25% Final Exam
25% Laboratory grade

Grading Scale: Each exam will be curved and assigned a letter grade based upon the following criteria:

Average score = C
Average score + 1 Standard Deviation (SD) = B
Average score + 2 SD = A
Average score – 1 SD = D
Average score – 2 SD = F

Make-up Policy: IF a student has a legitimate excuse for missing the mid-term or final exam, a make-up exam in ESSAY format will be given at a mutual date determined by the instructor and student.

IV. Tentative Lecture Schedule:

Week of	Lecture Topic	Reading
May 15,16	Concepts of Overweight and Underweight: height-weight scales, body mass index, body composition, and methods of assessing body composition	Ch. 20
May 22,23	Concepts of Caloric Balance	Ch. 20,22
May 20 23	Concepts of Caloric Balance: caloric expenditure at rest (RMR), caloric equivalents of activity, caloric equivalents of foods and beverages, and methods of measuring energy expenditure. Fad diets. Eating disorders. Treatment of obesity using drugs and surgery.	Ch. 20,21,22
	National and Global obesity, statistics	Data from CDC, WHO
May 24	Obesity and Diseases: Cancer, Diabetes, Gout, others. **May 27 Memorial Day is USC holiday: First Mid Term Exam May 29**	Ch. 9,23, CDC, etc.
May30	Myths and realities in Weight Control and healthy eating: Separating fact from fiction.	Ch.3,4
June 3	Hunger and Satiety: role of the hypothalamus, physiological cues, psychosocial cues, and fat-cell morphology and their role in hunger-satiety. Food addiction.	Ch. 1,2
June 4,5	Digestion and Absorption, anatomy and physiology of the GI Tract. Disorders of the GI tract including oral health, ulcers, gall bladder disease and other intestinal diseases such as Celiac disease and Irritable bowel syndrome. How to maintain GUT health.	Ch 6
June 6,10	The Caloric Nutrients, CHO: Simple vs. Complex. The "Sugar" syndrome. Are there good and "bad" carbs? Do carbs make us fat?	Ch. 7,8
June 11	The Caloric Nutrients, cont., CHO, Understanding the Glycemic Index and caloric balance. Fats,	Ch. 8,10
June 11,12	The Caloric Nutrients, cont., Fats, Saturated vs. Unsaturated Fats, Cholesterol, Animal vs. non-Animal fats, Trans fat. Cardiovascular Disease: Diet, lifestyle and genetics.	Ch. 10,11,12
June 13	The Caloric Nutrients, cont., Proteins, Functions, Amino acid list. Complete and incomplete proteins. RDA values. Nitrogen balance. Animal vs. non-animal protein. **Second Mid Term Exam June 12**	Ch. 13,14,15
June 17	Micronutrients: Vitamins and Minerals: Fat and water-soluble vitamins and their role in health. Macro and trace minerals and their role in health. Diseases related to vitamin/mineral deficiency.	Ch. 16,17
June ,18-24	Food safety, food borne illnesses. Nutrition through the life cycle, infancy to old age and special populations (athletes). Choosing the right diet using the Food Pyramid and My Plate. Learning to eat healthy.	Ch.1, 2,25,27, 29

	FINAL EXAM Tuesday June 25	

*** Students will NOT be allowed to take an exam if they arrive more than 20 minutes past the hour! First and second midterm exam dates are approximate.

V. Laboratory Component

Lab Director: Emi Embler, Ph.D.
Email: eembler@usc.edu

Lab Instructor: Bara Floyd, M.A.
Email: gbfloyd@usc.edu

Laboratories will be one 2-hour/week for the semester.

VI. Academic Accommodations:

Any student requesting academic accommodations based on a disability are required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (the instructor) as early in the semester as possible. DSP is located in Student Union (STU) 301 and is open 8:30-5:00pm Monday – Friday. The phone number for DSP is 213) 740-0776.

VII. Academic Integrity:

Students who violate University standards of academic integrity are subject to disciplinary sanctions, including failure in the course and suspension from the University. Since dishonesty in any form harms the individual, other students and the University, academic integrity policies will be strictly enforced. I expect you will familiarize yourself with the Academic Integrity guidelines found in the current SCampus.

VIII. Academic Integrity Violations:

- Academic dishonesty/misconduct (plagiarism, cheating, unauthorized collaboration, etc.) will not be tolerated. All academic integrity violations will result in a grade sanction and will be reported to the Office for Student Judicial Affairs. It is your responsibility to "reasonably" protect your own work from the plagiarism of others.
- If plagiarism is detected on a group project, all members of the group will be held responsible.
- You are expected to be familiar with the Academic Integrity guidelines found in the current SCampus (student guidebook). An electronic version is available at http://usc.edu/scampus.

IX. Disruptive and Threatening Student Behavior:

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office of Student Judicial Affairs for disciplinary action.