

**University of Southern California – Human Biology**  
**Human Biology-202L – Principles of Nutrition and Exercise (2 Units)**  
**Summer 2016**

**Instructor:** Bob Girandola, Ed.D.

Office Hours: TBA in PED 109 :

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**Lecture:** MW 10-11:50: GFS 108

**Laboratory:** To be arranged (PED B15c) (labs are set up by individual appointments\*)

**Course Description:**

This course will deal with the principles related to body composition and proper nutrition for optimal health and sports performance. The medical problems associated with obesity and the relationship between diet, exercise and health will be explored. Evaluation of individual caloric intake will be provided. Labs on body composition and resting metabolic rate will be performed.

**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.

**II. Class Schedule:**

<b>Week</b>	<b>Topic</b>
1	Overweight and underweight concepts
1	Body composition vs. BMI
2	Concepts of caloric balance
2	Caloric equivalents
5	Caloric balance and weight control
3	Myths and realities in weight control
3	Hunger and satiety; treating obesity
3	<b>MID-TERM EXAM</b>
4	Cardiovascular disease
4	Digestion and absorption
5	Caloric nutrients
5	Caloric nutrients
6	Vitamins and minerals
6	Vitamins and minerals
6	Applied nutrition and food safety

## FINAL EXAM

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

35% Midterm  
35% Final  
30% Lab/Dietary Analysis

**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 18	Concepts of Overweight and Underweight: height-weight scales, body mass index, body composition, obesity vs. overweight, and methods of assessing body composition	Ch. 20,21,22
May 23	Concepts of Overweight and Underweight: height-weight scales, body mass index, body composition, obesity vs. overweight, and methods of assessing body composition. <b>Mon Sept 1 is Labor Day holiday.</b>	Ch. 20,22
May 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	Ch. 20,22
May 25	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	Ch. 20,22
May 25	Caloric Balance and Weight Control: weight loss and gain methods, fluid balance, popular methodologies (fact or fiction?), prevalence of obesity in USA and internationally, and possible solutions and predictions	Ch. 20,22
May 25	Caloric Balance and Weight Control: weight loss and gain methods, fluid balance, popular methodologies (fact or fiction?), prevalence of obesity in USA and internationally, and possible solutions and predictions.	Ch. 20-22,2,3
June 1 & 6	Hunger and Satiety: role of the hypothalamus, physiological cues, psycho-social cues, and fat-cell morphology and their role in hunger-satiety.	Ch. 20-22,1-3
June 8	<b>MIDTERM EXAM will be this day.</b>	

June 13	Cardiovascular Disease: definitions, causes of the disease, predisposing factors (and risk factors), and modification and lifestyle	Ch 12
June 1	Digestion and Absorption: anatomy of the gastrointestinal tract, digestion and absorption of CHO, fat, and protein, and common diseases related to the GI tract	Ch. 6
June 13	The Caloric Nutrients (CHO, Fat, Protein: carbohydrates, fats, and proteins	Ch. 7,8,10,11,13,14
June 15	The Caloric Nutrients (CHO, Fat, Protein: carbohydrates, fats, and proteins	Ch. 7,8,10,11,13,14
Nov 17	Vitamins and Minerals: water soluble vitamins, fat soluble vitamins, major minerals, and trace minerals	Ch. 16,17
June 20	Vitamins and Minerals: water soluble vitamins, fat soluble vitamins, major minerals, and trace minerals. <b>Thanksgiving holiday is Nov 25-27.</b>	Ch. 16,17
June 22	Applied Nutrition: the food pyramid, older methods of food selections, the politics of nutrition, and food safety. Classes end Dec 4.	Ch.1, 2
	<b>FINAL EXAM</b> on Monday June 27	

\*\*\* 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](mailto:eembler@usc.edu)

**Lab Instructor:** Bara Floyd, M.A.  
Email: [gbfloyd@usc.edu](mailto:gbfloyd@usc.edu)

**Lab Days/Times:** to be arranged

Laboratories to be completed by individual appointment.

1. Hydrostatic weighing evaluation of body composition
2. Resting metabolic rate

## **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.