

USC Dornsife
College of
Letters, Arts
and Sciences

HBIO 202L – Nutrition for Life

4 units

Spring 2022

Lecture: MWF 10:00 AM - 10:50 AM

Location: SLH 100

Labs:

Tuesday:

8:00 AM - 9:50 AM

Wednesday:

12:00PM – 1:50 PM, 2:00 PM – 3:50 PM

Thursday:

8:00 AM - 9:50 AM , 10:00 AM – 11:50 AM, 2:00 PM –
3:50 PM

Location: PED B16

Instructor: Robert Girandola, Ed.D.

Office: PED 109

Office Hours: Tuesday , Wednesday, 11:00 AM –12:00 PM

Contact Info: girandola@usc.edu, (213) 740-6151

Laboratory Director: Anh-Khoi Nguyen, Ph.D.

Office: PED 109

Office Hours: by appointment

Contact Info: agnguyen@usc.edu

Laboratory Instructor: Alexis Camacho, M.S.

Office: PED 109

Office Hours: TBA

Contact Info: ascamach@usc.edu

Laboratory Instructor: Bara Floyd, M.A.

Office: PED 109

Office Hours: TBA

Contact Info: gbfloyd@usc.edu

Laboratory Instructor: Helaine Lopes, Ph.D.

Office: PED 109

Office Hours: TBA

Contact Info: lopes@usc.edu,

For Spring 2022, the course is anticipated to be fully in person.

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:

Week	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
- *Optional extra credit – JEP assignment = 5%

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
1 Jan 10	Concepts of Overweight and Underweight: height-weight scales, body mass index, body composition, and methods of assessing body composition	Ch. 1, 10
2 Jan 17	Concepts of Caloric Balance (Monday, MLK Holiday)	Ch. 10
3 Jan 24	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. 1, 10
4 Jan 31	National and Global obesity, statistics	Data from CDC, WHO

5 Feb 7	Obesity and Diseases: Cancer, Diabetes, Gout, others.	Ch.4 (p 121) Ch 5 (p167), CDC, etc.
6 Feb 14	Myths and realities in Weight Control and healthy eating: Separating fact from fiction. First Mid Term Exam this week	PP slides
7 Feb 21	Hunger and Satiety: role of the hypothalamus, physiological cues, psychosocial cues, and fat-cell morphology and their role in hunger-satiety. Food addiction. (Monday, Presidents Day)	Ch. 1
8 Feb 28	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 3
9 March 7	The Caloric Nutrients, CHO: Simple vs. Complex. The “Sugar” syndrome. Are there good and “bad” carbs? Do carbs make us fat?	Ch. 4
	Spring Break, March 13-20	
11March21	The Caloric Nutrients, cont., CHO, Understanding the Glycemic Index and caloric balance. Fats,	Ch. 4,5
12 March 28	The Caloric Nutrients, cont., Fats, Saturated vs. Unsaturated Fats, Cholesterol, Animal vs. non-Animal fats, Trans fat. Cardiovascular Disease: Diet, lifestyle and genetics. Second Mid term Exam this week	Ch. 5
13 April 4	The Caloric Nutrients, cont., Proteins, Functions, Amino acid list. Complete and incomplete proteins. RDA values. Nitrogen balance. Animal vs. non-animal protein.	Ch. 6
14 April 11-18	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. 7,8
April 20 - 29	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.12,13
	FINAL EXAM Monday, May 9, 8:00 AM – 10:00 AM	

*** 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.

Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on [Research and Scholarship Misconduct](#).

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University’s educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call
studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086
eeotix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298
usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) - (213) 740-0776

osas.usc.edu

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - (213) 821-4710

campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323) 442-0382 (HSC)

ombuds.usc.edu

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - (323) 442-3340 or otfp@med.usc.edu

chan.usc.edu/otfp

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.