

USC Dornsife

Dana and David Dornsife
College of Letters, Arts
and Sciences

HBIO-202L – Nutrition for Life

Units: 4 units

Spring 2021, MWF 10:00 AM -10:50 AM

All Labs will be ONLINE only.

Location: MHP 101

Instructor: Bob Girandola, Ed.D.

Office Hours: Wed 8:00 AM – 9:00 AM; Thurs 11:00 AM – 12:00 PM

Contact Info: Telephone: (213) 740-6151

Email: girandol@usc.edu

Lecture: 3 hours/week

Laboratory: 2 hours/week

T: 8:00 AM – 9:50 AM

W: 12:00 PM – 1:50 PM, 2:00 PM – 3:50 PM

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

HBIO 202L is being offered as a HYBRID course during the Spring 2021 semester. That means the course will be taught simultaneously in class and online. However, students do not have to attend live to take the class, it is an option. All labs are online. HOWEVER, due to ongoing COVID problems the Spring 2021 semester will begin ONLINE for all students.

There will be no Spring Break during the 2021 Semester, There will be “Wellness” days, no classes on these days. They include the following: March 12, April 7 and April 30.

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%	1 st Midterm
25%	2 nd 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
1 Jan 15	Concepts of Overweight and Underweight: height-weight scales, body mass index, body composition, and methods of assessing body composition	Ch. 20
1 Jan 18	Concepts of Caloric Balance Jan 18 is MLK day, university holiday	Ch. 20,22
2 Jan 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. Fad diets. Eating disorders. Treatment of obesity using drugs and surgery.	Ch. 20,21,22
3 Feb 1	National and Global obesity,	Data from CDC, WHO
4 Feb 8	Obesity and Diseases: Cancer, Diabetes, Gout, others.	Ch. 9,23, CDC, etc.
5 Feb 15	Myths and realities in Weight Control and healthy eating: Separating fact from fiction. Presidents Day Holiday on Monday Feb 15	Ch.3,4
6 Feb 22	Hunger and Satiety: role of the hypothalamus, physiological cues, psychosocial cues, and fat-cell morphology and their role in hunger-satiety. Food addiction. First Mid Term Exam this week	Ch. 1,2
7 Mar 1	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
8 Mar 8	The Caloric Nutrients, CHO: Simple vs. Complex. The “Sugar” syndrome. Are there good and “bad” carbs? Do carbs make us fat?	Ch. 7,8
9 Mar 15	The Caloric Nutrients, cont., CHO, Understanding the Glycemic Index and caloric balance. Fats, Saturated vs. Unsaturated Fats, Cholesterol,	Ch. 8,10

	Animal vs. Non Animal fats, Trans fat, Cardiovascular Disease: Diet, Lifestyle and Genetics	
10 Mar 22		Ch. 10,11,12
11 Mar 29	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 will most likely be this week/	Ch. 13,14,15
12 Apr 5	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
13-16 Apr 12, 19 26	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. Classes end April 26	Ch.1, 2,25,27, 29
	FINAL EXAM Monday May 10 8-10	

*** 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: Anh-Khoi Nguyen, Ph.D. (agnguyen@usc.edu)

Lab Instructors:

Alexis Camacho, M.S.; ascamach@usc.edu

Bara Floyd, M.S.; gbfloyd@usc.edu

Helaine Lopes, Ph.D., ATC; lopes@usc.edu

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

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 scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Student Health Counseling Services - (213) 740-7711 – 24/7 on call

engemannshc.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) 740-4900 – 24/7 on call

engemannshc.usc.edu/rsvp

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

Office of Equity and Diversity (OED) / Title IX - (213) 740-5086

equity.usc.edu, titleix.usc.edu

Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations.

Bias Assessment Response and Support - (213) 740-2421

studentaffairs.usc.edu/bias-assessment-response-support

Avenue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation and response.

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Support and Advocacy - (213) 821-4710

studentaffairs.usc.edu/ssa

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

Diversity at USC - (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.