

USC Dornsife
College of Letters,
Arts and Sciences

**HBIO360 – Nutrition and Disease (4 units)
Fall 2021**

Lectures: Tue/Thu 3:30-4:50 pm

Location: lecture online

Instructor: Gioia Polidori, PhD

Office: AHF B40

Office hours: 8:50-9:20 and 10:50-12:20 pm T/Th

Office hours will be held ONLINE

A google doc will be used to sign up for office hours

Email : gpolidor@usc.edu

Telephone: 213.740.3337

Lab sections:

38542R Tuesday 12:00-1:50 pm

38543R Monday 10:00-11:50 am

38544R Thursday 5:00- 6:50 pm

38545R Friday 10:00-11:50 am

Instructors:

Alexis Camacho

Shannon Cross

Daniel Aslan

Course Description

Principles of diet therapy for the prevention and treatment of human disease.

Prerequisite: BISC 220L

Course Modality

This course is offered in person and lectures will also be offered with virtual synchronous modality (i.e. students can attend lectures online at the scheduled time). Labs will be offered in person only.

Learning Objectives

- Identify, locate, and describe the structure/function of major organ systems of the human body
- Illustrate the relationship between nutritional imbalances and disease
- Correlate molecular, cytological and histological changes with manifestations of selected human diseases
- Compile relevant sources of scientific evidence to solve case studies and effectively present to peers selected topics in human disease
- Evaluate how nutritional concepts may be used for the resolution of sociocultural issues

- Determine and discuss nutrient needs for diverse populations taking into account the various dimensions of human diversity such as age, disability, ethnicity, ancestry, gender, language, religion, social status and body diversity.

I. Text Required

Nutrition Therapy & Pathophysiology; Nelms M, Sucher KP, Lacey K, Roth SL (eds). Wadsworth Cengage Learning. 3rd Edition.

II. Description and Assessment of Assignments

- Class material will be evaluated via quizzes, exams and case studies.
- **Quizzes** will be given during lectures and will be based on the material presented on the same day.
- **Case studies:** Case studies will be completed throughout the semester and will focus on the pathophysiology and nutritional requirements in different diseases. Students will be guided to perform literature searches to discover and develop their own solutions to real case problems related to human disease and placed within sociocultural contexts. Students will work on case studies in groups of 3-5 and each group will submit the answers at the end of class.

III. Grading Breakdown

Assignment	Points	% of Grade
Midterm 1	250	25
Midterm 2	250	25
Final Exam	300	30
Case Studies	150	15
Quizzes	50	5
TOTAL	1000	100
JEP (Extra Credit)	25	2.5

IV. Additional Policies

- The grading scale is based on the traditional scale as follows:

	A (≥93%)	A- (≥90%)
B+ (≥87%)	B (≥83%)	B- (≥80%)
C+ (≥77%)	C (≥73%)	C- (≥70%)
D+ (≥67%)	D (≥63%)	D- (≥60%)
F (≤59.9%)		

- A midterm exam can be taken after the specified date **ONLY** if the student has a **documented** medical excuse.
- A request to take a make-up exam must be accompanied by evidence of necessity (ie: letter from a doctor, interview email...) and must be made before the date of the scheduled exam.

- Lecture slides will be posted on blackboard. Class notes and textbook information will form the basis of the material that will be on the exams. If you attend class regularly, you will be updated on the status of lecture notes and course material/announcements.
- Case Studies: Attendance to case studies is mandatory. Students should contact the lab instructor via email if they have to miss a case study. If a student has to miss a case study because of medical reason, interviews, or for any other reasonable excuse, they may be allowed to submit the work from home. If the student misses a case study without a reasonable excuse there will be a 20% penalty (first offense) 40% penalty (second offense) and 60% penalty (third offense). Students who arrive more than 15 minutes late on case study days will be considered absent for the case study.
- Late Work Policy: Case studies are due at the end of class period. No late work will be accepted unless the student receives prior approval from the course instructor.

V. Tentative Lecture Schedule

Date	Lecture Topic	Nelms	Case Study
Aug 24	Introduction		Intro
Aug 26	Nutrition Care Process		
Aug 31	Nutrition Assessment	2	1. Dietary Assessment
Sept 2	Nutrition Intervention	3	
Sept 7	Enteral & Parenteral Nutrition	4	2. Dietary intervention
Sept 9	Energy Balance I	5	
Sept 14	Energy Balance II	5	3. Obesity
Sept 16	Pathophysiology of the Cardiovascular System I	12	
Sept 21	Pathophysiology of the Cardiovascular System II	12	4. Myocardial Infarction
Sept 23	Pathophysiology of the Cardiovascular System III	12	
Sept 28	Review		5. hypertension
Sept 30	Midterm I		
Oct 5	Pathophysiology of the Upper GI tract I	14	6. Peptic Ulcer Disease
Oct 7	Pathophysiology of the Upper GI tract II	14	
Oct 12	Pathophysiology of the Lower GI tract I	15	7. Celiac Disease
Oct 14	Pathophysiology of the Lower GI tract II	15	
Oct 19	Pathophysiology of the Liver & Gallbladder I	16	8. Hepatitis C
Oct 21	Pathophysiology of the Liver & Gallbladder II	16	
Oct 26	Diabetes I	17	9. T1DM
Oct 28	Diabetes II	17	
Nov 2	Review		10. T2DM
Nov 4	Midterm II		
Nov 9	Pathophysiology of the Hematological System I	18	11. Anemia
Nov 11	Pathophysiology of the Hematological System II	18	
Nov 16	Cancer I	19	No lab

Nov 18	Cancer II	19	
Nov 23	Pathophysiology of the Musculoskeletal System I	22	12. Osteoporosis
Nov 30	Pathophysiology of the Musculoskeletal System II	22	
Dec 2	Review	25	
	Final Exam (see schedule of classes)	25	

VI. Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

VII. 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.

VIII. Academic Integrity Violations

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.

IX. Disruptive and Threatening Behavior

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

X. 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.