

USC Dornsife
College of Letters,
Arts and Sciences

HBIO360 – Nutrition and Disease (4 units)

Fall 2022

Lecture: Tuesday and Thursday 3:30-4:50 pm

Lecture Location: ONLINE

Instructor: Gioia Polidori, PhD

Office: AHF B40

Office Hours: Tuesday 4:30-6:30pm and Thursday 10:30-12:30pm

Office Hours Location: zoom

Contact Info

Email : gpolidor@usc.edu

Telephone: 213.740.3337

Laboratory sections:

38542R: Tuesday 5:00-6:50 pm

38543R: Monday 10:00-11:50 am

38544R: Thursday 5:00-6:50 pm

38545R: Friday 10:00-11:50 am

Lab instructors: Lisa Lê and Alexis Camacho

Lab Location: PED B7

Course Description

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

Prerequisite: BISC 220L

I. Description of Teaching Modality

- Lecture material will be delivered with:
 - asynchronous video lectures (under one hour in total and available prior to the module)
 - online activities (under 30 minutes on Tuesday and on Thursday)
 - online lecture segments (under 30 minutes on Tuesday and on Thursday)
- All lectures and activities will be held online.
- Laboratories will be held in person.

II. 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
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III. Text Required

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

IV. Description and Assessment of Assignments

- Class material will be evaluated via quizzes, exams and case studies.
- **Quizzes** will be given at the end of each online module and will be due by the end of the week.
- **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.

V. 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

VI. 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 course 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, he/she 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 that 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.

VII. Tentative Lecture Schedule

Date	Lecture Topic	Nelms	Case Study
Aug 23	Module 1: Nutrition Care Process	2,3	Intro
Aug 25			
Aug 30	Module 2: Nutrition Intervention	4,5	1. Dietary Assessment
Sep 01			
Sep 06	Module 3: Energy Balance	12	2. Dietary Intervention
Sep 08			
Sep 13	Module 4: Diabetes	17	3. T1DM
Sep 15			
Sep 20	Review Midterm I	17	4. Pancreatitis
Sep 22			
Sep 27	Module 5: Pathophysiology of Liver and Gallbladder		5. Hepatitis
Sep 29			
Oct 4	Module 6: Pathophysiology of the Upper GI tract	14	6. GERD
Oct 6			
Oct 11	Lipoproteins	notes	7. Celiac Disease
Oct 18	Module 7: Pathophysiology of the Lower GI tract	15	8. Obesity
Oct 20			
Oct 25	Review Midterm II		9. Hypertension
Oct 27			
Nov 1	Module 8: Pathophysiology of the Cardiovascular System I	13	10. Atherosclerosis
Nov 3			

Nov 8	Module 9: Pathophysiology of the Cardiovascular System II	19	11. Osteoporosis
Nov 10			
Nov 15	Module 10: Pathophysiology of the Hematological System	18	12. Anemia
Nov 17			
Nov 22	Module 11: Pathophysiology of the Musculoskeletal System		No Lab on TG week
Nov 29	Module 12: Cancer & Review	23	13. Cancer
Dec 1			
Dec 3-6	Study Days		
	Final Exam (see schedule of classes)		

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 Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://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.