

**USC Dornsife**  
College of Letters,  
Arts and Sciences

**HBIO360 – Nutrition and Disease (4 units)**  
**Fall 2023**

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

**Location:** ZHS 252

**Instructor:** Gioia Polidori, PhD

**Office:** AHF B40

**Office hours:** 2:00-3:30 T/Th in AHF 251

**Email :** [gpolidor@usc.edu](mailto:gpolidor@usc.edu)

**Telephone:** 213.740.3337

**Lab sections:**

38542R Tuesday 9:00-10:50 pm

38543R Monday 10:00-11:50 am

38544R Thursday 9:00-10:50 am

38545R Friday 10:00-11:50 am

38546R Thursday 5:00- 6:50pm

**Instructors:**

Lisa Le: [lelisa@usc.edu](mailto:lelisa@usc.edu)

Charles Crawford: [charles.crawford@usc.edu](mailto:charles.crawford@usc.edu)

**Course Description**

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

*Prerequisite:* BISC 220L

**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. 3<sup>rd</sup> 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	250	25
Case Studies	200	20
Quizzes	50	5
<b>TOTAL</b>	<b>1000</b>	<b>100</b>
JEP (Extra Credit)	25	2.5

### IV. Additional Policies

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

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

- A midterm exam can be taken after the specified date **only** if the student has a documented 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. Case studies are completed in class with the team. If a student has to miss a case study because of medical reason, interviews, or for any other reasonable excuse, they need to reach out to the instructor ASAP. 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.
- A maximum of 2 case studies can be made up. If a student has to miss a case study, they must communicate with the instructor ahead of time. In that case they can either join a different lab section (the same week) or alternatively they can complete a different case study on their own at the end of the semester.

### V.Tentative Lecture Schedule

<b>Date</b>	<b>Lecture Topic</b>	<b>Nelms</b>	<b>Case Study</b>
Aug 22	Introduction		Intro
Aug 24	Nutrition Care Process		
Aug 29	Nutrition Assessment	2	1. Dietary Assessment
Aug 31	Nutrition Intervention	3	
Sept 5	Enteral & Parenteral Nutrition	4	2. Dietary intervention
Sept 7	Energy Balance I	5	
Sept 12	Energy Balance II	5	3. Obesity
Sept 14	Pathophysiology of the Cardiovascular System I	12	
Sept 19	Pathophysiology of the Cardiovascular System II	12	4. Myocardial Infarction
Sept 21	Pathophysiology of the Cardiovascular System III	12	
Sept 26	Review		5. Hypertension
<b>Sept 28</b>	<b>Midterm I</b>		
Oct 3	Pathophysiology of the Upper GI tract I	14	6. GERD
Oct 5	Pathophysiology of the Upper GI tract II	14	
Oct 10	Pathophysiology of the Lower GI tract I	15	7. Pancreatitis
Oct 12	Pathophysiology of the Lower GI tract II	15	
Oct 17	Diabetes I	17	8. Celiac Disease
Oct 19	Diabetes II	17	
Oct 24	Pathophysiology of the Liver & Gallbladder I	16	9. T1DM
Oct 26	Pathophysiology of the Liver & Gallbladder II	16	
Oct 31	Review		10. Hepatitis
<b>Nov 2</b>	<b>Midterm II</b>		
Nov 7	Pathophysiology of the Hematological System I	18	11. Osteoporosis
Nov 9	Pathophysiology of the Hematological System II	18	
Nov 14	Pathophysiology of the Musculoskeletal System I	19	12. Anemia

Nov 16	Pathophysiology of the Musculoskeletal System II	19	
Nov 21	Cancer I	22	No Lab on TG week
Nov 28	Cancer II	22	13. Cancer
Nov 30	<b>Review</b>	25	
	<b>Final Exam (see schedule of classes)</b>	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* [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](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](http://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](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](http://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](http://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](http://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](http://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](http://equity.usc.edu), [titleix.usc.edu](http://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](http://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](http://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](http://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](http://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](https://dps.usc.edu), [emergency.usc.edu](https://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](https://dps.usc.edu)

Non-emergency assistance or information.