

HP 320 The Biological and Behavioral Basis of Disease

Drs. Jennifer Rafeedie, Sheela Rao

TA:

Thursdays 3:30-6:30pm

Location: Social Science Bldg B2

Office hours after class and by appointment

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TA: Artur Galimov galimov@usc.edu

Course Prerequisites:

The prerequisites are BISC 220L or BISC 221 L

Required Textbooks:

1. Memmler's The Human Body in Health and Disease. 13th edition. Authors Barbara Janson Cohen, Kerry L. Hull Publisher: Wolters Kluwer. ISBN 978-1-4511-9280-3.
2. Health Psychology. 10th Edition. Shelley E. Taylor. Publisher: McGraw-Hill Education. ISBN 978-1-259-87047-7.

Course description

This course covers the basics of the structure and function of major organ systems of the human body in health and disease. Moreover, the biopsychosocial model will be incorporated to highlight the role of behavior in health maintenance and disease prevention. The course is geared towards any students who are interested in learning more about how the human body works, how disease develops, and how mind-body connections can alleviate the progression of a disease process.

Course Objectives

At the end of the course, the student will be able to:

- identify, define, discuss and explain the basic anatomy and pathophysiology of the systems of the human body highlighted in this course
- extrapolate the biopsychosocial model to disease processes introduced
- explore holistic treatment approaches with an integrated understanding of the biological and psychological derangements underlying a disease process

Course Structure

Lectures: Lectures will cover the assigned textbook chapters, and may include more detailed material not covered in the textbook. Students are responsible for all topics covered in the textbook and for all the health issues discussed during the lectures, *even*

if they are not covered in the textbook. Slides from each lecture, in .pdf format with designated areas for note taking, will be posted on Blackboard (BB) prior to the day's lecture to give students enough time to prepare for in-class activities.

Readings: You are required to study the assigned chapter readings and their corresponding lecture slides, including the assigned topic(s) of the day as stated in the course calendar, **BEFORE CLASS**, so you can participate in a meaningful discussion about the topic(s) covered that day, and to answer the questions posed in the slides and during the lecture.

In class activities: Activities are planned for individuals and small groups during class to engage you in the course content and illustrate the higher level objectives. You are expected to participate in these activities and submit work done during class to TA prior to class dismissal for that date.

USC Blackboard: The syllabus, announcements, lecture slides in pdf format, online homework assignments, and grades will be posted on Blackboard (BB). Please make sure you know how to log into your BB account, and navigate the BB site. If you have problems with BB, please contact your TA for assistance. Please check BB frequently to ensure that you are kept updated: blackboard.usc.edu

Date	Topic	Homework Due	Reading
Thursday January 11, 2018 Day 1	<p>Introductions- Course Overview</p> <p>Biopsychosocial Model and Health Psychology JR</p> <p>Homeostasis</p> <p>Chemistry of the Human Body</p> <p>Cells and their Functions</p>	None	<p>Chapter 1, Taylor Wade & Halligan article</p> <p>Chapters 1-3 Memmler</p>
January 18, 2018 Day 2	<p>Introduction to Health Behaviors Health Belief Models JR</p>	HW 1- Connecting Contagion with Health Practices, Explanatory	Chapter 3 , Taylor

	<p>Set a Health Habit Goal in Small Group Activity</p> <p>Disease Categories</p> <p>Disease Causes</p> <p>Hosts vs. Pathogen</p> <p>Innate/Adaptive Immunity</p>	Models	Chapter 5, 16-17 Memmler
January 25, 2018 Day 3	<p>Genetics and Epigenetics</p> <p>Embryology and its Implications</p> <p>Cognitive Behavioral Approaches to Behavior Change JR</p>	<p>HW 2- Explore traits and types of inheritance</p> <p>HW 3-Set a Personal Behavioral Goal</p>	Learngenetics.utah.edu website on Bb CH 25 Memmler, readings on Bb
February 1, 2018 Day 4	<p>Exam 1</p> <p>Lecture after exam</p> <p>The Nervous System</p> <p>Check in on goal</p>		Chapters 9-10 Memmler
February 8, 2018 Day 5	<p>Stress and Coping JR</p> <p>Cardiac Health and Disease, Inflammation</p> <p>Check in on goal</p>	HW 4- The Human Heart and Physics, Inflammation	<p>Chapter 6, Taylor</p> <p>Chapter 13, Taylor</p> <p>Chapter 14-15 Memmler</p>
February 15, 2018 Day 6	<p>Toxic Stress JR, SR</p> <p>Substance use</p>	HW 5- ACES and the resilience scale	Chapter 5, Taylor Shonkoff article

	Check in on goal		
February 22, 2018 Day 7	Exam 2 Lecture after Exam 2 TBA		
March 1, 2018 Day 8	Coping and Resilience, JR Nutrition and Malnutrition- Wasting and Obesity Obesity as an inflammatory State Check in on goal	HW 6-Calculating Caloric Needs and Recommended Daily Allowances	Chapter 7, Taylor Chapters 19-20 Memmler
March 8, 2018 Day 9	Inflammation Iatrogenic Causes- Case Study of One Night in the City Mood Disorders/ Personality Disorders Check in on goal	HW 7- Crack the Case	Chapter 17 Memmler
March 15, 2018	Spring Recess	NO CLASS	
March 22, 2018 Day 10	Diabetes, Epidemic of the Century Check in on goal	Essay Due- Case Study Illustrating the BPS model	Chapter 12, Memmler Other readings on Bb
March 29, 2018 Day 11	Exam 3 Lecture after exam TBA		
April 5, 2018 Day 12	Cancer Paradigms	HW 8-Identifying known causes of top 10 cancers in	Readings will be posted on Bb

		USA, cancer screening	
April 12, 2018 Day 13	Psychological Issues in Advancing and Terminal Illness Death and Pain	TBA	Chapter 12, Taylor Chapter 10, Taylor
April 19, 2018 Day 14	Sexual, Reproductive, Maternal and Perinatal Health and Disease	HW 9- Maternal Mortality, Embryology	Chapters 23-24 Memmler
April 26, 2018 Day 15	Environmental Risks to Health Patient-Provider Communication Course Review	HW 10- Occupational Hazards, Environmental HEalth	Chapter 18, Memmler Chapter 9, Taylor
Final Exam May 8, 2018	2-4pm	OFFICIAL ASSIGNED TIME AND DATE	

Grading Rubric

10 Online Homework Assignments	20%
Essay on a Disease Process	10%
In class participation	5%
3 exams (15% each)	45%
Final Exam	20%
Total	100%

Percent of Total Grade	Final Letter Grade
92.5-100	A
89.5 - 92.4	A-
84.5 - 89.4	B+
82.5 - 84.4	B
79.5 - 82.4	B-
74.5 - 79.4	C+
72.5 - 74.4	C
69.5 - 72.4	C-
64.5 - 69.4	D+
62.5 - 64.4	D
60 - 62.4	D-
<60	F

ONLINE HOMEWORK ASSIGNMENTS: 20%

- . There are ten (10) online homework assignments worth 20% of the total grade.
- . Homework assignments will be visible/accessible on Blackboard, under the “Assignments” tab and will remain visible/accessible until 3:00 p.m. on the due date as listed in the class calendar
- . Once the homework is taken off the site, **IT CANNOT BE ACCESSED AGAIN**, therefore, please make sure you do the online homework assignments in the allotted time.
- . Manual submission of homework assignments will not be accepted.

ESSAY ON A DISEASE PROCESS 10%

Using a biopsychosocial model, write a 500-word essay double-spaced in which you tell describe a person (actual or imagined). Tell us about their medical history, the social history, and their

psychological history, making sure to integrate these elements, telling us how they influence each other.

Rubric for this essay is separately attached in Blackboard.

ATTENDANCE AND IN CLASS PARTICIPATION 5%

Attendance

Attendance will be checked every class. Arriving late or leaving early is not permitted. You are expected to attend every class, arrive on time, remain for the entire duration of the class, and engage in active, thoughtful, and respectful class participation. Excused absences include 'documented' illness or emergency, military service, approved religious holidays, or athletic games. Please, provide documentation (*e.g.*, doctor's note) for any excused absence(s) to your TA. Any undocumented absence will be considered 'unexcused', and adversely affect your course final grade.

In-class Participation

Students will be graded for their active participation in the class discussions. Starting from the second week of the course, students will be called upon randomly to answer questions and to discuss the topics assigned for that day, as stated in the course calendar. Topics and questions posed may not all be covered in the textbook, therefore students are encouraged to supplement their knowledge of the pathophysiology of the diseases from other more detailed sources, such as official health/medical websites or textbooks, to help answer the questions and to participate actively in the class discussions. Participation in activities planned and executed in class will also be tracked. Expected work done during time allotted in class will be submitted to the TA for credit.

Not all students will be called upon each lecture, however, if a student is not present when his/her name is called, their participation grade for that session will be set to "o".

Grading rubric for in-class participation:

Student present, answers questions correctly, partially correctly or incorrectly 3

Student absent from class 0

EXAMS: 65%

There will be 3 in-class exams worth 45% (15% each) and a final exam worth 25% of your total grade,

according to the schedule indicated in the course calendar.

Question format for all exams will be the same format as online homework assignments.

ATTENDANCE ON ALL EXAMS IS MANDATORY.

Absence from any of the exams will be considered ONLY if there is a documented emergency, such as

serious illness documented by a doctor's note or grave family emergency for an immediate family member (documentation required).

***Final exam date:** Tuesday, May 8, 2018 2-4 pm official assigned time and date

Grading Rubric

You can check your current grade by clicking the “tools” tab, then “my grades” tab, in the NEW BB.

Your ongoing grade percentage for the course will be listed under the **WEIGHTED TOTAL**.

Important Guidelines for Electronic Devices (Laptop Computers, ipads, and iphones, etc.)

The use of electronic devices is not permitted in HP320 classes; the only exception is during in-class assignments when you are specifically instructed to use your laptop. **Cell phone/laptops/iPads/other electronic devices must be turned off or set to “vibrate” and put away in your backpack or bag and under your desk during class time.**

All course lecture materials will be available on Blackboard; so, no need to take copious notes during lectures.

You may use pen/pencil to take notes in your notebook or in the printout of the slides from the day's lecture.

No note taking by any electronic device is permitted in HP 320 classes.

NOTE: Failure to comply with the above rules of classroom etiquette will adversely affect your final course grade

Academic Integrity

Academic integrity is expected of every student in all academic work. You are held to the University's Code of Academic Integrity. All USC students are responsible for reading and following the Student Conduct Code, which can be found at <http://www.usc.edu/dept/publications/SCAMPUS/>. The USC student code prohibits plagiarism. Students who violate University standards for academic integrity are subject to disciplinary sanctions.

Students with disabilities

Any student requesting academic accommodation based on a disability is required to register with Disability Services and Programs (DSP) each semester.

DSP is located in STU 301 and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

A letter of verification for approved accommodations can be obtained from the DSP office. Please make sure the letter is delivered to your instructor and TA as early in the semester as possible.

Disclaimer

The syllabus and course calendar are subject to change at the discretion of the instructor. Revised syllabus and/or course calendar will be posted on Blackboard if significant changes take place.

Percent of Total Grade	Final Letter Grade
92.5-100	A
89.5 - 92.4	A-
84.5 - 89.4	B+
82.5 - 84.4	B
79.5 - 82.4	B-
74.5 - 79.4	C+
72.5 - 74.4	C
69.5 - 72.4	C-
64.5 - 69.4	D+
62.5 - 64.4	D
60 - 62.4	D-
<60	F

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, <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

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

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

National Suicide Prevention Lifeline – 1 (800) 273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. engemannshc.usc.edu/rsvp

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: sarc.usc.edu

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

Works with faculty, staff, visitors, applicants, and students around issues of protected class. equity.usc.edu

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. studentaffairs.usc.edu/bias-assessment-response-support

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations. dsp.usc.edu

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. studentaffairs.usc.edu/sssa

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. diversity.usc.edu

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. emergency.usc.edu

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.

Provides overall safety to USC community. dps.usc.edu