

BIOL 830P Special Topics: Human Microbiome Summer 2021

Instructor Information:

Dr. Dawn Simon

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During the week, I check email messages at least twice a day (once in the morning and once in late afternoon) and will usually respond within 24 (weekday) hours. (For example, if you email me on a Friday afternoon, I will typically respond by Monday afternoon.) In special circumstances, responses may be delayed up to 72 hours. I do not have voice mail on my office phone, so it is best to leave messages for me via email.

Course Description:

The human microbiome can be described as the catalog of human-associated microorganisms and their genes. The microbiome has been implicated in a wide array of human traits – from susceptibility to disease to mental health. In this course, we will explore the characteristics of the human microbiome, with an emphasis on the connection between the microbiome and human health. This will be explored through lectures, readings and discussions.

Course Objectives:

1. Students will be able to define what the human microbiome is and have a basic understanding of how it is studied.
2. Students will have an appreciation of the possible consequences of the microbiome on human health.
3. Students will demonstrate the ability to form a coherent evidence-based argument and communicate this in writing.
4. Students will be able to locate and appropriately use examples from the primary literature.

Required Text:

10% Human: How Your Body's Microbes Hold the Key to Health and Happiness (2016), A. Collen, Harper Collins Publishing.

Computer Requirements:

You are required to have frequent access to a computer with internet connectivity and a webcam. Microsoft Word and PowePoint are also required.

Mode of Instruction:

This course is entirely online. Instruction will be via lectures, student presentations and assigned readings & discussions.

Grades:

The course grade is based on an introductory discussion board post (5 pts), weekly discussion board posts (80 points), presentations (50 pts), presentation reviews (25 pts), and two exams (100 pts). Letter grades, using the plus/minus system, will be assigned using the standard grading scale for the Dept. of Biology, as follows: A (93-100%), A- (90-92%), B+ (88-89%), B (83-87%), B- (80-82%), C+ (78-79%), C (73-77%), C- (70-72%), D+ (68-69%), D (63-67%), D- (60-62%), and F (below 60%). Your final grade will be rounded up (so, if you finish with an 82.5% your grade will be a B).

Assignments:

Most weeks you will need to view a lecture, complete a reading assignment, participate in discussion boards and write/record/view presentations. In addition there will be two exams. See schedule on the last page for deadlines. Except under extraordinary circumstances, late assignments will not be accepted.

Discussions

For discussion board assignments, I will post multiple questions/topics per week. You will be required to respond to one of these original questions or pose/respond to one of your own questions related to the week's reading, as well as interact with your classmates (10 pts per post). A rubric will be provided. You will not be allowed to see other posts until after your initial post

Presentations

Students will be responsible for a total of two presentations focused on the role of the microbiome and disease (25 pts each). Specific diseases will be assigned at the end of Week 1. Presentations will be created in PowerPoint and recorded using VidGrid. Students will also be responsible for reviewing other student presentations (5 pts per review).

Presentations

Exams are a combination of multiple choice and short essay. Each is worth 50 pts.

Academic Integrity:

Plagiarism will not be tolerated. You must cite all sources and rephrase content in your own words. You assume full responsibility for the content and integrity of the work you submit. Students who plagiarize any part of their assignments will at minimum receive a zero on that assignment and could potentially fail this course.

Appropriate References:

For the purposes of this course, an appropriate reference is defined as a peer-reviewed journal article or book chapter, assigned reading material (including your text) and lecture material. However, in each week's discussion at least two of these references must be from peer-reviewed sources. More details will be provided on Canvas for how to locate and cite these sources.

Students with Disabilities

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students with documented disabilities. To receive accommodation services for a disability, students must be registered with UNK Disabilities Services for Students Office, 172 Memorial Student Affairs Building, 308-865-8988 or by email unkdso@unk.edu

Students Who are Pregnant

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students who are pregnant. To receive accommodation services due to pregnancy, students must contact Cindy Ference in Student Health, 308-865-8219. The following link provides information for students and faculty regarding pregnancy rights. <http://www.nwlc.org/resource/pregnant-and-parenting-students-rights-faqs-college-and-graduate-students>

Reporting Student Sexual Harassment, Sexual Violence or Sexual Assault

Reporting allegations of rape, domestic violence, dating violence, sexual assault, sexual harassment, and stalking enables the University to promptly provide support to the impacted student(s), and to take appropriate action to prevent a recurrence of such sexual misconduct and protect the campus community. Confidentiality will be respected to the greatest degree possible. Any student who believes she or he may be the victim of sexual misconduct is encouraged to report to one or more of the following resources:

Local Domestic Violence, Sexual Assault Advocacy Agency 308-237-2599

Campus Police (or Security) 308-865-8911

Title IX Coordinator 308-865-8655

Retaliation against the student making the report, whether by students or University employees, will not be tolerated.

Course schedule:

<u>Week</u>	<u>Topic</u>	<u>Reading</u>	<u>Assignment (Due: Sun11:59 p.m.)</u>
1 (6/7)	Introduction	Prolog., Intro, Ch 1	Discussion
2 (6/14)	Gut	Ch. 2	Discussion, Presentation*
3 (6/21)	Brain	Ch. 3	Discussion, Presentation*
4 (6/28)	Immune System	Ch. 4	Discussion, Exam 1
5 (7/5)	Antimicrobials	Ch. 5	Discussion, Presentation*
6 (7/12)	Nutrition	Ch. 6	Discussion, Presentation*
7 (7/5)	Development	Ch. 7	Discussion, Presentation*
8 (7/12)	Microbial Restoration	Ch. 8	Discussion, Exam 2

*You will only write/record a total of two presentations throughout this course. These will be due on Sunday at 11:59. You will not have a presentation to write/record each week. However, you will need to review a subset of other presentations. They will be posted by Monday (6:00 p.m.) of the following week with reviews due the following Sunday at 11:59 pm.

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