

COURSE WEBSITE: Canvas

Lecture Schedule: Monday/Wednesday 8:00 AM – 9:30 AM; note this time is reserved for exams

Course form: Remote; Asynchronous

Office Hours: Monday/Wednesday 8:30 AM – 9:30 AM on Canvas Conferences

COURSE INSTRUCTOR: Dr. Haiyang Lu (hlu@dls.rutgers.edu)

TECHNOLOGY REQUIREMENTS:

Microphone, high speed internet, webcam, Lockdown browser software

Please visit the Rutgers Student Tech Guide page for resources available to all students. If you do not have the appropriate technology for financial reasons, please email Dean of Students deanofstudents@echo.rutgers.edu for assistance. If you are facing other financial hardships, please visit the Office of Financial Aid at <https://financialaid.rutgers.edu/>.

COURSE DESCRIPTION:

This course will integrate basic microbiology and infectious diseases. The intention is to provide students with the tools needed to understand medical microbiology, mainly using a case-based approach to stress key principles of microbial pathogenesis, the applications of clinical microbiology diagnostic techniques and the selection and use of key antimicrobial agents.

In each case study, the student will be introduced to a patient's history, differential diagnosis, clinical cues, laboratory data, pathogenesis, treatment and prevention for a particular disease. Diagnosis and host/parasite interactions in diseases caused by microorganisms, including pathogenicity, virulence and immunity, will be the main focus of the discussion.

COURSE OBJECTIVES:

The objective of this course is to provide the students with background and up-to-date identifications for microbes that cause specific diseases in humans. By the end of the course, students will be able to understand the role that certain microorganisms play in particular human diseases, to interpret the clinical presentation of these infectious diseases and describe the relevant microbiology, pathophysiology, and immunology.

PREREQUISITES:

General Biology 01:119:115-116-117 or 01:119:101-102 and General Chemistry 01:160:161-162-171 (or higher) and Organic Chemistry 01:160:307. Systems Physiology is recommended.

TEXTs FOR THE COURSE:

• **REQUIRED:**

Medical Microbiology for the New Curriculum: A case-based approach; Roberta Carey, Mindy Schuster, Karin L McGowen. 1st Pub Wiley 12/10/2007 ISBN 9780471479338

Microbiology: Principles and Explorations, 10th Edition, J.G. Black, 2018, John Wiley & Sons, Inc. ISBN: 978-1-119-39011-4

• **RECOMMENDED:**

Microbiology by OpenStax. Digital ISBN-13: 978-1-947172-23-4 and Hardcover Print ISBN-13: 978-1-938168-14-7 (This textbook is available for free download at the OpenStax website)

Tentative schedule (Schedule and topics are subject to change)

Unit	Lecture	Date	Day	Key Lecture Topics	Chapters ¹ Pages ²
I	1	1/20	W	Microbiology History, Taxonomy, Cell Characteristics	Ch 1,5 10
	2	1/25	M	Microbial Metabolism, Microbial Growth	Ch 6, 7
	3	1/27	W	Genetics, Host Defenses	Ch8-9,17-18
II	4	2/1	M	Diagnostic Microbiology	* Ch 2,8,12, & 20
	5	2/3	W	Exam 1 (Lectures 1- 3) Antimicrobial Therapy	Ch 14
	6	2/8	M	Host Microbe Relationships	Ch 15
	7	2/10	W	Epidemiology Basics	Ch 16
		2/15	M	Exam 2 (Lectures 4- 7)	
III	8	2/17	W	Case Study 1: Nursing Home Resident with Fever, Cough, and Myalgias (#11)	Pg. 115-122
	9	2/22	M	Case Study 1– Cont'd	
	10	2/24	W	Case Study 2: Neonate with Fever and Vesicular Rash (#18)	Pg. 192-200
	11	3/1	M	Case Study 2– Cont'd	
	12	3/3	W	Case Study 3: Student with Fever, Lymphadenopathy and Hepatosplenomegaly (#24)	Pg. 259-270
	13	3/8	M	Case Study 3– Cont'd	
		3/10	W	Exam 3 (Lectures 8- 13)	
		3/13- 3/21		No class (Spring Break)	
IV	14	3/22	M	Case Study 4: Boy with Acute pharyngitis (#1)	Pg. 1-11
	15	3/25	W	Case Study 4– Cont'd	
	16	3/29	M	Case Study 5: Woman with Acute Fever and Productive cough (#10)	Pg. 99-114
	17	3/31	W	Case Study 5– Cont'd	
	18	4/5	M	Case Study 6: Boy with Vomiting and Diarrhea after a School Picnic (#3)	Pg. 23-34
	19	4/7	W	Case Study 6– Cont'd	
		4/12	M	Exam 4 (Lectures 14- 19)	
V	20	4/14	W	Case Study 7: Fever of Unknown Origin in a Traveler (#23)	Pg. 246-258
	21	4/19	M	Case Study 7– Cont'd	
	22	4/21	W	Case Study 8: Student with Dysuria (#2)	Pg. 12-22
	23	4/26	M	Case Study 8– Cont'd	
	24	4/28	W	Case Study 9: Man with a Surgical Wound after a Prosthetic Hip Placement (#7)	Pg. 65-74
	25	5/3	M	Case Study 9– Cont'd	
		Final Exam Period		Exam 5 (Lectures 20- 25)	

Chapters¹: Microbiology: Principles and Explorations

Pages²: Medical Microbiology for the New Curriculum: A case based approach

*: Microbiology by OpenStax.

ASSESSMENTS:

There will be 5 exams; each contributes 15% toward the final course grade. Exams will consist of a variety of formats including multiple choice, true-false, matching and analytical problem questions, and will last approximately 50 minutes. Exams will be administrated online using the quiz feature on Canvas as well as LockDown Browser. You will be expected to start the exam at the scheduled time. **Without valid excuse, absences from the exam will result in a grade of zero.**

Also, there will be multiple assignments including individual assignments and group assignments, which together contribute 25% toward the final course grade. Assignments will be graded for accuracy.

Students are required to complete each assignment by its due date and late submission will result in penalty or even won't be accepted.

Course grades are produced as follows:

Five Exams = 75%

Assignments = 25%

Total Percent = 100%

Grading Scale

A	90-100%
B+	86-89%
B	80-85%
C+	76-79%
C	70-75%
D	60-69%
F	<60%

Grades: All grades will be made available on course website under "Gradebook". Gradebook will also provide students with their progress during the course, as well as their accumulative course grade. Any questions related to the grading must be brought to the instructor within one week. The instructor will NOT address appeals at the end of the semester related to material covered in the beginning or middle of the semester.

No additional work for extra-credit will be given to selected individuals at the end of the semester. The final course grades will not be changed under any circumstance. The instructor will not bump students to the next letter grade. For example, if you get 89.9%, that's a B+. It is not required that the instructor round your grade to the next letter grade. In fact, this can often lead to an inflation in class grades.

Make-up exams: Only *one* exam makeup is allowed and only in the event of an unexpected emergency, religious holiday recognized by Rutgers University, or required travel for varsity athletics. The excuse needs to be verified and the make-up will be given at the discretion of the instructor. If a makeup exam for unexpected emergency is requested, the course instructor *must be notified within 12 hours* of the posted exam period.

Meanwhile, students who cannot take the exam at the preschedule time are required to use the **Rutgers Self-Reporting Absence Website** (<https://sims.rutgers.edu/ssra/>) to report their absences.

If you have a conflict with the regularly scheduled final exam, (<https://scheduling.rutgers.edu/scheduling/exam-scheduling/final-exam-schedule>), you must submit your final exam schedule to me as soon as possible (no later than Mar 31).

ATTENDANCE

Because this is a remote class, students are not required to attend any meetings. However, students are strongly encouraged to attend office hours to ask all your questions directly.

In-Class Behavior

Students are expected to conduct themselves with the appropriate scholarly and professional attitude in class when interacting with the instructor and peers.

Cheating and plagiarizing, in any form, will not be tolerated. The consequences of scholastic dishonesty are very serious. Students must adhere to the University Policy on Academic Integrity which can be found at <http://academicintegrity.rutgers.edu/academic-integrity-policy>.

Current Academic Integrity Policy:

Summary:

<http://nbacademicintegrity.rutgers.edu/home-2/academic-integrity-policy/>

Resources for Students:

<http://nbacademicintegrity.rutgers.edu/home-2/for-students/>

Honor pledge:

All students will need to sign the Rutgers Honor Pledge on every major exam, assignment, or other assessment as follows:

On my honor, I have neither received nor given any unauthorized assistance on this examination (assignment, paper, quiz, etc.).

Rutgers University takes academic dishonesty very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Student Conduct. Academic dishonesty includes (but is not limited to):

- Cheating
- Plagiarism
- Aiding others in committing a violation or allowing others to use your work
- Failure to cite sources correctly
- Fabrication
- Using another person's ideas or words without attribution—re-using a previous assignment
- Unauthorized collaboration
- Sabotaging another student's work in doubt, please consult the instructor

Please review the [Academic Integrity Policy](#) or the [Academic Integrity Resources for Students](#)

Almost all original work is the intellectual property of its authors. These works may include syllabi, lecture slides, recorded lectures, homework problems, exams, and other materials, in either printed or electronic form. The authors may hold copyrights in these works, which are protected by U.S. statutes. Copying this work or posting it online without the permission of the author may violate the author's rights. More importantly, these works are the product of the author's efforts; respect for these efforts and for the author's intellectual property rights is an important value that members of the university community take seriously.

For more instructions on copyright protections at Rutgers University, please refer to the Rutgers Libraries.

Learning Centers: <https://rlc.rutgers.edu/>

Academic Advising for SAS students: <https://sasundergrad.rutgers.edu/advising/advising>

Online Learning Tools from Rutgers University Libraries including Rutgers RIOT, Searchpath and RefWorks <http://www.libraries.rutgers.edu/tutorials>

Student-Wellness Services: All of these services are being provided remotely during Fall 2020

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 / <http://health.rutgers.edu/medical-counseling-services/counseling/>

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community, and consultation and collaboration with campus partners.

Crisis Intervention : <http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/>

Report a Concern: <http://health.rutgers.edu/do-something-to-help/>

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.