BIOL-2 Syllabus and Course Schedule

Syllabus for BIOL-2 (Microbiology)

Course Information:

- Semester & Year: Fall 2024
- Course ID & Section #: BIOL-2 E8284
- Instructor's name: Christopher Callahan
- Day/Time: Tuesday/Thursday 6:05pm - 9:15pm
- Lab Room: SC-104
- Number of units: 4.0

Instructor Contact Information

- Office location: SC-216A
- Office hours: After lab or by appointment
- Phone number: 707-476-4257
- Email address: **christopher-callahan@redwoods.edu (mailto:christopher-callahan@redwoods.edu)**

Required Materials

- Textbook Title: OpenStax College Microbiology (Free)
  - Edition: 1e
  - Author: OpenStax College
  - ISBN: N/A
- Laboratory Manual: Micriobiology: Laboratory Theory & Application
  - Edition: 3e Brief
  - Autohor: Leboffe, Morton Publishing
  - ISBN: 978-1617314773

Recommended Materials:

- Lab attire
  - lab coat, scrubs, or other protective clothes
- Personal Protective Equipment (PPE)
  - disposable gloves (latex or nitrile)
  - eye protection
  - face mask

Catalog Description

A study of microorganisms including anatomy, physiology, genetics, and ecological importance. Emphasis will be on the role of microorganisms in disease and the mechanisms of microbe/host interactions. Laboratory work emphasizes the importance of aseptic techniques, methods of microbial control, and procedures for isolating, culturing microbes, and identifying microorganisms.

Course Student Learning Outcomes:

1. Describe the anatomy, physiology and biochemistry of microorganisms and the consequential effects of various environmental factors upon them.
2. Know the causative organism of the more common human diseases and the physiological effect of the drugs most commonly used in the fight against these diseases.
3. Describe the principles and applications of genetic engineering and the role that microorganisms are playing in this process.

Evaluation & Grading Policy

Assignment		Points
Lecture Exams	3 exams @ 100 points each	300
Lab Practical Exam	1 exam @ 50 points each	50
Syllabus Quiz	must be completed by 9/3	5
Chapter Quiz	12 quizzes @ 10 points each	120

Discussions	3 @ 10 points each	30
Lab Activities	15 activities @ 15 pts each	225
Bioremediation Lab Activity		25
Winogradsky Lab Activity		25
Antibiotics Lab Activity		25
Bergey's Activity		25
Parasite Cafe		20
Clinical Lab Activity		50
Descriptive Chart		15
Unknown Report		85
	Total Points Attainable:	**1000**

If you receive 95-100% of total points you will receive an A; 90 to 94% earns an A-; 87-89% earns a B+; 84-86% earns a B; 80-83% earns a B-; 75-79 earns a C+; 70-74 earns a C; 60-69% earns a D; and 59% or below earns an F. There is no 'curving' or extra credit opportunities for missed work.

Prerequisites/co-requisites/ Recommended Preparation

Prerequisite: BIOL-1 or BIOL 3

Pre- or Co-requisite: CHEM-1A or CHEM-2

CHEMISTRY CO-ENROLLMENT ADIVSORY

If you are co-enrolled in chemistry (CHEM 1A or CHEM 2) it is imperative that you stay enrolled in chemistry throughout the entire semester. If you drop the course, fail to attend, or are dropped by the chemistry instructor, you will be automatically dropped from this course. This is an automated process through the Admissions and Records Office and I have no ability to keep you enrolled in the class. Please make sure you stay enrolled in chemistry if you wish to stay in this class.

Student Feedback Policy

All work will be graded within two weeks of submission for evaluation. Grades will be posted on Canvas and will not be communicated through email. If you would like to discuss grades you'll have to set up an in-person meeting with me.

Educational Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, bipolar disorder, and ADHD
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- A learning disability (e.g., dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
- Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, tutoring, counseling and advising, alternate formats of materials (e.g., audio books, E-texts), assistive technology, on-campus transportation, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact **Disability Services and Programs** ⤷ **(https://www.redwoods.edu/dsps) for Students (DSPS)** ⤷ **(https://www.redwoods.edu/dsps)** . If you are unsure whether you qualify, please contact DSPS for a consultation: **dsps@redwoods.edu (mailto:dsps@redwoods.edu)** .

- Eureka: 707-476-4280, Student Services Building, 1st floor
- Del Norte: 707-465-2324, Main Building, near the library
- Klamath-Trinity: 707-476-4280

Student Support Services

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

The following online resources are available to support your success as a student:

- **CR-Online** ▱ **(https://www.redwoods.edu/online)** (Comprehensive information for online students)
- **Library Articles & Databases** ▱ **(https://redwoods.libguides.com/az.php)**
- **Canvas help and tutorials** ▱ **(https://webapps.redwoods.edu/tutorial/)**
- **Online Student Handbook** ▱ **(https://www.redwoods.edu/Portals/72/Documents/Students/CR-OnlineStudentHandbook.pdf)**
- **Online Tutoring Resources** ▱ **(https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fredwoods.libguides.com%2FTutoring%2FOnline&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Cbcfe068f8aca4941dde408daee9eaea9%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638084662554822741%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=IPQnFsRsujkzGkSNl2eqR4ofcCFQuSN6PcfuoYRnp5s%3D&reserved=0)**

To learn more about the resources available to you, click on a title bar below, or click the down arrow to expand them all.

Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

Community College Student Health and Wellness

If you are in distress or are with someone at risk right now, call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255) or TEXT 741-741

Timely Care

When you're feeling under the weather physically or distressed mentally, you can find the help you're looking for in just a few quick taps. Students can schedule an appointment anytime via phone, video, and chat. **Visit TimelyCARE here** ▱ **(https://www.timelycare.com/redwoods)**

Mental Health Counseling
Students should text, email, or fax Shawna Bell directly for scheduling and/or services.

Contact info
Text: 707-496-2856
Email: **shawnabmft@gmail.com (mailto:shawnabmft@gmail.com)** Fax: 707-237-2318 (voicemail can be left via fax)

Wellness Central

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges Wellness Central.

Counseling

Counseling & Advising ▶ **(https://www.redwoods.edu/counseling/)** can assist students in need of academic advising and professional counseling services. Visit the Welcome Center in the lower level of the student services building Monday –Friday 9am – 4pm (during the semester, summer hours may vary).

Basic Needs Center

The Basic Needs Center ▶ **(https://www.redwoods.edu/student-services/Home/Basic-Needs)** provides for the health and safety of students by providing access to healthy food, financial resources, and referrals to safe and secure housing. Students can submit a request for services and information **here.** ▶ **(https://cm.maxient.com/reportingform.php?Redwoods&layout_id=7)**

Contact info
Phone: 707-476-4153
Email: the-grove@redwoods.edu

Learning Resource Center

Learning Resource Center includes the following resources for students

- **Library Services** ▶ **(https://www.redwoods.edu/library)** to promote information literacy and provide organized information resources.
- **Multicultural & Diversity Center** ▶ **(https://www.redwoods.edu/student-services/Home/Multicultural-and-Diversity-Center)**
- **Academic Support Center** ▶ **(https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Fasc%2F&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Cbcfe068f8aca4941dde408daee9eaea9%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638084662554822741%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTil6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=Riz9ZxeBWEWFm69aT5OdIdMsHyFsoonUcvZJLf5yQ1I%3D&reserved=0)** – offers tutoring and test proctoring for CR students.
- **Student Tech Help** ▶ **(https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Fsts&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Cbcfe068f8aca4941dde408daee9eaea9%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638084662554822741%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTil6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=%2FJ23kPg%2FGw0UgR98LB1fPf7GIk7JzRZUBESsb1Vzf%2BQ%3D&reserved=0)** – provides students with assistance around a variety of tech problems.

EOPS

Extended Opportunity Programs & Services (EOPS). ⬈ (https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Feops&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7C2ce7a088cd704461ad6d08dbf7468e57%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638375654659447953%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTil6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=4ZgZAvPlPkZKsZpUf2og%2BAIdVIralzWQwOpvkWmJ8Hw%3D&reserved=0)** provides services to eligible income disadvantaged students including: textbook awards, grants, career academic and personal counseling, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!

TRiO Student Success Program

The TRiO Student Support Services Program provides eligible students with a variety of services including academic advising, career assessments, assistance with transfer, and peer mentoring. Students can apply for the program in **Eureka** ⬈ (https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Ftrio%2Feureka&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Cce79e43cea6a49ebd79308dbf80a65bd%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638376495773454304%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTil6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=W9ZMWZ5n12tljMCwaCBoNTi1P89g28a3khXNYYLrqEs%3D&reserved=0)** or in **Del Norte** ⬈ (https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Fdelnorte%2FTRiO&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Cce79e43cea6a49ebd79308dbf80a65bd%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638376495773454304%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTil6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=7DA4%2BYmUqJ4z%2FdPM0TqWmaanydSee8IXEzY29k3fB2M%3D&reserved=0)** .

Veterans Resource Center

The **Veteran's Resource Center** ⬈ (https://www.redwoods.edu/student-services/Home/Vets) supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.

CalWORKS

CalWORKs – California Work Opportunity & Responsibility to Kids (CalWORKs). Provides supportive services to student parents with children under the age of 18, who are receiving cash assistance (TANF **benefits**), to become self-sufficient. Services include: transportation assistance,

basic student supplies, tutoring, priority registration, laptop and calculator loans, career, academic, and personal counseling, and more!

Admissions deadlines & enrollment policies

Fall 2024 Dates

- *Classes begin: 08/26/24*
- *Last day to add a class: 08/30/24*
- *Labor Day (all campuses closed): 09/02/24*
- *Last day to drop without a W and receive a refund: 09/06/24*
- *Census date: 09/09/24 or 20% into class duration*
- *Last day to petition to graduate or apply for certificate: 10/31/24*
- *Spring Break (no classes): 03/11/24 – 03/16/24*
- *Last day for student-initiated W (no refund): 11/01/24*
- *Last day for faculty-initiated W (no refund): 11/01/24*
- *Veteran's Day Holiday (all campuses closed): 11/11/24*
- *Fall Break and Thanksgiving Holiday: 11/25/24 through 11/29/24*
- *Final examinations: 12/14/24 – 12/20/24*
- *Last day to petition to file P/NP option: 12/20/24*
- *Semester ends: 12/20/24*
- Grades Due: *12/27/24*
- *Grades available for transcript release: approximately 01/03/25*

Academic dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (**AP 5500 (https://redwoods.instructure.com/courses/18872/pages/student-code-of-conduct-and-disciplinary-procedures?module_item_id=976178)**) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the **College Catalog** ⤶ **(https://www.redwoods.edu/catalog)**

and on the **College of the Redwoods website** ⬒
(https://www.boarddocs.com/ca/redwoods/Board.nsf/Public?open&id=policies) .

AI Use Class Policy

Recent advancements in generative artificial intelligence (AI) have made large language models such as ChatGPT and Google's Bard widely available. However, overuse of these tools in this class can undermine your learning and curtail the development of your critical and creative thinking skills. In addition, AI outputs are often unreliable and frequently subject to bias. For these reasons, the policy of this class is that AI cannot be used at any point in the completion of class assignments, including discussion posts. Any or all of your assignment submissions and discussion posts may be screened by AI detection software, but the real penalty for AI misuse is that you will miss out on an opportunity to learn.

Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (**AP 5500 (https://redwoods.instructure.com/courses/18872/pages/student-code-of-conduct-and-disciplinary-procedures?module_item_id=976178)**) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the **College Catalog** ⬒ **(https://www.redwoods.edu/catalog)** and on the **College of the Redwoods website** ⬒ **(https://www.boarddocs.com/ca/redwoods/Board.nsf/Public?open&id=policies)**

Policies for this Class

Class participation

Lecture and lab are intimately interrelated. Attendance at all lab meetings is mandatory and required.

Lecture Exams: There are three lecture exams including the lecture final. Exams are not comprehensive and will only cover new material.

Lab Exams: There is one lab exam in the final lab period of the semester.

Weekly Chapter Quizzes: Each week you will take a quiz covering that week's lecture material. We will not have a quiz on the week we take a lecture exam.

Unknown Report: You will be given an unknown bacterial species that you will systematically identify to species based on the lab skills learned this semester. You will submit your findings at the end of the semester in a report. More details will be given in lab.

Discussions: There will be three online discussions to participate in.

Misc Assignments: There are misc assignments given throughout the semester.

Attendance Policy

This is a hybrid class.   All lecture material will be conducted online and as such you have the freedom to choose when you engage with course content, however, there are strict deadlines on when assignments will be due. Lab activities meet in-person on Tuesday/Thursday 6:05pm-9:15pm in room SC-104. You are expected and required to attend all in-person labs. This is not a self-paced course and you will have assignments due each week. You must complete assignments on time. No late assignments will be accepted and no extra credit opportunities will be given. In the event of Covid exposures, lab content will be shifted to online until it is safe to return to the classroom.

Excessive absences without a verified and valid excuse will result in a lower grade up to the discretion of the instructor and may result in you being dropped from the course. Missed lab assignments can not be made up and there are no alternative/extra credit assignments/opportunities. Students with legitimate absences will need to work with the instructor for an alternative assignment.

Academic Integrity and Honor Pledge

As a College of the Redwoods student you are expected to conduct yourself with integrity. Please review the **Academic Integrity (https://redwoods.instructure.com/courses/18872/pages/academic-integrity?module_item_id=976179)** page and then complete the **Syllabus Quiz**

(https://redwoods.instructure.com/courses/18872/quizzes/110786?module_item_id=976181) by Tuesday, September 3rd at midnight.

Information for this Class

Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact **Admissions & Records** ⤷ **(https://www.redwoods.edu/admissions/Forms)** to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. It does not change your legal name in our records. See the **Student Information Update form** ⤷ **(https://www.redwoods.edu/Portals/28/A.R.Forms.Docs/Miscellaneous/Student%20Information%20Update.pdf)** .

Canvas Information

Please see **Online Orientation Letter (https://redwoods.instructure.com/courses/18872/pages/biol-2-orientation-letter?module_item_id=gf11290cdc82a98a1de681c63e744d20d)** for more information

- Log into Canvas at **https://redwoods.instructure.com (https://redwoods.instructure.com/)**
- Password is your 8 digit birth date
- For tech help, email **its@redwoods.edu (mailto:its@redwoods.edu)** or call 707-476-4160

Technology skills, requirements, and support

- Tech equipment and skills are required for student success, and of equal importance as required textbooks and materials.
- Students can obtain a free **Office 365 license** ⤷ **(https://www.redwoods.edu/Services/Office365)** (includes Word, Excel, PowerPoint and more) with a valid CR email.
- Before contacting Technical Support please visit the **Online Support Page** ⤷ **(http://www.redwoods.edu/online/Help)** .
- For password issues with Canvas, Web Advisor or your mycr.redwoods.edu email, contact **its@redwoods.edu (mailto:its@redwoods.edu)** or call 707-476-4160 or 800-641-0400 ext. 4160 between 8:00 A.M. and 4:00 P.M., Monday through Friday.

Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor **https://webadvisor.redwoods.edu** ⬏ **(https://webadvisor.redwoods.edu)** and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or **security@redwoods.edu (mailto:security@redwoods.edu)** if you have any questions. For more information see the **Redwoods Public Safety Page** ⬏ **(https://www.redwoods.edu/about-us/Home/CR-Police-Department)** .

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

Eureka Campus Emergency Procedures

Please review the campus emergency map for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the **CR Police Department- Public Safety** ⬏ **(https://www.redwoods.edu/about-us/Home/CR-Police-Department)** It is the responsibility of College of the Redwoods to protect life and property from the effects of emergencies within its own jurisdiction.

In the event of an emergency:

1. Evaluate the impact the emergency has on your activity/operation and take appropriate action.

2. Dial 911, to notify local agency support such as law enforcement or fire services.

3. Notify Public Safety 707-476-4111 and inform them of the situation, with as much relevant information as possible.

4. Public Safety shall relay threat information, warnings, and alerts through the Everbridge emergency alert system, Public address system, and when possible, updates on the college website, to ensure the school community is notified.

5. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet, (evacuation to a safe zone, shelter in place, lockdown, assist others if possible, cooperate with First Responders, etc.).

6. If safe to do so, notify key administrators, departments, and personnel.

7. Do not leave campus, unless it is necessary to preserve life and/or has been deemed safe by the person in command.

Course Schedule

Each week new learning topics will be available in the course modules. Topics are arranged by lecture exam (5 topics per exam). Each week will begin on Tuesday and end the following Monday at midnight. This schedule is subject to change with fair notice.

Week	Online Lecture Begin Date Tuesday	Online Lecture End Date Monday	Online Lecture Topic (OpenStax Textbook)	
1	August 27, 2024	September 2, 2024	Topic 1: Intro to Microbiology • **Chapter 1: An Invisible World** ⇨ **(https://openstax.org/books/microbiology/pages/1-introduction)**	Online Orientation Lab: Intro to Micro • EX 1-3: Media
2	September 3, 2024	September 9, 2024	Topic 2: Cell Theory • **Chapter 3: The Cell** ⇨ **(https://openstax.org/books/microbiology/pages/3-introduction)**	**Labor Day Holida section)** No Class Meeting
3	September 10, 2024	September 16, 2024	Topic 3: Diversity of Prokaryotes • **Chapter 4: Prokaryotes** ⇨ **(https://openstax.org/books/microbiology/pages/4-introduction)**	Lab: Micro Techni • EX 1-4: Asepti • EX 1-5: Colony • Bioremediatio

4	September 17, 2024	September 23, 2024	Topic 4: Microscopy • **Chapter 2: How We See the Invisible World** ⬒ **(https://openstax.org/books/microbiology/pages/2-introduction)** Topic 5: Viruses • **Chapter 6: Acellular Pathogens** ⬒ **(https://openstax.org/books/microbiology/pages/6-introduction)**	Lab: Microscopy I • EX 3-1: Micros • EX 3-4: Simple
5	September 24, 2024	September 30, 2024	Topic 6: Microbiome Supplemental Reading **Lecture Exam I** ***(Online)***	Lab: Microscopy II • Unknowns • EX 3-6: Gram • EX 3-10: Motili • EX 5-24: Motili

6	October 1, 2024	October 7, 2024	Topic 7: Microbial Growth
			
			• **Chapter 9: Microbial Growth** ⬒ **(https://openstax.org/books/microbiology/pages/9-introduction)**
			
			Topic 8: Microbial Biochemistry
			
			• **Chapter 7: Microbial Biochemistry** ⬒ **(https://openstax.org/books/microbiology/pages/7-introduction)**
				Lab: Environmenta
				
				• EX 2-6: Fluid
				  (https://redwoo
				  2-6-fluid-thiogly
				• EX 2-7: Anaero
				• EX 2-8: The Ef
				• EX 2-9: The Ef

7	October 8, 2024	October 14, 2024	Topic 8: Microbial Biochemistry • **Chapter 7: Microbial Biochemistry** ⬒ **(https://openstax.org/books/microbiology/pages/7-introduction)**	Lab: Selective Me • EX 4-1: Pheny • EX 4-3: Mannit • EX 4-4: MacCc

			Topic 9: Microbial Metabolism	• EX 4-5: Eosin a
			• **Chapter 8: Microbial Metabolism** ↪ **(https://openstax.org/books/microbiology/pages/8-introduction)**	
8	October 15, 2024	October 21, 2024	Topic 9: Microbial Metabolism • **Chapter 8: Microbial Metabolism** ↪ **(https://openstax.org/books/microbiology/pages/8-introduction)** Topic 10: Biochemistry of Genome • **Chapter 10: Biochemistry of Genome** ↪ **(https://openstax.org/books/microbiology/pages/10-introduction)**	Lab: Differential M • EX 5-1: O-F Te • EX 5-2: Pheno • EX 5-3: Methyl
9	October 22, 2024	October 28, 2024	Topic 11: Microbial Genetics **Chapter 11: Microbial Genetics** ↪ **(https://openstax.org/books/microbiology/pages/11-introduction)**	Lab: Differential M • EX 5-6: Nitrate • EX 5-7: Citrate • EX 5-8: Amino **(https://redwoo 5-8-amino-acid** Tests • EX 5-9: Deami
10	October 29, 2024	November 4, 2024	Topic 12: Biotechnology • **Chapter 12: Biotechnology** ↪ **(https://openstax.org/books/microbiology/pages/12-introduction)** **Lecture Exam II (Online)**	Lab: Differential M • EX 5-10: Amyla • EX 5-11: DNas • EX 5-12: Lipas • EX 5-13: • Casease Test • EX 5-14: Gelat • EX 5-15: Urea: • EX 5-18: Sulfu

11	November 5, 2024	November 11, 2024	Topic 13: Control of Microbial Growth • Chapter 13: Control of Microbial Growth Topic 14: Control of Microbial Growth • **Chapter 14: Antimicrobial Drugs** ⇗ **(https://openstax.org/books/microbiology/pages/14-introduction)**	Lab: Antibiotics & I • EX 7-2: Kirby-E • EX 9-1: Gram I • EX 9-2: Gram I • EX 9-3: Gram I • Bergey's Manu • Flow charts • Dichotomous k • Re-dos
12	November 12, 2024	November 18, 2024	Topic 15: Mechanisms of Pathogenicity • **Chapter 15: Pathogenicity** ⇗ **(https://openstax.org/books/microbiology/pages/15-introduction)**	**Veteran's Day H** (other section) No Class Meeting
13	November 19, 2024	November 25, 2024	Topic 16: Diseases and Epidemiology • **Chapter 16: Disease and Epidemiology** ⇗ **(https://openstax.org/books/microbiology/pages/16-introduction)** Topic 17: Disease by Organ System • Skim the Following Chapters: • **Chapter 19: Diseases of the Immune System** ⇗ **(https://openstax.org/books/microbiology/pages/19-introduction)** • **Chapter 21: Skin and Eye Infections** ⇗ **(https://openstax.org/books/microbiology/pages/21-introduction)** • **Chapter 22:** ⇗ **(https://openstax.org/books/microbiology/pages/22-introduction) Respiratory System Infections** ⇗	Clinical Lab 2: Unk • EX 2-10: Salt T • EX 3-6: Gram : • EX 5-4: Catala • EX 5-5: Oxidas • EX 5-16: Bile E • EX 5-17: PYR • EX 5-21: Hemo • EX 5-23: Coag

(https://openstax.org/books/microbiology/pages/22-introduction)

- **Chapter 23: Urogenital System Infections** 🔗 (https://openstax.org/books/microbiology/pages/23-introduction)
- **Chapter 24: Digestive System Infections** 🔗 (https://openstax.org/books/microbiology/pages/24-introduction)
- **Chapter 25: Circulatory and Lymphatic System Infections** 🔗 (https://openstax.org/books/microbiology/pages/25-introduction) 🔗 (https://openstax.org/books/microbiology/pages/22-introduction)
- **Chapter 26: Nervous System Infections** 🔗 (https://openstax.org/books/microbiology/pages/26-introduction)

14	November 266, 2024	December 2, 2024	**Fall Break / Thanksgiving Holiday** No Class Meeting	**Fall Break / Than** No Class Meeting
15	December 3, 2024	December 9, 2024	Topic 18: Eukaryotic Pathogens • 🔗 (https://openstax.org/books/microbiology/pages/16-introduction) **Chapter 5: Eukaryotes** 🔗 (https://openstax.org/books/microbiology/pages/5-introduction)	Lab: Parasite Cafe • Protozoan Para • Clinical Labs D
16	December 10, 2024	December 16, 2024	Topic 19: Innate Immunity • **Chapter 17: Innate Nonspecific Host Defenses** 🔗 (https://openstax.org/books/microbiology/pages/17-introduction) Topic 20: Acquired Immunity • **Chapter 18: Adaptive Specific Host Defenses** 🔗	Wrap-up Lab • EX 7-2: Snyde • Gutsy • Agar Art

			(https://openstax.org/books/microbiology/pages/18-introduction)	
17	December 17, 2024	December 20, 2024	**Lecture Exam Final (Online) Will be due by Friday, Dec 20th at midnight**	**Lab Practical Exa** **6:00pm to 8:00pm**