

# BIOL-2 Syllabus and Course Schedule

## Syllabus for BIOL-2 (Microbiology)

### Course Information:

- Semester & Year: Fall 2025
  - Course ID & Section #: BIOL-2 V9331
  - Instructor's name: Christopher Callahan
  - Day/Time: Online
  - Location: Online
  - Number of units: 4.0
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### Instructor Contact Information

- Office location: Online
  - Office hours: Tues 2pm on Zoom or by appointment
  - Phone number: 707-476-4257
  - Email address: christopher-callahan@redwoods.edu
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### Required Materials

- Textbook Title: Microbiology Fundamentals: Clinical Approach Textbook w/ CONNECT ACCESS
  - Edition: 4e
  - Author: McGraw Hill
  - ISBN: 9781260786040
  - Other requirements: Microbiology Lab Kit (\$201 + Tax & Shipping)
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### 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.

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## 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.
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## Evaluation & Grading Policy

Assignment		Points
Lecture Exams	3 exams @ 100 points each	300
Syllabus Quiz	must be completed by 8/25	5
Lab Safety Quiz	must be completed by 10/27	5
Biosafety Level Quiz	must be completed by 9/2	5
Signed Lab Waiver	must be completed by 10/27	5
Chapter Quiz	12 quizzes @ 10 points each	120
Virtual Lab Activities	20 activities @ 10 pts each	200
Dry Lab Activities	7 activities @ 15 pts each	105
Wet Lab Activities	6 activities @ 15 pts each	90
Bergey's Activity		10
Parasite Cafe		20
Microbe Presentation		50
Misc Homeworks		25
Discussion Board	6 discussions @ 10 pts each	60
Descriptive Chart		15
Unknown Report		85
	<b>Total Points Attainable:</b>	<b>1100</b>

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 50% 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 ADVISORY\*\*\***

***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.***

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## 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 a Zoom appointment with me.

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## 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
- 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 Student Accessibility Support Services. If you are unsure whether you qualify, please contact SASS for a consultation [SASS@redwoods.edu](mailto:SASS@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)  [\\_\(https://www.redwoods.edu/online\)](https://www.redwoods.edu/online) (Comprehensive information for online students)
- [Library Articles & Databases](https://redwoods.libguides.com/az.php)  [\\_\(https://redwoods.libguides.com/az.php\)](https://redwoods.libguides.com/az.php)
- [Canvas help and tutorials](https://webapps.redwoods.edu/tutorial/)  [\\_\(https://webapps.redwoods.edu/tutorial/\)](https://webapps.redwoods.edu/tutorial/)
- [Online Student Handbook](https://www.redwoods.edu/Portals/72/Documents/Students/CR-OnlineStudentHandbook.pdf)  [\\_\(https://www.redwoods.edu/Portals/72/Documents/Students/CR-OnlineStudentHandbook.pdf\)](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%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjEkaWwiLCJXVCi6Mn0%3D%7C3000%7C%7C%7C&sdata=IPQnFsRsujkzGkSNI2eqR4ofcCFQuSN6PcfuoYRnp5s%3D&reserved=0)  [\\_\(https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fredwoods.libguides.com%2FTutoring%2FOnline&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Cbcfe068f8aca4941dde408daee9eaea9%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638084662554822741%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjEkaWwiLCJXVCi6Mn0%3D%7C3000%7C%7C%7C&sdata=IPQnFsRsujkzGkSNI2eqR4ofcCFQuSN6PcfuoYRnp5s%3D&reserved=0\)](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%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjEkaWwiLCJXVCi6Mn0%3D%7C3000%7C%7C%7C&sdata=IPQnFsRsujkzGkSNI2eqR4ofcCFQuSN6PcfuoYRnp5s%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

Tir  are

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)  (<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)

(<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/)  (<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)  (<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).  ([https://cm.maxient.com/reportingform.php?Redwoods&layout\\_id=7](https://cm.maxient.com/reportingform.php?Redwoods&layout_id=7))

Contact info

Phone: 707-476-4153

Email: [the-grove@redwoods.edu](mailto:the-grove@redwoods.edu)

## Learning Resource Center

Learning Resource Center includes the following resources for students

- [Library Services](https://www.redwoods.edu/library)  (<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)  (<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-)  (<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%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=Riz9ZxeBWEWfM69aT5OdlMsHyFsoonUcvZJLf5yQ1l%3D&reserved=0](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%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=Riz9ZxeBWEWfM69aT5OdlMsHyFsoonUcvZJLf5yQ1l%3D&reserved=0) – offers tutoring and test proctoring for CR students.

- **Student Tech Help**  [\(https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Fsts&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Cbcfe068f8aca4941dde408daee9eaea9%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638084662554822741%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=%2FJ23kPg%2FGw0UgR98LB1fPf7Gik7JzRZUBESsb1Vzf%2BQ%3D&reserved=0\)](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%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%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). [\(https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Feops&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7C2ce7a088cd704461ad6d08dbf7468e57%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638375654659447953%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=4ZgZAvPIPkZKsZpUf2og%2BAldVlralzWQwOpvkWmJ8Hw%3D&reserved=0\)](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%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=4ZgZAvPIPkZKsZpUf2og%2BAldVlralzWQwOpvkWmJ8Hw%3D&reserved=0)

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## 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**  [\(https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Ftrio%2Feureka&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Ccce79e43cea6a49ebd79308dbf80a65bd%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638376495773454304%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=W9ZMWZ5n12tIjMCwaCBonTi1P89g28a3khXNYYLrqEs%3D&reserved=0\)](https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Ftrio%2Feureka&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Ccce79e43cea6a49ebd79308dbf80a65bd%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638376495773454304%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=W9ZMWZ5n12tIjMCwaCBonTi1P89g28a3khXNYYLrqEs%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-](https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.redwoods.edu%2Fdelnorte%2FTRiO&data=05%7C01%7CAmber-Atkins%40Redwoods.edu%7Ccce79e43cea6a49ebd79308dbf80a65bd%7C8c90edff0a7243a795683eb28b3c8f82%7C0%7C0%7C638376495773454304%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=W9ZMWZ5n12tIjMCwaCBonTi1P89g28a3khXNYYLrqEs%3D&reserved=0)

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## Veterans Resource Center

The [Veteran's Resource Center](https://www.redwoods.edu/student-services/Home/Vets)  (<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!

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## Admissions deadlines & enrollment policies

### Fall 2025 Dates

- *Classes begin: 08/25/25*
- *Last day to add a class: 08/29/25*
- *Labor Day (all campuses closed): 09/01/25*
- *Last day to drop without a W and receive a refund: 09/05/25*
- *Census date: 09/08/25 or 20% into class duration*
- *Last day to petition to graduate or apply for certificate: 10/30/25*
- *Last day for student-initiated W (no refund): 10/31/25*
- *Last day for faculty-initiated W (no refund): 10/31/25*
- *Veteran's Day Holiday (all campuses closed): 11/11/25*
- *Fall Break and Thanksgiving Holiday: 11/24/25 through 11/28/25*
- *Final examinations: 12/13/25 – 12/19/25*
- *Last day to petition to file P/NP option: 12/19/25*
- *Semester ends: 12/19/25*
- *Grades Due: 12/26/25*
- *Records available for transcript release: approximately 01/02/25*



## 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/20552/pages/student-code-of-conduct-and-disciplinary-procedures?module\\_item\\_id=1118142](https://redwoods.instructure.com/courses/20552/pages/student-code-of-conduct-and-disciplinary-procedures?module_item_id=1118142).) 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.

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## 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/20552/pages/student-code-of-conduct-and-disciplinary-procedures?module\\_item\\_id=1118142](https://redwoods.instructure.com/courses/20552/pages/student-code-of-conduct-and-disciplinary-procedures?module_item_id=1118142))) is available on the College of the Redwoods

we'  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>).

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## Policies for this Class

### Class participation

Lecture and lab are intimately interrelated. The topics you learn about in lecture you see in lab, usually that very week. Labs are divided into "dry" and "wet" labs. Dry labs will be online or virtual activities. Wet labs will actually be "hands-on" activities working with real bacteria. You are assigned specific exercises in your lab handouts to complete and are expected to answer all questions and make all observations and drawings on extra paper. You will also need to submit selfies and/or video recordings of you doing the wet lab activities.

**Lecture Exams:** There are three lecture exams including the lecture final. Exams are not comprehensive and will only cover new material. Exams are timed and you will only have two hours to complete the exam once it has been opened.

**SmartBook Reading Quizzes:** For each chapter assigned, you will complete the SmartBook Reading Quiz. These quizzes are taken on Connect Biology and are designed to test your reading comprehension as you make your way through the chapter.

**Dry Lab Activities:** *You will analyze morphological, biochemical, and environmental data of an unknown bacterium assigned to you by the instructor. You will use these data to identify your unknown bacterium.*

**Virtual Lab Activities:** These lab activities will be conducted online in Connect Biology and are designed to prepare you for the hands-on, wet lab activities.

**Wet Lab Activities:** *You will work independently with a Carolina lab kit to complete 6 activities.*

**Homeworks:** Homeworks are designed to prepare you for the lecture exams and will be assigned prior to each exam. These will be a mix of activities, some using Connect Biology.

**Discussion Board:** There are a total of 6 discussion board topics. You will be required to make an initial post by Friday at midnight of that week. You then will respond to at least two of your fellow classmates by the following Monday at midnight. There are no make ups if you miss the discussion board.

**Microbe Presentation:** *You will work individually to research a microbe and present your findings to the class. Presentations will be given mid-semester and topics covered may be on the final 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.

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## Attendance Policy

This is an online class 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. 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.

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## Academic Integrity and Honor Pledge

As a College of the Redwoods student enrolled in an online class you are expected to conduct yourself with integrity. Please review the [Academic Integrity](https://redwoods.instructure.com/courses/20552/pages/academic-integrity?module_item_id=1118143) ([https://redwoods.instructure.com/courses/20552/pages/academic-integrity?module\\_item\\_id=1118143](https://redwoods.instructure.com/courses/20552/pages/academic-integrity?module_item_id=1118143)) page and then complete the [Syllabus Quiz](https://redwoods.instructure.com/courses/20552/quizzes/121686?module_item_id=1118145) ([https://redwoods.instructure.com/courses/20552/quizzes/121686?module\\_item\\_id=1118145](https://redwoods.instructure.com/courses/20552/quizzes/121686?module_item_id=1118145)) by Monday, August 25th at midnight.

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## Information for this Class

### Required textbooks & other materials

Microbiology is our most expensive course to run in the Biology program. This is because in order to meet the learning outcomes, you the student will work with live bacteria and other materials to culture, analyze, and interpret results. This course meets twice a week in lab, for a total of 6 hours. Although you are taking this class online, you are still expected and required to complete 6 hours of lab material a week in order to meet course learning outcomes. This means that you the student will have the burden to provide your own materials to complete lab activities. We will do this through virtual activities developed by McGraw Hill and available through the textbook. You will also complete hands-on activities, with live bacteria, using a Carolina Lab Kit. Combined these resources will run you around \$330 per student.

 Because this is an online LAB course, it is critical that you begin class with the materials you need:

1. You will also be required to purchase the Microbiology Fundamentals: Clinical Approach Textbook with CONNECT ACCESS approximately \$128.25 through the bookstore or \$102 dollars through the McGraw Hill website (link will be available in Canvas). You will need to have access by the second week of classes.
  2. You will be required to purchase a lab kit from Carolina Biological for approximately \$201 in order to meet the course learning objectives for this course. You will need to have the lab kit purchased and in your possession by March 24th. I will provide you with information once the semester starts.
  3. Additional supplies (e.g., bleach, alcohol, dish soap, etc.) to complete at-home lab activities.
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## Canvas Information

Please see [Online Orientation Letter \(https://redwoods.instructure.com/courses/20552/pages/biol-2-online-orientation-letter\)](https://redwoods.instructure.com/courses/20552/pages/biol-2-online-orientation-letter) 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) (<mailto:its@redwoods.edu>) or call 707-476-4160
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## Technology skills, requirements, and support

Please see [Online Orientation Letter \(https://redwoods.instructure.com/courses/20552/pages/biol-2-online-orientation-letter\)](https://redwoods.instructure.com/courses/20552/pages/biol-2-online-orientation-letter) for more information

- 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)  (<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)  (<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) (<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.
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## Course Schedule

Each week a new learning topic 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.

<b>Week</b>	<b>Begin Date Tuesday</b>	<b>End Date Monday</b>	<b>Lecture Topic</b>
1	August 26, 2025	September 1, 2025	Topic 1: Intro to Microbiology Chapter 1 <b>Virtual Lab Activity 1 - Virtual Labs Tutorial &amp; Ubiquity of Microbes</b> <b>Dry Lab 1: Ubiquity of Microorganisms</b>
2	September 2, 2025	September 8, 2025	Topic 2: Cell Theory Chapter 3 <b>Virtual Lab Activity 2 - Aseptic Techniques</b> <b>Dry Lab 2: Media, Aseptic Technique, Colony Isolation</b>
3	September 9, 2025	September 15, 2025	Topic 3: Eukaryotes Chapter 3 & 6 <b>Virtual Lab Activity 3 - Isolation Techniques</b>



			<b>Dry Lab 3: Growth Characteristics</b>
4	September 16, 2025	September 22, 2025	<p>Topic 4: Pathogens</p> <p>Chapter 5</p> <p><b>Virtual Lab Activity 4 - Staining Techniques</b></p> <p><b>Dry Lab 4: Unknowns and Staining Techniques</b></p>
5	September 23, 2025	September 29, 2025	<p>Topic 5: Microbial Biochemistry</p> <p>Chapter 7</p> <p><b>Virtual Lab Activity 5 - Microbial Growth</b></p> <p><b>Dry Lab 5: Environmental Factors Influencing Growth</b></p>
6	September 30, 2025	October 6, 2025	<p><b>Lecture Exam I</b></p> <p>Topic 6: Microbial Metabolism</p> <p>Chapter 8</p> <p><b>Virtual Lab Activity 6 - Biochemical Testing I</b></p>



			<b>Dry Lab 6: Selective and Differential Media I</b>
7	October 7, 2025	October 13, 2025	<p>Topic 7: Microbial Growth &amp; Bacterial Diversity</p> <p>Chapters 4 &amp; 9</p> <p><b>Virtual Lab Activity 7 - Biochemical Testing II</b></p> <p><b>Dry Lab 7: Differential Media II</b></p>
8	October 14, 2025	October 20, 2025	<p>Topic 8: Microbial Genetics</p> <p>Chapter 11</p> <p><b>Virtual Lab Activity 8 - Biochemical Testing III</b></p> <p><b>Dry Lab 8: Differential Media III</b></p>
9	October 21, 2025	October 27, 2025	<p>Topic 9: Molecular Biology Techniques</p> <p>Chapter 12</p> <p><b>Virtual Lab Activity 9 - Unknowns</b></p> <p><b>Wet Lab 1: Lab Safety Plan</b></p>



10	October 28, 2025	November 3, 2025	<p><b>Lecture Exam II</b></p> <p>Topic 10: Control of Microbial Growth</p> <p>Chapter 13</p> <p><b>Wet Lab 2: Aseptic Technique and Use of Media</b></p>
11	November 4, 2025	November 10, 2025	<p>Topic 11: Antimicrobial Drugs</p> <p>Chapter 14</p> <p><b>Wet Lab 3: Isolation Streak Plate Technique</b></p>
12	November 11, 2025	November 17 2025	<p>Topic 12: The Unknown</p> <p><b>Wet Lab 4: Use of Selective and Differential Media</b></p>
13	November 18, 2025	November 24, 2025	<p>Topic 13: Antibiotic Resistance/ Pathogenicity</p> <p>Chapter 15</p> <p><b>Wet Lab 5: Biochemical Tests in Microbiology</b></p>



*	<b>November 25, 2025</b>	<b>Dec 1, 2025</b>	<b>Fall Break / Thanksgiving Holiday</b> <b>No Class Meeting</b>
14	December 2, 2025	December 8, 2025	Topic 14: Disease and Epidemiology/ Innate Immunity Chapter 16 & 17 <b>Wet Lab 6: Kirby-Bauer Method</b>
15	December 9, 2025	December 15, 2025	Topic 15: Adaptive Immunity Chapter 18 <b>No Lab Activity - Work on Unknown Project</b>
16	December 16, 2025	December 19, 20245	<b>Unknown Report Due</b> <b>Final Lecture Exam</b>

