SCOTTSDALE COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

Course Information

Semester & Year:	Fall 2023
Course Title:	Microbiology
Course Prefix & Number:	BIO205
Section Number:	20714, 20713, 35273
Credit Hours:	4.0
Start Date:	08/21/23
End Date:	10/13/23
Room Number:	N/A
Meeting Days:	On Your Time online
Meeting Times:	On Your Time online

Course Format

Study of microorganisms and their relationship to health, ecology, and related fields.Study of microorganisms and their relationship to health, ecology, and related fields.The course format for this course is On Your Time online. This is an 8-week course and students are expected to follow the class schedule in order to successfully complete this course.

Instructor Information

Instructor:	Anne Cedergren-Healy
Email:	anne.cedergren-healy@scottsdalecc.edu
Phone:	Please message me through Canvas
Office Location:	NS 118. I am only on campus on certain days/times. Please Canvas message me if you wish to meet in person.
Office Hours:	Webex (Canvas) Monday-Friday, 10:30 a.m. - 11:30 a.m.

Course Description

Study of microorganisms and their relationship to health, ecology, and related fields.

Prerequisites

Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.

Course Competencies

1. Identify the significant and critical contributions to microbiology.
2. Use significant and critical contributions to microbiology to illustrate and explain the collaborative nature of science.
3. Identify structural characteristics identifying the major groups of microorganisms.
4. Compare and contrast prokaryotic and eukaryotic cells.
5. Compare and contrast viruses and cells.
6. Compare and contrast the physiology and biochemistry of the various groups of microorganisms.
7. Describe the modes of bacterial and viral reproduction and proliferation.
8. Describe the replication of genetic information, protein synthesis, and mutation in bacteria and viruses.
9. Compare and contrast microbial methods of genetic recombination including transformation, conjugation, and transduction.
10. Describe techniques and applications of genetic engineering and discuss their ethical implications.
11. Describe modes of regulation of bacterial gene expression.
12. Describe and compare the effectiveness of physical and chemical methods of microbial control.
13. Describe, compare, and contrast innate and acquired immune responses.
14. Describe the roles and actions of phagocytes and lymphocytes in the control of infection.
15. Describe Immunologic disorders.
16. Describe the effect of immunization on the primary and secondary immune responses to pathogens.
17. Describe the symptoms, associated pathogen, transmission, course, treatment, and prophylaxis of common infectious diseases.

Texts and Course Materials

Our text is OpenStax Microbiology, which is available for free at https://openstax.org/details/books/microbiology

All lab materials are available free online.

Course Technologies

View the Accessibility Statements HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy"& HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" HYPERLINK "https://www.scottsdalecc.edu/students/elearning/accessibility-privacy" Privacy Policies of technologies used in this course.

Maricopa Systems

This course uses key Maricopa systems for course management and communication.

- Canvas Learning Management System
- Student Maricopa Gmail Account
- Maricopa Open Educational Resource Learning System (MOER)

Synchronous Communication Tools

This course implements the use of web conferencing and/or other synchronous course tools only for Office Hour or individual student conferences with the instructor.

- Webex (link is in Canvas)

Streaming Media/Audio/Video Tools

This course uses webcasting, lecture capture systems, YouTube, and/or other streaming media services.

- YouTube
- ScreenPal

Student Assignment Tools

This course requires students to participate in or submit assignments using desktop or cloud-based applications.

- Google Products
- Microsoft Office 365
- Mac tools such as Pages are also accepted
- Adobe pdf files are also accepted

Plagiarism Checker Tool (Turnitin)

Turnitin is a plagiarism check tool that matches text to a vast database of sources including the internet, published works, commercial databases and student work submitted to Turnitin in institutions internationally. Students must submit designated papers to Turnitin when instructed. Information and instructions for Turnitin are provided in the course. For your reference, read the Turnitin Terms of Service.

Course Policies

The following are policies specific to this course. Students are also responsible for the college policies included on the Student Regulations page of the Maricopa Community College District website.

Generative Artificial Intelligence (AI) Policy

Opening Statement Regarding Generative Artificial Intelligence (AI)

The World Economic Forum defines generative AI as “a category of artificial intelligence (AI) algorithms that generate new outputs based on the data they have been trained on. Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI creates new content in the form of images, text, audio, and more.”

Some examples of generative AI tools include but are not limited to: ChatGPT, Google Bard, Microsoft Copilot, Stable Diffusion, GrammarlyGo, and Adobe Firefly.

No Generative Artificial Intelligence (AI) Allowed

In this class, all work submitted must be your own. The use of generative AI tools will be considered academic misconduct (see Administrative Regulation 2.3.11 1.B(b)) and will be treated as such. If you are unsure if the tool or website you are using is a generative AI tool, please contact the instructor for further clarification before using the tool or website.

Grading Standards & Practices

Grade Scale

Letter Grade	Points Range
A	90 – 100%
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	0 – 59%

Assignments

Assignment Name	Points	Percent of Grade
Lab Activities		
Canvas Quizzes		
Library Checkpoint worksheets	50	
Library Research paper	50	
TOTAL:		

There is no extra credit available. There are no retakes. Points in this course are based upon your lab activity points, quiz points, and library checkpoints and research paper. Quizzes are open note, but are timed and you only get one attempt, so allowing time to study your notes is essential to passing.

I only give incomplete grades under very specific circumstances. Heavy work schedules do not qualify. You enrolled in this course with the understanding that at least 23 hours per week would be required to complete it on time.

Response Time

Students can expect a response time on the same day for the instructor to respond to messages sent via the Canvas Learning Management System or email for messages sent Monday - Friday. Messages sent on weekends may not be answered until the following Monday morning. Students can expect lab assignments and the library research paper to be graded within 1 week of the due date.

Attendance Policy

Regular attendance in this On Your Time online course means submitting lab work and completing weekly quizzes by the deadlines posted in Canvas. Please notify me

immediately if you become ill or have another emergency and are not able to complete activities for the week. If you do not submit anything by that week's deadline you will receive a Canvas message warning you of excessive absences. Missing two consecutive weeks will result in withdrawal from the course for excessive absences and a W (withdrawn passing) will appear on your transcript. Multiple non-consecutive absences adding up to 2 weeks will also trigger withdrawal from the course. The number one reason students fail this course is failure to keep up or being unrealistic about how much time they can devote to studying.

Instructional Contact Hours (Seat Time)

This is a four (4) credit-hour course. Plan to spend at least 23 hours on microbiology course content each week. Please be realistic about the amount of time you will be able to devote to this course! My colleague, Professor Wes Swenson, teaches our 16-week On Your Time online microbiology which may be a better option if you have a heavy work schedule.

Online Tutoring

SCC's tutors are available online to help with your courses. You may work with an SCC tutor remotely using Google Meet, your phone, or email. Visit the Tutoring HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring"& HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" HYPERLINK "https://www.scottsdalecc.edu/students/tutoring" Learning Centers page for detailed information on the five learning center’s hours and procedures.

Alex in the Natural Science Tutoring Center is a former student of mine and I keep him updated as to what we are covering each week. I highly recommend meeting with him online for help if you prefer peer tutoring.

Cross-Listed Sections

The lab sections of this course are combined with the lecture section on Canvas. Each week's lab activity is labeled Lab Activity in the lecture modules of our course.

Learning Tools and Your Privacy and Security

SCC utilizes a variety of software applications and web-based tools operated by third party vendors to support student learning. To allow student access to the application, site or tool, certain identifiable information may be required to establish a user name or password, and submit work and/or download information from these tools. Inherent with all internet-based tools, there is a risk that individuals assume when electing to use these tools, as they may place information at risk of disclosure.

To use learning tools responsibly, please observe all laws and the Maricopa Community College District Student Conduct Code, such as copyright infringement, plagiarism, harassment or interference with the underlying technical code of the software. As a student using a learning tool, you have certain rights. Any original work that you produce belongs to you as a matter of copyright law. You also have a right to the privacy of your educational records. Your contributions to learning tools constitute an educational record. By using the tool, and not taking other options available to you in this course equivalent to this assignment that would not be posted publicly on the internet, you consent to the collaborative use of this material as well as to the disclosure of it in this course and potentially for the use of future courses.

Students are responsible for the information contained in this syllabus, the Syllabus page in your Canvas course and the **College Policies & Student Services** page found in the First Steps module of your Canvas course. Students will be notified by the instructor of any changes in course requirements or policies.