

BIOL3375, Dental Microbiology, Syllabus Version 1 (3/31/26). **Subject to Change.**

Course Information

Course Number/Section	BIOL 3375
Course Title and Term	Dental Microbiology, Fall 2026
Days & Times	MW 1-2:15 pm
Location	SLC 1.204

Professor Contact Information

Professor	Dr. Kelli Palmer
Email Address	kelli.palmer@utdallas.edu
Email Policy	I typically respond to emails 8-5 pm on weekdays.
Office Hours	Microsoft Teams or in person: By appointment.

Course Pre-requisites: (BIOL 2311 or equivalent) and (BIOL 2312 or equivalent) and (BIOL 2281 or BIOL2V81 or equivalent).

Course Description

Fundamentals of microbiology using microbial model systems relevant to dentistry. Includes bacteria, fungi, and viruses relevant to dental microbiology. Incorporates case studies and primary scientific literature to emphasize modern dental microbiology challenges and applications.

Student Learning Objectives/Outcomes

Outcomes: Upon completion of this course, students should be able to:

1. Describe and analyze the following principles of microbiology, particularly as they relate to the practice of dentistry: microbial cell structure and function, growth, metabolism, genetics, and interaction with multicellular hosts.
2. Describe and critically analyze scientific literature and case studies in dental microbiology, particularly as related to antisepsis, infection and antimicrobial therapies, and decontamination of surfaces.
3. Formulate hypotheses, design experiments, and interpret experimental data relevant to the field of dental microbiology.

Required Books and Materials

[Samaranayake's Essential Microbiology for Dentistry](#), 6th Edition. ISBN: 9780443117213. Copyright: 2025. Publication Date: 04-10-2024. Page Count: 424. Imprint: Elsevier. List Price: \$86.99.

Other required materials will be posted on eLearning.

Academic Calendar **Subject to change. More detail will be added closer to the fall semester**

Class day	Date	Topic
1	Week of Aug 24	PART 1 GENERAL MICROBIOLOGY
2	Week of Aug 24	PART 1 GENERAL MICROBIOLOGY
3	Week of Aug 31	PART 1 GENERAL MICROBIOLOGY
4	Week of Aug 31	PART 1 GENERAL MICROBIOLOGY

5	Week of Sept 7	PART 1 GENERAL MICROBIOLOGY
6	Week of Sept 7	PART 2 BASIC IMMUNOLOGY
7	Week of Sept 14	PART 2 BASIC IMMUNOLOGY
8	Week of Sept 14	PART 2 BASIC IMMUNOLOGY
9	Week of Sept 21	PART 3 MICROBES OF RELEVANCE TO DENTISTRY
10	Week of Sept 21	PART 3 MICROBES OF RELEVANCE TO DENTISTRY
11	Week of Sept 28	PART 3 MICROBES OF RELEVANCE TO DENTISTRY
12	Week of Sept 28	PART 3 MICROBES OF RELEVANCE TO DENTISTRY
13	Week of Oct 5	PART 3 MICROBES OF RELEVANCE TO DENTISTRY
14	Week of Oct 5	PART 4 SYSTEMIC INFECTIONS OF RELEVANCE TO DENTISTRY
15	Week of Oct 12	PART 4 SYSTEMIC INFECTIONS OF RELEVANCE TO DENTISTRY
16	Week of Oct 12	PART 4 SYSTEMIC INFECTIONS OF RELEVANCE TO DENTISTRY
17	Week of Oct 19	PART 4 SYSTEMIC INFECTIONS OF RELEVANCE TO DENTISTRY
18	Week of Oct 19	PART 5 ORAL MICROBIOTA AND ORAL INFECTIONS
19	Week of Oct 26	PART 5 ORAL MICROBIOTA AND ORAL INFECTIONS
20	Week of Oct 26	PART 5 ORAL MICROBIOTA AND ORAL INFECTIONS
21	Week of Nov 2	PART 5 ORAL MICROBIOTA AND ORAL INFECTIONS
22	Week of Nov 2	PART 5 ORAL MICROBIOTA AND ORAL INFECTIONS
23	Week of Nov 9	PART 5 ORAL MICROBIOTA AND ORAL INFECTIONS
24	Week of Nov 9	PART 6 CROSS-INFECTION AND CONTROL
25	Week of Nov 16	PART 6 CROSS-INFECTION AND CONTROL
26	Week of Nov 16	PART 6 CROSS-INFECTION AND CONTROL
27	Week of Nov 30	PART 6 CROSS-INFECTION AND CONTROL
28	Week of Nov 30	Research project pitches
29	Last week	Research project pitches and class wrap-up

Grading Policy –

Assessments for this course were designed by UT-Dallas undergraduate students from a Short-Term Working Group organized by the Center for Teaching and Learning.

	<u>Percentage Points</u>
Daily participation questions at the beginning of each class	10%
10 minute presentation on a pathogen associated with dentistry (graded by rubric that will be provided to students in advance)	20%
Quizzes (6 quizzes given, drop 1)	20%
One page research project pitch (performed in groups of 2) -Initial pitch to another group (ungraded) -1 page rough draft for feedback from instructor (10%) -Final draft (20%) -Pitch presentation to the class (one slide allowed) (10%)	40%
Patient-dentist role-playing videos on difficult topics (2, each worth 5% of grade, performed in groups of 2) -Submitted online and graded by rubric that will be provided to students in advance..	10%

Good writing practices. If you have any questions about appropriate use of source material, ask me and I will help you. Some general rules to remember are: (1) Don't copy your classmates' writing. (2) Don't copy/paste directly from sources. Instead, synthesize information in your own words. (3) Direct quotations are used very rarely in scientific writing, and you should not use them in this course for your assignments.

• Grading scale

Grade	Percentage	Grade	Percentage	Grade	Percentage
A+	97.00–100.00	A	93.00–96.99	A–	89.50–92.99
B+	87.00–89.49	B	83.00–86.99	B–	79.50–82.99
C+	77.00–79.49	C	73.00–76.99	C–	69.50–72.99
D+	67.00–69.49	D	63.00–66.99	D–	59.50–62.99
F	0.00–59.49				

Class Materials

The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course; however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved AccessAbility Resource Center accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Class Attendance

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

Class Participation

Regular class participation is expected. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Note: the instructor may choose to include one or neither of the following statements:

- (a) Texas Senate Bill 17, the recent law that prohibits diversity, equity, and inclusion programs and activities at public universities in Texas, does not in any way apply to academic course instruction. Students should not feel the need to self-censor or limit their participation in academic courses pertaining to topics of race and racism, structural inequality, LGBTQ+ issues, or diversity, equity, and inclusion, and related topics.
- (b) Texas Senate Bill 17, the recent law that prohibits diversity, equity, and inclusion programs and activities at public universities in Texas, does not in any way apply to academic course instruction.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the AccessAbility Resource Center has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved AccessAbility Resource Center accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

Accommodations for Students with Disabilities

Please review [the section](#) within the UT Dallas Syllabus Policies and Procedures webpage.

Academic Support Resources

Please visit the [Academic Support Resources](#) page to view the University's academic support resources for all students.

UT Dallas Syllabus Policies and Procedures

Please visit the [Syllabus Policies](#) page to view the University's policies and procedures segment of the course syllabus.

Please review the catalog sections regarding the [credit/no credit](#) or [pass/fail](#) grading option and withdrawal from class.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.