

Biology 431: Medical Microbiology

Spring 2019

Lecture: Wednesday, & Friday 9:30 am-10:45 am

Room: North Science 108

Lab: Wednesday, & Friday 11:00 am - 1:50 pm

Room: South Science 307

Instructor: Dr. Nazzy Pakpour

Instructional Technician: Sharon Horgan

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Office hours: Wednesday 2-4 pm or by appointment **Room:** N418

Prerequisites: You MUST have BIOL 3405/BIOL 330 or upper division equivalent from a 4-year institution. If you have not completed the required prerequisite you will be dropped from the course.

Required materials:

- (1) Medical Microbiology Laboratory Manual
 - Available at Fedex (22308 Foothill Blvd, Hayward, CA 94541, 510-733-6538)

- (2) Blue or black sharpie permanent marker

Course Information: There will be two lectures per week. All powerpoint presentations will be made available on Blackboard after lecture.

Grading: Blackboard will provide an **ESTIMATE** of your scores as the class progresses, final grades will be determined based on my grade sheet, not blackboard. Grades will be determined based off a standard grading scale, **no curve**. Your grade is composed of 50% Lecture and 50% Lab.

LECTURE 50%

Exams (4)	400 pts	400
Quizzes (1)	20 pts	20

Extra Credit 25

Total: 420

LAB 50%

Lab practical (2)	100	200
Unknown (1)	80	80
Flow charts (10)	5	50
Skills test (12)	5	60
Quiz (1)	20	20
Good Citizen (1)	10	10

Total: 420

Good Citizen: Students will be awarded 10 pts for good citizenship in lecture and in lab *unless* they are disruptive or disrespectful (cell phone use, texting, arriving late (more than 5 min), talking in class, etc).

Quizzes: Will be short answer and will cover material in the previous 3-4 lectures or labs. Make-up quizzes will not be provided, no exceptions.

Exams: Will consist of 50 multiple-choice (50 pts) and short answer/fill-in (50 pts) questions, exams will cover all **new** material since the previous exam. They are **NOT** cumulative.

Extra credit: A **maximum** of 20 points extra credit is available in the class. There will be 1-2 point opportunities in lecture. In lab, any group that correctly determines the species they have been provided will receive 1 pt.

Lab practical: You will have 3 min at 25 stations testing your knowledge of the various techniques, medias, and tests we have performed in lab. The practicals will be 60 multiple choice and 40 short answer and are not cumulative. Flow charts will be allowed during the lab practical. All flow charts must be turned in to me for approval and will be returned to students the day of the practical.

Skills tests: Will be unannounced and will test commonly used techniques covered in previous labs such as streaking for isolate colonies, gram stain, nitrate test, microscope use, and pipet use.

Unknown: Identify the TWO bacterial species in an unknown sample you are given using the various tests and procedures that you have been taught in lab. Unknowns are done individually, are open book/notes, but no computer/cell phones or talking is allowed.

Flow charts: When we finish with each genus of bacteria, students will construct a flow chart for identifying the different species of bacteria within that genus. You will be allowed to use these flow charts on the lab practicals.

CLASS RULES: Audio recording of lectures is allowed and video of lectures will available via East Bay Replay or on youtube. Make-up exams are given only in unusual circumstances, with documentation, and at the discretion of the instructor.

LABORATORY RULES: Lab attendance is **MANDATORY**. More than 2 absences will result in an automatic failure of the course. Please arrive on time and stay for the entire lab session, or until excused by the instructor. If you are more than 5 minutes late you lose good citizenship score. Safety/clean-up are critical lab components and any infractions will be deducted from your good citizenship score.

ACCOMMODATIONS FOR THOSE STUDENTS WITH DISABILITIES: Please contact me as soon as possible if you have a documented disability and wish to discuss academic accommodations. Students with disabilities needing accommodation should also speak with the Accessibility Services.

STANDARD GRADING SCALE: all grades are rounded to the nearest full percentage, there is NO CURVE in this class, I DO NOT bump grades under any circumstances.

Letter	Grade
A	93%-100%
A-	90%-92%
B+	87%-89%
B	83%-86%
B-	80%-82%
C+	77%-79%
C	73%-76%
C-	70%-72%
D+	67%-69%
D	63%-66%
D-	60%-62%
F	0%-59%

			Lecture
WEEK 1	M	1-Jan	New Year Holiday
	W	3-Jan	Introduction & Immunity
	F	5-Jan	Staphylococcus
WEEK 2	M	8-Jan	Streptococcus (online)
	W	10-Jan	Enterococcus, QUIZ #1
	F	12-Jan	Bacillus
WEEK 3	M	15-Jan	MLK Holiday
	W	17-Jan	Listeria/Erysipelothrix
	F	19-Jan	Coryne & Myco
WEEK 4	M	22-Jan	EXAM 1 (in class)
	W	24-Jan	Enterobacteriaceae
	F	26-Jan	Enterobacteriaceae
WEEK 5	M	29-Jan	Enterobacteriaceae (online)
	W	31-Jan	Vibrio, Plesio, Aero
	F	2-Feb	NO LECTURE
WEEK 6	M	5-Feb	Campy & Helicobacter (online)
	W	7-Feb	Pseudomonas
	F	9-Feb	Neisseria
WEEK 7	M	12-Feb	EXAM 2 (in class)
	W	14-Feb	Haemophilus
	F	16-Feb	Legionella & Bordetella
WEEK 8	M	19-Feb	Brucella & Francis (online)
	W	21-Feb	Clostridium, QUIZ #2
	F	23-Feb	Anerobic
WEEK 9	M	26-Feb	Anaerobic (online)
	W	28-Feb	Treponema
	F	2-Mar	Mycoplasma
WEEK 10	M	5-Mar	Chlamydia (online)
	W	7-Mar	TBD
	F	9-Mar	NO LECTURE

M 12-Mar

EXAM 3 (final)

	Lab	chart
T/W	Introduction & basic skills test	
R/F	Lab 1a Staph	
T/W	Lab 1b Staph,	
R/F	Lab 1c Staph, Lab 2a Strep, flow chart	
T/W	Lab 3a Bacillus, Lab 2b Strep	1
R/F	Lab 3b Bacillus, Lab 4a Coryne	2
T/W	Lab 3c Bacillus, Lab 4b Coryne	
R/F	Lab 4c Coryne, Lab 5a Myco	3
T/W	Lab 5b Myco, Review	4, 5
R/F	PRACTICAL 1	
T/W	Lab 6a Entero	
R/F	Lab 6b Entero, Lab 7a Vibrio	
T/W	Lab 6c, Lab 7b, Lab 8a nonferm	
R/F	Lab 7c Vibrio, Lab 8b non-ferm	6
T/W	Lab 8c non ferm, Lab 9a Neis	7
R/F	Lab 9b Neis, Unk day 1	8
T/W	Unk day 2, Lab 10a Clost	9
R/F	Unk day 3, Lab 10b, Lab 11a Haem	
T/W	Lab 11b Haem, Demos, Review	10
R/F	PRACTICAL 2	