

# MICROBIOLOGY 202

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Fall 2010

Dr. Tina Salmassi

La Kretz 315

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OH: M/W 11:30am-12:45pm

Teaching Assistants:

Marcela Leyva OH: \_\_\_\_\_

Yanett Roman \_\_\_\_\_

Amanda VanLeersum \_\_\_\_\_

## COURSE INFORMATION

This laboratory course is designed for students majoring in a health related field and, in conjunction with the lecture course Microbiology 201, fulfills the microbiology requirement of the California State University, Los Angeles nursing program.

Prerequisite: Biology 100B or 200B

Co-requisite: Microbiology 201

Manual: Laboratory Exercises for Microbiology 202

Required Supplies: laboratory coat, microscope slides, Sharpie pen

\*Lab coats are required to participate in this course. No exceptions.

## LEARNING OUTCOMES

This course will provide a basic understanding of:

- the morphology of fungi and bacteria
- the procedures used to grow and study bacteria
- how bacterial growth is controlled
- how the effectiveness of antibiotics, disinfectants, and antiseptics is evaluated
- how bacterial contamination of water is evaluated
- the procedures used in clinical laboratories to isolate and identify bacteria that are pathogenic to humans

## COURSE POLICIES

Attendance: Preparation (reading the appropriate material before coming to class) and consistent attendance are essential to success in this course.

Academic Honesty: Students are expected to read and abide by the University's Academic Honesty Policy, which can be found at [www.calstatela.edu/academic/senate/handbook/ch5a.htm](http://www.calstatela.edu/academic/senate/handbook/ch5a.htm). Students who violate this policy will be subject to disciplinary action, and may receive a failing grade in the course for a single violation.

ADA Policy: Reasonable accommodation will be provided to any student who is registered with the Office of Students with Disabilities and requests needed accommodation.

## GRADING

Points can be earned as follows:

Quiz 1	10
Quiz 2	20
Pop Quiz(2)	20

Midterm	100
Quiz 3	20
Report 1	20
Report 2	20
Final	100

No make up examinations, quizzes, unknowns or extra credit options are available. A plus/minus grading system will be used. Course grades will be assigned according to the percentage earned out of total possible points available as follows:

92-100	A	90-91	A-		
87-89	B+	82-86	B	80-81	B
77-79	C+	72-76	C	70-71	C-
67-69	D+	62-66	D	60-61	D-

### LABORATORY SCHEDULE

Week	M/W Labs	T/R Labs	Topic	Other
0		9/23	NO TOPIC	
1	9/27	9/28	Check In Ex. 1: Oil Immersion Microscopy Ex 2: Brightfield Microscopy/Protozoa	
1	9/29	9/30	Ex. 3: Yeasts and Molds Ex. 4: Bacteria	Quiz 1
2	10/4	10/5	Ex. 4: Bacteria (2 <sup>nd</sup> Period) Ex. 5: Aseptic Techniques Ex. 6: Smear Preparation Ex. 7: Simple Staining	
2	10/6	10/7	Ex. 8: Negative Staining Ex. 9: Gram Staining	
3	10/11	10/12	Ex. 10: Spore Staining Ex. 11: Acid Fast Staining Ex. 12: Capsular Staining	
3	10/13	10/14	Ex. 13: Pure Cultures Ex. 14: Plate Counts	
4	10/18	10/19	Ex. 13: Pure Cultures (2 <sup>nd</sup> Period) Ex. 14: Plate Counts (2 <sup>nd</sup> Period) Ex. 15: Effect of Oxygen Ex. 16: Effect of Temperature Ex. 17: Effect of pH	Quiz 2
Week	M/W Labs	T/R Labs	Topic	Other
4	10/20	10/21	Ex. 13: Pure Cultures (3 <sup>rd</sup> Period) Ex. 15: Effect of Oxygen (2 <sup>nd</sup> Period) Ex. 16: Effect of Temperature (2 <sup>nd</sup> Period) Ex. 17: Effect of pH (2 <sup>nd</sup> Period) Ex. 18: Ultraviolet Light Ex. 19: Alcohol Ex. 20: Antiseptics and Disinfectants	
5	10/25	10/26	Ex. 18: Ultraviolet Light (2 <sup>nd</sup> Period) Ex. 19: Alcohol (2 <sup>nd</sup> Period)	

			Ex. 20: Antiseptics and Disinfectants (2 <sup>nd</sup> Period) Ex. 21: Antimicrobial Sensitivity Testing Ex. 22: Minimal Inhibitory Concentration	
5	10/27	10/28	Ex. 21: Antimicrobial Sensitivity Testing (2 <sup>nd</sup> Period) Ex. 22: Minimal Inhibitory Concentration (2 <sup>nd</sup> Period) Ex. 23: Radial Immunodiffusion	Midterm Exam
6	11/1	11/2	Ex. 23: Radial Immunodiffusion (2 <sup>nd</sup> Period) Ex. 24: Enzyme-linked Immunosorbent Assay Ex. 25: Simulated ABO and Rh Blood Typing	
6	11/3	11/4	Ex. 26: Staphylococci Ex. 27: Unknown I	
7	11/8	11/9	Ex. 26: Staphylococci (2 <sup>nd</sup> Period) Ex. 27: Unknown I (2 <sup>nd</sup> Period)	
7	11/10	11/11	NO CLASS	
8	11/15	11/16	Ex. 26: Staphylococci (3 <sup>rd</sup> Period) Ex. 27: Unknown I (3 <sup>rd</sup> Period) Ex. 28: Streptococci	
8	11/17	11/18	Ex. 26: Staphylococci (4 <sup>th</sup> Period) Ex. 27: Unknown I (4 <sup>th</sup> Period) Ex. 28: Streptococci (2 <sup>nd</sup> Period) Ex. 29: Unknown 2	Quiz 3 Report 1 Due
9	11/22	11/23	Ex. 29: Unknown 2 (2 <sup>nd</sup> Period) Ex. 30: Evaluation of Water	
9	11/24	11/25	NO CLASS	
10	11/29	11/30	Ex. 29: Unknown 2 (3 <sup>rd</sup> Period) Ex. 30: Evaluation of Water (2 <sup>nd</sup> Period)	
10	12/1	12/2	Ex. 29: Unknown 2 (4 <sup>th</sup> Period) Ex. 30: Evaluation of Water (3 <sup>rd</sup> Period)	
11	12/6		Final Exam 8:30-10:00 M/W morning section	Report 2 Due (all sections)
	12/6		Final Exam 1:30-4:00 M/W afternoon section	
	12/7		Final Exam 1:30-4:00 T/R afternoon section	