

Biology 211 Fundamentals of Microbiology
Schedule No: 2036778

Classroom: GMCS 333
Time: 0800-0850 Mon & Wed

Instructor

Rick Bizzoco, Advanced degrees in Microbiology with Clinical Postdoctoral experience in two medical schools; professional experience working in a Microbiology Clinical Laboratory in a large hospital in Long Beach, CA. This included training MDs in Clinical Microbiology.

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Phone: no phone messages

Whenever communicating with me by email, please write Bio 211 in the subject line. This subject heading allows me to separate your email from junk mail. I receive many messages by email each week. Email is not an electronic "office hour."

Office Hours: Monday 11-noon or by appointment

To schedule an appointment outside office hours, please contact me before or after class or in the period between the two lecture hours by email and again write "Bio 211" in the subject line.

Course Description:

Biology 211 (Fundamentals of Microbiology lecture) is a 2 unit lecture course that introduces students to the fundamental aspects of microbiology, with an emphasis on the interactions between microbes and humans. The lecture topics include cell structure and function, physiology, microbial diversity, genetics, reproduction, how microbes cause disease, and host-parasite relationships. This course is designed for nursing, physical therapy, food and nutrition majors. It is **not** for microbiology majors.

Basic laboratory methods, procedures used by microbiologists are covered in Biology 211L, which can be taken concurrently or after completing Biology 211.

Biol 211. Fundamentals of Microbiology (2)

Prerequisites: Biology 203 and 203L (formerly 201A); or Biology 100 and Chemistry 100 or 102 or 130 (or Chemistry 200). Note: if you do not have the prerequisites, you will be dropped from the course by the computer.

Pre-requisites: Biology 203 and 203L, or Biology 100 and Biology 212; Chemistry 100, 102 or 130. Note: if you do not have the pre-requisites, you will be dropped from the course by the computer.

Required Materials:

Tortora, Funke, Case, *Microbiology*, an introduction. 10th Edition (earlier editions may be used

but the page numbers differ and some material may be missing. It is your responsibility, not anyone else's to know what differences might exist between 9th and 10th and the just printed (January 19, 2012) 11th editions if you use anything other than the 10th edition.

Course Objectives:

Once you complete this course, you should have a clear understanding of the following:

1. The importance of microorganisms to our global society.
2. The structure and function of cells, their metabolism, how they grow and divide.
3. The tools and methods that are used to classify and identify microbes as well as those used in biotechnology to develop products.
4. Beneficial and detrimental host-microbe interactions.
5. The role of the immune system in the host response when challenged by microbes.
6. The contributions that microbes make to the environment and society in terms of geochemical cycles, remediation, and food production.
7. The use of antibiotics to treat various microbial infections.

Blackboard Website: Located at <https://blackboard.sdsu.edu/webapps/login>
Your user login name is your Red ID number and your password.

Studying for the course.

1. Take good notes, or record the lectures and compare your notes to those of others. About 75% (or higher) of the exam will come from lecture materials, with the remainder from the textbook or associated materials (Textbook CD). If you miss a class, get the notes or recording from someone else.
2. Make sure you keep up-to-date with the reading. If we skip textbook material, for example, some of Chapter 2, I will let you know that you will not be responsible for this material. You are **not** responsible for the entire Chapter 2, just what is listed in the syllabus, pp. 34-49.
3. Form study groups - I find that these could be helpful, particularly in clearing up confusion and with memorization of terms (You can quiz each other). Study groups do not guarantee success. Learning the material provides you with success.
4. Feel free to use the objectives from each chapter as guidelines for studying. I will be using these when I write the lectures and the exams. Look at practice exam questions placed on Blackboard. Use an approach that works for you.
5. Use the CD that comes with the textbook. Take the chapter tests/quizzes that come with each chapter. You might occasionally see questions from the CD on your exams.
6. Take the test at the end of the chapters in the textbook; some of these questions might appear on your exams.

Exams: There will be three multiple choice exams (Exam I1, Exam I2, Final Exam), each with fifty questions and each exam worth 100 points. You will need a green 099B or PO99B form (Scantron answer sheet) for each exam. The answer sheets O99B and PO99B are identical, only the numbers differ.

Make-up exams

There will be make-up exams for reasonable excuses. If you miss an exam with a reasonable excuse, a make up exam will be arranged. There will be three exams, as stated above.

Special Accommodations

Please see me if you have a verifiable disability so that DSS can accommodate your exam needs (For the lab, discuss the matter with your TA.).

Academic Honesty

Students are expected to be honest and ethical at all times in their quest of academic goals. There is “zero tolerance” for academic dishonesty. This includes:

- Unauthorized assistance on an examination, quiz, or any other test.
- Plagiarism (to take and pass off as one’s own work, the work or ideas of another).
- Any unauthorized access of an instructor’s account;
- Any other serious violation of academic integrity identified by the instructor.

If there is evidence of cheating on any test, those involved will receive no credit on the item. The lecturer and appropriate lab instructors proctoring the exam will meet with those involved and students will not be allowed to sit together during subsequent exams (for Biology 211). Further action will be taken at the discretion of the instructor. This may result in review of the incident by the Center for Student Rights and Responsibilities.

The **Grading Scale** will be as follows:

Grade	Final % Score
A	93-100
A-	90-92.9
B+	87-89.9
B	83-86.9
B-	80-82.9
C+	77-79.9
C	73-76.9
C-	70-72.9
D	60-69.9
F	<60

For scores with decimal points ending above 0.5, the point score will be rounded up to the nearest integer; scores with decimal points ending below 0.5, will be rounded down to the nearest integer. The % scores are not exact and will be adjusted in overall agreement with past final letter grade scores obtained in this class.

What to bring to an exam:

Bring a pencil with an eraser and a O99B or PO99B answer sheet, filled in before the exam, with name written on the front and back of the green answer sheet. It has circles on it. Bubble in your name and RED ID in advance of the exam, on the back of the answer sheet. Write your name on the front of the answer sheet and on the front of the exam.

Attendance:

Attendance will not be taken in the lecture; please remember that 75% (or higher) of the exam materials will be from lecture notes. Attend the lectures to obtain the content of the material.

Tentative Lecture Schedule

Week	Date	Day	Lecture Topic	Chapter reading in Tortora
1	1/18	W	Administrative/Introduction to Microbiology	1
2	1/23	M	Introduction to Microbiology	1
	1/25	W	Microscopy	3
3	1/30	M	Microscopy/Cell Structure & Function	3/4
	2/1	W	Cell Structure & Function	4
4	2/6	M	Cell Structure & Function	4
	2/8	W	Chemical Principles	2 (pp. 34-49)
5	2/13	M	Metabolism	5
	2/15	W	Metabolism	5
6	2/20	M	Microbial Growth	6
	2/22	W	Exam I	(Ch.1, 2, 3, 4, 5)
7	2/27	M	Microbial Growth	6
	3/29	W	Control of Microbial Growth	7
8	3/5	M	Viruses	13
	3/7	W	Viruses	13
9	3/12	M	Principles of Disease and Epidemiology	14
	3/14	W	Principles of Disease and Epidemiology	14
10	3/19	M	Microbial Mechanisms of Pathogenicity	15
	3/21	W	Microbial Mechanisms of Pathogenicity	15
11	3/26	M	Spring Recess	
	3/28	W	Spring Recess	
12	4/2	M	Innate Immunity	16
	4/4	W	Exam II	(Ch. 6, 7, 13,14,15)
13	4/9	M	Innate Immunity	16
	4/11	W	Adaptive Immunity	17

14	4/16	M	Adaptive Immunity	17
	4/18	W	Applied Immunity	18
15	4/23	M	Genetics	8
	4/25	W	Biotechnology	9
16	4/30	M	Microbial Ecology	9
	5/2	W	Antimicrobial Agents	20
17	5/7	M	Fungi - General; topical & skin diseases	330-339; 600-602; 695-699 (Ch. 16, 17, 18, 8, 9, fungi)
	5/9	W	Last Day of Class	Review and clean up
Final Exam		May 11, Friday	0800-1000 am	GMCS 333

SDSU published Final Exam date and time appears on the web site below.

Final exam web site for Spring 2012: http://arweb.sdsu.edu/es/registrar/finalexams/12_spring.html

Etiquette for emails and discussions.

The faculty and staff associated with Biology 211 are your advocates and want you to succeed in this course and beyond. You have every right to ask to review an issue with appropriate faculty or staff. It is not acceptable to write inflammatory emails or use expletives in face-to-face meetings, or in email. An individual who displays disruptive behavior will be asked to leave the class.

Bio 211L (the separate laboratory for Biol 211 class) can be accessed at the following web address:

<http://www.sci.sdsu.edu/classes/biology/bio210/lab/demers>

Standards of compliance and non-negotiable grade policy

Grades for all exams will be posted on Blackboard.

It is the non-negotiable policy of this class that grades will not be discussed via email. Grades for exams or the course must be discussed in person. Email discussions about course or assignment grades are prohibited by SDSU's Information Security Plan in order to assure compliance with federal laws protecting student privacy.

Your grades are based on your performance on the exams, not on attendance or perceived student effort. You may request a change to your exam score or grade based on factors such as exam key errors, potentially incorrect exam key answers, or errors made by the instructor during the entry of scores on Blackboard.

Biology 211 Course Policy: It is important that course policy is well documented and fair. Policy issues are considered to be important by both students and faculty. Contact the instructor regarding course policy description or content if you do not understand the description.

Grades. We do not know what the curve will be in advance. However, we can state the following:

1. Biology 211

Your grade is based on a total of 300 points (three 100-point exams).

2. We will not curve down below standard grade cutoffs. The minimum standards are,

90% - A- or better

80% - B- or better

70% - C- or better

60% - D- or better

40%-60% - possibly an F, depending on the curve

< 40% - F in all cases

3. If an exam is curved, the adjustment to your points will be announced on Blackboard soon after the raw scores are posted.

4. The final grades will be cumulative. Your final score will simply be the sum of your three adjusted exam scores.

5. The instructor will strive to make the final grading scale approximately the same as the exam grading scales, in terms of how percentages translate to specific grades. Grades will always be reported in whole numbers, no fractions or decimals will be used

6. Exams in Biology 211 will reflect the course material. The course material consists of two components,

i. Slides (PowerPoint)

ii. Book Assigned Chapters or Pages of reading

You are responsible for more than just the classroom slide material in examinations. You are also equally responsible for reading assignments on the syllabus and the material that appears in the assigned chapters, Page numbers are listed where relevant.

At least one and possibly more practice exams for exam 1, exam 2 and final exam from prior semesters will be posted on Blackboard in the Document section.