

## **BIOLOGY 211L (formerly Bio 210) - Laboratory course description Spring 2011**

**Class Web Site:** <http://www.sci.sdsu.edu/classes/biology/bio210/lab/demers/>

**Note:** Add Deadline is 2/3 by 11:59PM; Drop Deadline is 2/1 by 11:59 PM

**PREREQUISITES:** Will be enforced. Completion of, or Concurrent Enrollment in Bio 211. Completed Bio 203 and 203L (Formerly 201A) ; or Bio 100 and Chem 100 or Chem 102 or Chem 130.

**ATTENDANCE:** Laboratory attendance is mandatory. If you are absent or late, or leave before the assigned work is completed, you are letting your lab partners down and compromising your own grade, by losing performance evaluation points. . You **WILL NOT PASS** the course if you miss more than 2 periods without a valid medical excuse. Arriving late (more than 15 minutes) consistently (more than 2) or leaving early before the lab work is completed will be counted as an unexcused absence. Payment of lab fees is required for the laboratory.

### **COURSE OBJECTIVES:**

(also see the Lab Learning Objectives on class web site for individual lab exercises 1-30 )

Upon Successful completion of this course students will be able to:

1. Demonstrate a working knowledge of all safety equipment and procedures in the microbiology laboratory.
2. Properly use a compound microscope to observe bacteria, fungi, protozoa and algae.
3. Perform Aseptic technique as it is used in a microbiology laboratory.
4. Properly use stains such as the Gram stain for identification of bacteria.
5. Demonstrate proper hand washing.
6. Distinguish between select bacterial groups based on microscopy, physiological and biochemical characteristics.
7. Identify microorganisms in: drinking water, waste water and sewage treatment, production and spoilage of foods, human disease, the production of antibiotics.
8. Recognize the importance of microbes in nature.
9. Recognize the importance of microorganisms to humans, both beneficial and in disease.
10. Use and apply technical skills necessary for the study of immunology in the laboratory.

**SAFETY:** The laboratory exercises will use chemicals and living microorganisms, both of which could be harmful or infectious if handled improperly. You will be taught how to work in the laboratory properly. **Please follow the instructions that the laboratory instructors provide.** Also, if you have an allergy to fungi or certain chemicals, if you are pregnant, or if you have a compromised immune system, please contact the professor.

**LAB ASSIGNMENTS:** The lab manual is to be used as a workbook and students are required to **complete all of the laboratory exercises** in the lab manual. This includes the "Evaluation of Results" section (Purpose, Data, Conclusions and Discussions), and the questions, as well as the **Case Histories** in the appendix. The student should use lecture notes, lab notes, the textbook, lab manual and other texts to find the answers to the questions and to work on the Case Histories. Additional questions will be added as needed. The lab quizzes will test your knowledge of all of the material. The **manual** will be checked periodically by the TA. Pop quizzes will be given throughout the semester to assure that students are coming to class prepared. Each student will be required to give an **oral presentation (10-15 minutes, with PowerPoint) on a topic in microbiology, to be decided by the student and TA. A general outline of the presentation must be handed in before the day of the oral, and a detailed outline is due on the day of the presentation.** Students are required to **write two lab reports, following scientific format, on unknown microorganisms. Students are required to turn in both a hard copy and an electronic copy of both lab reports and both outlines for the orals.** If plagiarism is discovered, students are liable to be expelled, suspended or placed on probation, according to Section 41301 of the California Code of Regulations.

**REPORTS: take home quizzes, written reports, etc.** All written reports are due on the dates listed in the syllabus. The oral reports are due on the date decided between you and your TA. Points will be lost for handing in late work. **The penalty for late work will be 10% per lab day.**

**LAB PERFORMANCE:** This grade is determined by attendance, ability to master the technical skills, preparation before coming to class, professionalism, your ability to accept responsibility and work well with your partners, and your attitude and cooperation in class. Lab checks (pop quizzes ) will be instituted to enforce your preparation before lab.

**QUIZZES:** There will be five lab quizzes, worth 40 points each, spread over the 15 week semester. They might include practical lab questions. These will be given during the laboratory portion of the course to individual sections, on the dates listed in the syllabus. The lowest quiz grade will be discarded and **there will be no makeup's**. A missed quiz will count as the lowest grade to be dropped. Please do not discuss the quiz material with other sections of the class, this will only lower your grade. **There will not be any extra credit given.** See grading below.

**There will be no changes to an assignment 's grade later than two periods after it is returned.**

**GRADING: BASED ON A TOTAL OF 300 POINTS: (THERE IS NO EXTRA CREDIT)**

160	Lab quizzes; 5 (40 pt. each), drop one	20	Performance evaluation
5	Unknown take home	20	Lab Manual
15	Lab Report # 1 (First Unknown)	15	Case Histories: (5 x 3 pt each)
30	Lab Report # 2 (Second Unknown)	15	Pop quizzes: (3 X 5 pt each)
20	Oral report		

**BIO 211 GRADING BREAKDOWN**

Grade	%	Points
<b>A</b>	<b>93 – 100</b>	<b>279-300</b>
<b>A-</b>	<b>90 – 92.9</b>	<b>270-278.9</b>
<b>B+</b>	<b>87 - 89.9</b>	<b>261-269.9</b>
<b>B</b>	<b>83 - 86.9</b>	<b>249-260.0</b>
<b>B-</b>	<b>80 – 82.9</b>	<b>240-248.9</b>
<b>C+</b>	<b>77 - 79.9</b>	<b>231-239.9</b>
<b>C</b>	<b>73 - 76.9</b>	<b>219-230.9</b>
<b>C-</b>	<b>70 -72.9</b>	<b>210-218.9</b>
<b>D</b>	<b>60 - 69.9</b>	<b>180-209.9</b>
<b>F</b>	<b>&lt; 60</b>	<b>&lt;180</b>

**Note: If lab section grades are significantly different, the lab grades will be normalized between lab sections**

**GRADES:** An independent letter grade will be assigned for both lab (Bio 211L) and lecture (Bio 211).. Grades for all quizzes, and assignments will be posted on Blackboard.

It is the non-negotiable policy of this class that exam scores and final course 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 attendance, performance in lab and the assignments and quizzes. 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.

### **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 of 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.

**Plagiarism** *is formal work publicly misrepresented as original; it is any activity wherein one person knowingly, directly, and for lucre, status, recognition, or any public gain resorts to the published or unpublished work of another in order to represent it as one 's own* (Lindey, Alexander. Plagiarism and Originality, 1952).

### **Cheating, Copying or Plagiarism will not be tolerated:**

If there is evidence of cheating copying or plagiarizing on any test, quiz, report, etc., those involved will receive no credit on the item or receive an F for the course. The lecturer and appropriate lab instructors will meet with those involved and students will not be allowed to sit together during subsequent exams, quizzes (lecture and lab). This will be dealt with on a case by case basis. Further departmental action may be taken, including action resulting in the expulsion of the student who has committed the infraction.

### **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.