Instructor: Jeanne Weidner, Ph.D.  
Office: SCI2 Room 115  
Email: Through WebCT email  
Office Hours: 12 - 12:30 M and T or by appt.

Required Texts:  
Both are required each week in lab.

Supplies:  
Lab coats and closed-toed shoes are required while working in lab. In addition, please have colored pencils, and a small stapler available for each lab. If you have long hair, it must be secured off your shoulders for safety reasons; please bring a rubber band or similar item for this purpose. All of these can be stored in your assigned drawer; please bring a padlock to secure them.

Evaluation:  
Laboratory will account for 200 points, one-third of your total grade in the course and will be based on your performance on the following assignments/quizzes/activities:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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<tbody>
<tr>
<td>Quizzes (one dropped)</td>
<td>80 pt</td>
</tr>
<tr>
<td>Lab preparation</td>
<td>15 pt</td>
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<tr>
<td>Assignments</td>
<td>20 pt</td>
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<tr>
<td>Oral Report</td>
<td>20 pt</td>
</tr>
<tr>
<td>Unknown report</td>
<td>25 pt</td>
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<tr>
<td>Class Participation</td>
<td>15 pt</td>
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<tr>
<td>Lab Manual reports</td>
<td>25 pt</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>200 pt</strong></td>
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Quizzes:  
Three in-lab quizzes are scheduled for the semester, one every 5 weeks. Lab quizzes will consist of both practical and short answer items. Each quiz will be administered at the beginning of lab on the assigned day and will be worth 40 points. There will be no makeup quizzes; the lowest of the three quizzes will be dropped. A missed quiz will count as the lowest grade to be dropped.

Lab prep:  
Preparation for each lab session will be periodically assessed by means of a short pop-quiz at the beginning of lab. Each week read the assigned exercises in your lab manual before coming to lab. Make handwritten notes for yourself that describe ONLY the parts of the exercises that will be performed that week in lab (e.g., Day 1, etc). Summarize the major supplies and cultures you will be using, what you will be doing with them, and why. Summarize major points about the purpose and principles of the procedures. These notes can be used during the pop-quizzes at the beginning of lab or may be collected periodically for credit.

Assignments:  
Three assignments - a video summary, one case study and a practice unknown - are due on the dates listed in the schedule. These are worth 5-10 points each and the penalty for late work will be 10% per day. Each must include references. Please follow the format for listing citations, as indicated below. Both written and electronic copies may be required, at the discretion of the instructor.

Oral Report:  
Each student will give an oral presentation (4-5 minutes, accompanied by PowerPoint slides) on a topic in microbiology, to be chosen by the student and approved by the instructor. The topic must be chosen by the third week, and a brief outline, with references, is due on the day of the report. Students are required to upload an electronic copy of the PowerPoint file to WebCT under the Assignment Publication forum, so that other students can download the files for study. Oral reports will begin the fourth week of class. Please see the posting under WebCT for more information.
Unknown: Students will be given an unknown microorganism to identify and write a corresponding report. Students are required to turn in both a hard copy in class and an electronic copy to Turnitin. Additional information about this assignment will be posted on WebCT.

Participation: This grade is determined by attendance, punctuality, proper care of equipment, following instructions, technical skills, preparation before coming to class, professionalism, ability to accept responsibility, working well with partners, and attitude and cooperation in class. 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 grade. You will receive an "F" in the course if you miss more than 2 periods without a valid written medical excuse. Arriving late consistently (more than twice), more than 10 minutes late, or leaving early before the lab work is completed will be counted as an unexcused absence. You earn one point each week by attending lab, but can lose fractions of a point each time you fail to meet these expectations.

Lab Manual: Purchase of the laboratory manual is mandatory and its use is required each week in lab. It is to be used as a workbook and students are required to complete all assigned laboratory exercises as indicated in the schedule. This includes the “Evaluation of Results” report, the questions, and any homework listed on the schedule. The student should use lecture notes, lab notes, the textbook, lab manual and other texts to find the answers to the discussion questions. Reports are due at the lab period immediately following the conclusion (final day) of each exercise. Reports must be completed independently. Any reports with answers significantly similar to another student’s will receive no credit and may result in referral to the Office of Academic Honesty (see below).

References: Please use the format indicated by the American Medical Association Manual of Style: A Guide for Authors and Editors, 9th edition, when listing citations for all of the assignments (oral reports, unknown report, etc.) in this class. A summary of the most common examples of citations is available through the WebCT site.

Academic Honesty: Each student is expected to maintain the highest standard of academic honesty in this course. Any instances of cheating or misrepresentation of work will be reported to the campus office of Academic Honesty and will be subject to penalty, ranging from receiving no credit on the assignment to failing the course. If plagiarism is discovered, students are subject to probation, suspension, or expulsion according to Section 41301 of the California Code of Regulations. 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).
LABORATORY SCHEDULE (Tentative)

BIOLOGY 160 Spring 2008

You are required to read the Assigned Readings listed below in your lab manual and atlas, before coming to each class.

Laboratory Manuals (required):  
- *A Photographic Atlas for the Microbiology Laboratory*, 3rd edition. Leboffe & Pierce

Please note exercise numbers and Appendices refer to the Laboratory Manual by DeMers. Page numbers in the “Atlas” column refer to the Photographic Atlas by Leboffe & Pierce.


### BIO 160 LECTURE & LAB SECTION MEETING TIMES

[all labs meet in SCI 121]

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>EXERCISES/MANUAL READINGS</th>
<th>ASSIGNMENTS/REPORTS</th>
<th>Atlas</th>
<th>DVD</th>
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<tbody>
<tr>
<td>1</td>
<td>1/21, 1/22</td>
<td>Martin Luther King Day Week – No Labs</td>
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<tr>
<td>4</td>
<td>2/11, 2/12</td>
<td>4: Observing Fungi and Yeast 5: Observing Bacteria 6: Aseptic Technique (day 1 - inoculations)</td>
<td>Presentations begin Reports Due: Ex. 1, 2, &amp; 3 Aseptic Technique</td>
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<td>5</td>
<td>2/18, 2/19</td>
<td>6: Aseptic Technique (day 2 - results) 7: Smear preparation 8: Simple staining 10: Miscellaneous staining: (Observation only)</td>
<td>Reports Due: Ex. 4 &amp; 5 9 138 27-34 Smear preparation Simple staining</td>
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<tr>
<td>6</td>
<td>2/25, 2/26</td>
<td>Quiz #1: Ex 1, 2, 3, 4, 5, 6, 7, &amp; 8 9: Gram stain 11: Streak Plate Technique (day 1 - inoculation) 12: Specimen transport (day 1 - collection) 13: Hand Washing (day 1 - inoculation)</td>
<td>Appendix B Reports Due: Ex. 6, 7, &amp; 8 35-38 28, 38-42 145-146 13 Gram stain Streak plate</td>
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<td>7</td>
<td>3/3, 3/4</td>
<td>11 cont.: Streak plate (day 2 - isolation) 12 cont.: Specimen Transport (day 2 - inoculation. evaluation of RODAC) 13 cont.: Hand Washing (day 2 - interpretation) 14: Bacterial Growth Characteristics (day 1 - inoculations)</td>
<td>Reports Due: Ex. 9 &amp; 10 1-8</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Subjects</td>
<td>Reports Due</td>
<td>Assignments</td>
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</table>
| 8    | 3/10, 3/11 M, T | 11 cont.: Streak plate (day 3 · evaluation)  
12 cont.: Specimen transport (day 3 · evaluation)  
14 cont.: Bacterial Growth Characteristics (day 2 · results and interpretations)  
15: Microbiology of wine making (day 1 · inoculations) | Reports Due: Ex. 13 Assignment 2: Case History #3 Due (Appendix L) | 9-12                           |
|      | 3/17, 3/18 M, T | 15 cont.: Wine microbiology (day 2 · observations)  
16: Selected Physiological and Biochemical Tests (day 1 · inoculations)  
17: Staphylococci (day 1 · inoculations)  
18: Antibiotics from Soil (day 1 · isolation)  
19: Streptococci (day 1 · throat cultures) | Reports Due: Ex. 11, 12, & 14 Ex. 18 (Bring soil sample) | 51, 56-62, 67-68, 72, 76-80 Serial Dilutions |
| 10   | 3/24, 3/25 M, T | 16 cont.: Physiological and Biochemical tests (day 2 · interpretations)  
17 cont.: Staphylococci (day 2 · biochemical tests)  
18 cont.: Antibiotics from soil (day 2 · testing)  
19 cont.: Streptococci (day 2 · enrichment and unknowns) | Reports Due: Ex. 15 | 18-19, 50-51, 55-56 |
|      | 3/31-4/4 Spring Break!! | | | |
| 11   | 4/7, 4/8 M, T | QUIZ #2: Exercises 9, 10, 11, 12, 13, 14, 15 & 16  
17 cont.: Staphylococci (day 3 · identification)  
18 cont.: Antibiotics from soil (day 3 · testing)  
19 cont.: Streptococci (day 3 · biochemical tests and identification)  
23: BEGIN UNKNOWN (day 1 · inoculation) | Reports Due: Ex. 16 | 46-49, 50-51, 71-72, 77-78 |
|      | 4/14, 4/15 M, T | 17 cont.: Staphylococci (day 4 · final identification)  
18 cont.: Antibiotics from soil (day 4 · interpretation)  
19 cont.: Streptococci (day 4 · throat identification)  
23 cont.: Unknown continued (day 2) | Appendices D and E Assignment 3: Practice Unknown Due (Appendices C through G) | 89-90, 152,153 |
| 12   | 4/21, 4/22 M, T | 20: Antiseptics & Disinfectants (day 1 · inoculations)  
21: Antibiotic sensitivity testing (day 1 · inoculations)  
22: Urine cultures (day 1 · inoculation)  
25: Water Microbiology (day 1 · inoculation)  
23 cont.: Unknown continued (day 3) | Ex. 20 (Bring disinfectants) Reports Due: Ex. 17, 18, & 19 . | 135, 140, 143, 148, 149, 153-156, 88, 93-94 |
|      | 4/28, 4/29 M, T | 20 cont.: Antiseptics & Disinfectants (day 2 · interpretation)  
21 cont.: Antibiotics (day 2 · interpretation)  
22 cont.: Urine cultures (day 2 · biochemical tests)  
25 cont.: Water Microbiology (day 2 · presumptive test)  
23 cont.: Unknown Report Due (day 4) | Reports Due: Ex. 23 (Unknown Report) | 91, 16 |
| 15   | 5/5, 5/6 M, T | QUIZ #3: Exercises 17, 18, 19, 20, 21, 22, 23, 24 & 25  
24: Diagnostic Immunology: Agglutinations. Streptex kit  
25 cont.: Water Microbiology (day 3 · confirmation test)  
Lab Check out | Reports Due: Ex. 20, 21, 22, 24 & 25 | 115 |