Biology 313  
Molecular and Cellular Laboratory  
SPRING SEMESTER 2017

1 Credit
INSTRUCTOR: Dr. Scott Grieshaber
TA: Chris Trahan, Sam Bloomsburg

Dr. Scott Grieshaber

OFFICE: Room 130 Gibb
EMAIL: scottg@uidaho.edu
OFFICE HOURS: By appointment

Bloomsburg
OFFICE: Room 352 Life Sciences Building
EMAIL: bloo7876@vandals.uidaho.edu
OFFICE HOURS: By appointment or ½ hour before lab in lab room

Trahan
OFFICE: Room 352 Life Sciences Building
EMAIL: trah2942@vandals.uidaho.edu
OFFICE HOURS: By appointment or ½ hour before lab in lab room

Lab Sections:
1—T 8:30-11:20; LIFE 167
2—T 2:30-5:20; LIFE 167
3—R 9:30-12:20; LIFE 167
4—R 2:30-5:20; LIFE 167

Lab Expectations:
Lab protocols will be published in BBlearn by Friday 5 PM the week before lab. Students are to read over the material before lab to familiarize yourselves with the protocols to be performed and to prepare for a possible quiz before lab concerning the day’s material.

Learning Outcomes: At the end of this course students should be familiar with basic research techniques in cell and molecular biology such as PCR, WBA, RT-PCR and the use of antibody reagents. Students will know how to use a pipetman, pour and load an agarose gel, make dilutions and stain tissues. Students will know how procedures they perform work at a mechanistic level.

Lab Overview/Lab schedule
Jan 11-13 NO LAB first week
17/19 Introduction & lab safety & Microscope
24/26 Cell Fractionation
Feb 31/2 Cell surface receptor
7/9 Elisa
14/16 Immunohistochemistry
21/23 Mutagen Lab I
Mar 28/2 Mutagen Lab II (laptop helpful)
7/9 Lab Exam I
21/23 Mitosis and Meiosis
28/30 Informatics Lab (bring a laptop if you can)
Apr 4/6 RNA Isolation
11/13 Reverse Transcription/PCR
18/20 Gel Electrophoresis for PCR product
25/27 Lab Report Workshop
May 2/4 Lab Exam II, Lab Report Due
9/11 NO LAB—Finals Week

**Breakdown of Assignments**

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st exam</td>
<td>100</td>
</tr>
<tr>
<td>2nd exam /Final exam</td>
<td>100</td>
</tr>
<tr>
<td>Lab notebook first half semester</td>
<td>50</td>
</tr>
<tr>
<td>Lab notebook second half semester</td>
<td>50</td>
</tr>
<tr>
<td>Lab quizzes (5)</td>
<td>100</td>
</tr>
<tr>
<td>Lab Report</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500</strong></td>
</tr>
</tbody>
</table>

**Grading**
Grades will be based solely upon the percentage of total points you have accumulated.

90% or greater of the total accumulated points = A
80% = B
70% = C
60% = D
Below 60% = F

**Unexcused absence**
Labs and quizzes cannot be made up if you are absent
• One absence will result in your final grade being lowered by one level (for example B to C)
• Two absences will directly result in failure of the course.

Rules for the course
• You must read the lab manual section you will cover for the day before coming to class to familiarize yourself with the procedure for the day.
• Quizzes will be based on this material and given on random lab days before labs begin and concern basic material from that day’s lab period.
• Plagiarism is a form of academic dishonesty; any student that plagiarizes another writer will receive a grade of “F” for the course. If you have any doubts about what constitutes plagiarism, see me (also see rules of the course below).

Academic Honesty
The rules for this course are outlined in the “Student Code of Conduct” for the University of Idaho. The most important of these rules are listed below:

ARTICLE II--ACADEMIC HONESTY.

1. Cheating on classroom or outside assignments, examinations, or tests is a violation of this code. Plagiarism, falsification of academic records, and the acquisition or use of test materials without faculty authorization are considered forms of academic dishonesty and, as such, are violations of this code. Because academic honesty and integrity are core values at a university, the faculty finds that even one incident of academic dishonesty seriously and critically endangers the essential operation of the university and may merit expulsion. [rev. 7-98]

2. The operation of UI requires the accuracy and protection of its records and documents. To use, make, forge, print, reproduce, copy, alter, remove, or destroy any record, document, or identification used or maintained by UI violates this code when done with intent to defraud or misinform. Entrance without proper authority into any private office or space of a member of the faculty, staff, or student body is a violation of this code.

3. Instructors and students are responsible for maintaining academic standards and integrity in their classes. Consequences for academic dishonesty may be imposed by the course instructor. Such consequences may include but cannot exceed a grade of “F” in the course. The instructor should attempt to notify the student of the suspected academic dishonesty and give the student an opportunity to respond. The notice and the opportunity may be informal and need not be in writing. Penalties for any disciplinary infraction must be judicially imposed. [See 1640.02 C-5] [rev. 7-98]

Disability Support Services
Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through Disability Support Services located in the Idaho Commons Building, Room 306 in order to notify your instructor(s) as soon as possible regarding accommodation(s) needed for the course.

• 885-6307

• email at <dss@uidaho.edu>
Students should present a completed and signed Accommodation Checklist for the current semester, from our office when requesting accommodations. If they do not, please refer them to the Disability Support Services office (Idaho Commons, Room 306) to obtain one. If you have any questions regarding a student(s) with a disability(s), or how to best work with a particular student in class, please contact our office.