

Immunology Lab (BIOL 4060)
Fall 2011
Tuesday 2-4:50pm
Room BO 2008

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Grading

Tentative Grading Scale

90-100% A range

80 -89 B range

70-79 C range

60-69 D range

Point Distribution

Lab Reports 40%

Quizzes 20%

Oral Presentation 15%

Lab Practical 20%

Weekly performance 5%

Instructions

- All assignments have to be completed independently and plagiarism of any kind will not be tolerated. Please see the Academic Dishonesty policy.
- **Lab Reports**
 1. Lab Reports are worth 30 points each.
 2. Lab Reports will be worth 40% of your final grade.
 3. All Lab Reports should be typed. Handwritten will not be accepted.
 4. Each report should have Introduction, Materials and Methods, Results and Discussion/Conclusion. If there is some change in this format, it will be discussed the previous week.
 5. The Lab Report for each experiment should not exceed 5 typed pages (Font size 12) and will also be evaluated for organization of content and neatness.
 6. All Assignments have to be turned in before the start of the lab the day they are due.
 7. In case of Late Assignments, 3 points or 10% of the grade will be cut off from the final grade of that assignment for each late day.

8. Lab Reports sent in email attachments will not be accepted.

- **Quizzes**

There will be seven quizzes given throughout the semester. These are worth 10 points each and 20% of your final Grade.

- **Performance**

This is a lab-based course and points are allocated for conduct, enthusiasm, attendance and cleanliness. Cleaning your work area before you leave is an absolute must.

- **Attendance**

The students are expected to attend all the labs. **There are no make-up labs!** Each student will be allowed one excused absence. Being absent in more than two labs will result in failure in the course.

- **General Instructions**

1. All experiments will be conducted in pairs or in case of some experiments groups of four. Please choose your partner for the semester. No changes will be made later.
2. Every week an attendance sheet will be passed around. Be sure to sign it!
3. The first week an attendance sheet along with a column for email addresses will be passed around. Make sure to put in your most functional email addresses. If this does change during the semester, you can make this change in the attendance sheet alongside your name. Results of certain experiments may have to be sent by email and this probably will have to be in the lab report due the following week. "I haven't received the email" is unacceptable.
4. I will make a folder with all your email addresses and send you an email Tuesday, Week1 by 5pm. Please reply back immediately to confirm it.

| Week | Date | Topics |
|-------------|-------------|---|
| 1 | 8.23.10 | Introduction |
| 2 | 8.30.10 | Hemocytometer/cell counting/ Blood smears and blood cells |
| 3 | 9.6.10 | Quiz #1/Lab Report#1 Due Phagocytosis Set up oral and nasal cultures |
| 4 | 9.13.10 | Gram Staining of Oral/Nasal Culture |
| 5 | 9.20.10 | Quiz#2/Lab Report #2 Due Cytotoxicity |
| 6 | 9.27.10 | Quiz #3/Lab Report #3 Induction of the Immune Response |
| 7 | 10.4.10 | Induction of the Immune Response, cont'd |
| 9 | 10.11.10 | Quiz #4/Lab Report #4 ELISA (HIV Diagnostic test) |
| 8 | 10.18.10 | Fall Break-NO LAB |
| 10 | 10.25.10 | Quiz #5/Lab Report #5 FACS analysis |
| 11 | 11.1.10 | Quiz #6/Lab Report #6 Immunohistochemistry |
| 12 | 11.8.10 | Immunohistochemistry, cont'd |
| 13 | 11.15.10 | Quiz #7/Lab Report #7 Oral Presentations (Meet in WO 3246) |

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| 14 | 11.22.10 | Oral Presentations, cont'd (Meet in WO 3246) |
| 15 | 11.29.10 | Oral Presentations, cont'd (Meet in WO 3246) |
| 16 | 12.6.10 | Lab Practical |

Oral Presentations

Select a topic either from the following listed topics or one of your choice. Remember to select a topic that emphasizes the role of the immune response in a clinical setting- the disease can be related to autoimmune, infection, allergy or cancer.

Emphasize on the role immunology plays on the topic- diagnostic, therapeutic or pathological.

The presentation should be preferably PowerPoint and should not exceed 15 minutes. Do not forget to add a slide for the references used.

Oral Presentations are worth 15% of your total grade. **In order to receive full credit, you must attend all of the oral presentations.**

Suggested topics:

1. Hashimotos thyroiditis
2. Type 1 Diabetes
3. Myasthenia Gravis
4. Systemic Lupus Erythematosus
5. Crohns/Ulcerative Colitis
6. Rheumatoid Arthritis
7. Lyme disease
8. Acute Rheumatic Fever
9. Dilated Cardiomyopathy
10. Bullous Diseases
11. Toxic shock Syndrome
12. Immune Mediated Anemia
13. Multiple Sclerosis
14. Lymphoma
15. Tuberculosis
16. Chronic Granulomatous Disease
17. Asthma
18. Sarcoidosis
19. AIDS
20. Inflammatory Hepatobiliary Cirrhosis
21. Monoclonal Gammopathies
22. Tetanus
23. Herpes
24. HPV vaccine

25. Leprosy