Chemistry 4399: Immunochemistry
McMurtry University
Spring 2005

Professor:
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Office Hours:
MWF 9:00 – 11:00
R 2:30 – 4:30

"Meaningless! Meaningless!" says the Teacher.
"Utterly meaningless! Everything is meaningless.
[Ecclesiastes 1:2]

Prerequisites:
• chem3441 (Biochemistry I)
• permission of instructor or of pre-med advisor

Required Materials:
• Cellular and Molecular Immunology 5th ed. Abbas and Lichtman. (available in the campus bookstore)

Course Objectives:
Welcome to immunochemistry. This course is an introduction to the field of immunology with emphasis on the biochemical aspects of the systems. Immunology, in the broadest sense, is the study of how our bodies deal with non-self entities with which we come in contact. This includes foreign molecules, bacteria, fungi, viruses, allergens, microbes, and even tumors. There are four main areas of immunology: (1) recognition of antigens, (2) lymphocytes, (3) effector mechanisms, and (4) disease. Additionally, we will study laboratory techniques used in immunology and biochemical techniques derived from the field.

Course Topics:
We will follow the chapters of the text as organized in the book. Some topics will be covered in detail, some not. Essentially, the class is divided into five subsections:

1. introduction
2. recognition of antigens
3. maturation, activation, and regulation of lymphocytes
4. effector mechanisms of immune responses
5. diseases of the immune system

Assignments:
• Homework: for each chapter, an outline of the material must be completed. If you wish, the outlines may be done collaboratively, but each student must hand in his/her own paper. Outlines will be due one class period after completing that chapter in lecture.
• Quizes: will be given for chapters 1-2, 3-4, 5-6, 7-8, 9-10, 11-12, 13-15, 16-17, 18-20. Quizes are closed-book and closed-notes. The lowest score quiz will be dropped for each student.
• Final examination: A comprehensive final examination will be given at the end of the course. Class lecture notes and outlines may be used the last 15 minutes of the exam.
• Extra Credit: Seminars are often given each semester by upper classmen as part of their coursework and/or honors or research projects, and by visiting scientists to our campus. Any chemistry or biochemistry related seminars will be announced in class. Extra credit of 1% points will be given for attendance at each seminar.
Attendance: Attendance at all lectures and laboratories is mandatory. Attendance will be taken each class period; absences will be excused only if the student is away on an official university function and has obtained authorization from the Vice President of Academic Affairs (see student handbook). It is the student’s responsibility to notify the professor about each excused absence; otherwise, the student will be marked to have an unexcused absence for that day. It is the student’s responsibility to obtain any missed lecture material.

Attendance will count toward the course grade. All students will begin with a 5% attendance score. Up to three unexcused absences are allowed and will have no effect on this grade; excused absences will also have no effect. However, the student will lose 1 percentage point (1%) from this grade for each unexcused absence beyond three, until 0% is reached. Students with ten or more unexcused absences will be administratively dropped from the course.

Grading: Course grades will be computed according to the following percentages:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Quizes</td>
<td>50%</td>
</tr>
<tr>
<td>Outlines</td>
<td>15%</td>
</tr>
<tr>
<td>Attendance</td>
<td>5%</td>
</tr>
<tr>
<td>Extra Credit</td>
<td>(+10% max)</td>
</tr>
</tbody>
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Letter grades will be assigned as follows:

- 100 – 93% A
- 90 – 92.99% A-
- 87 – 89.99% B+
- 83 – 86.00% B
- 80 – 82.99% B-
- 77 – 79.99% C+
- 73 – 76.00% C
- 70 – 72.99% C-
- 67 – 69.99% D+
- 63 – 66.00% D
- 60 – 62.99% D-
- 0 – 59.99% F

note: Raw percentages in an upper level course such as immunochemistry can be depressed due to the difficult nature of the material. Letter grades will be assigned on a mapped scale which will neither be more stringent than the standard “straight scale” nor will ever lower a student’s score. Final determinations will be made based on performance, in both lecture and laboratory, of individual students and of the class as a whole.

Blackboard: All students must enroll in McMurry’s online “Blackboard” and then into this course. Students will find course documents and a simple log of where the class is at in the course as far as chapters and topics will be posted. Also, any class announcements will be made using e-mail via blackboard.

Academic Conduct: As explained in the student handbook, students are expected to conduct themselves in a manner compatible with McMurry University’s function as an educational, church-affiliated institution. Any and all instances of dishonest or disruptive behavior, including cheating and plagiarism, will result in a zero for that assignment, will be reported to the Dean of Student Affairs, and could lead to official action against the student.