

**Immunology Syllabus**  
**MBIO 4100**  
**11:00 - 11:50 AM, M-W-F**  
**Room: Naraghi Hall, 322**  
**Fall 2012**

Instructor: Dr. Choong-Min Kang  
Office: Rm. 262 Naraghi Hall of Science, 667-3484  
Email: ckang1@csustan.edu  
Office hours: 11:00 AM - 12:00 PM Tuesdays and Thursdays  
Other hours may be scheduled on an individual basis.

Course Description: A survey of basic immunological principles is presented for the student to provide a general orientation to immunology. Certain concepts and the major effectors of immune responses are introduced and more detailed discussions are held later in the course. Central aspects of innate and humoral immune responses will be covered. Exploration of special topics in immunology such as autoimmunity and immunodeficiency will be held as group study and presentations. Immunologic principles of laboratory diagnosis of human disease will also be discussed.

Immunology is a technical and vocabulary-heavy subject and most of the material taught may be entirely new to you. It is one of the difficult scientific disciplines. It is imperative that you keep up with the reading and review the lecture material after each class. Learning will be cumulative, meaning that early concepts will re-emerge and be expanded upon throughout the semester. Thus, ‘cramming’ for an exam is not a very good idea.

Course Credits: This is a 3-credit course

Course Prerequisites: Students are required to have completed XXX. Those who managed to enroll in this course without satisfying this prerequisite will probably not succeed in this course and for this reason will be required to drop it. Students who have questions about these prerequisites should see the instructor.

Textbook & lecture slides:

**Janeway’s Immunobiology**, 8th edition, 2011, Kenneth Murphy.

Every effort will be made to provide the lecture slides on Blackboard a day or more before class. However, not all the slides from each lecture will be provided on Blackboard and some slides may only be shown in class.

Exams & Grades: A total of 500 points are possible for the course. Each exam will follow a similar format, although the final exam will be twice longer. You will be required to answer multiple choice, short answer, and short essay-type questions. The final exam will be cumulative and will also cover material addressed in the group presentations.

Grading summary:

Exam 1	100 points
Exam 2	100 points
Final Exam	200 points
<u>Group presentation</u>	<u>100 points</u>
<b>Total points possible</b>	<b>500 points</b>

Missed exams due to illness or extenuating family circumstances will require formal written documentation. Make-up exams may be offered on a case-by-case basis.

Exam corrections: When each exam is returned, you will have **ONE WEEK** to correct errors in grading or challenge a question on the exam. Corrections and inquiries about specific exam questions must occur in person during office hours.

Group presentations: Students will be grouped into 10 - 15 groups and each group will choose an immunological disease for presentation. Examples of the topics are,

AIDS  
Tuberculosis  
Cancer  
Arthritis  
Allergies  
Type 1 diabetes  
Parasitic diseases  
Genetic immune deficiencies

Students must consider following questions when they present their study.

1. What is the cause of the disorder?
2. What immune cells are involved?
3. What types of people are susceptible to the disease?
4. What are the pathologies/symptoms of the disease?
5. What kinds of treatment, if any, are available? How does the treatment work?

Group presentations will be held during the week of November 26. Each group will be given 15 min (thus, each person will have approximately 5 min). Pre-presentation practice can be arranged by appointments with the instructor.

Final Course Grade: The final grade for this course will be derived from the total points earned divided by the total number of points possible for the course. This numerical value will be converted to a percentage.

The course grade will be derived from the following scale:

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 – 69%

F = 0 – 59%

Lecture Policy:

Every effort will be made to begin and end lectures on time. Please try to be in your seats when class starts and do not leave class prematurely.

Students who insist on talking during class will be asked to leave if they continue to disturb the lecture. Questions and other dialog with the instructor are, of course, encouraged.

Cheating Policy:

Any individuals caught cheating will automatically receive a grade of "F" for the course.

You must arrive on time for the exam. Students who arrive after the first student has finished with the exam and left the room will not be allowed to take the exam.

Students will not be allowed to leave the room during an exam. Once a student has left the room, he or she will not be allowed to return.

Absolutely no talking among students will be tolerated during the exam.

Course Outline:

The lecture topics listed below are tentative and subject to change.

8/22 – 8/24	Basic concepts in immunology
8/27 – 8/31	Basic concepts in immunology/Innate immunity
9/5 – 9/7	Innate immunity / The induced responses of innate immunity
9/10 – 9/14	Antigen recognition by B-cell and T-cell receptors
9/17 – 9/21	The generation of Lymphocytes antigen receptors
9/24 – 9/28	<b>Exam 1 (on 9/24)</b> / The generation of Lymphocytes antigen receptors
10/1 – 10/5	Antigen presentation to T lymphocytes
10/8 – 10/12	Signaling through immune-system receptors
10/15 – 10/19	The development and survival of lymphocytes
10/22 – 10/26	T-cell mediated immunity
10/29 – 11/2	The humoral immune responses
11/5 – 11/9	<b>Exam 2 (on 11/5)</b> / The humoral immune responses
11/12 – 11/16	Dynamics of immune system
11/19 – 11/21	Dynamics of immune system / The mucosal immune system
11/26 – 11/30	The mucosal immune system / Group presentations
12/3 – 12/7	The mucosal immune system / Allergy, autoimmunity, and transplantation
12/10	Allergy, autoimmunity, and transplantation
12/17	<b>Final exam</b>