

Instructor: Dr. Hua Shen
Office: 209, Lockett Hall
Tel: (804)-524-6804
Office Hours: 3-5pm MTWR, 8-9am TW by appointment
Email: hshen@vsu.edu

Textbook: "Immunology: An Introduction" by Tizard 4th ed. 1995 Publisher: Saunders

Course description:

The course is designed to familiarize the students with basic concepts of immunology. Topics includes: innate immunity, humoral and cell-mediated specific immunity, antigens and antibody specificities, vaccine, complement system, and inflammation.

Tests:

There are three scheduled tests, each worth 25%. Each student will present a research paper which worth 25%. These add to a total of 100%.

No make-up exams will be given. If a student misses an exam due to a bona fide, documented illness or family emergency, then scores from the remaining exams will be prorated.

Grade calculation:

Grade Scale: 100-90% A, 89-80% B, 79-70% C, 69-60% D, <60 F.

Class attendance

Attendance to all lecture and laboratory classes is expected of all students. Three unauthorized absences from lecture class are allowed. Absence beyond the authorized limit will result in lowered letter grade.

Laboratory Sessions

These sessions are designed to demonstrate some of the theories and phenomena of immunology, and allow the student the opportunities to carry out standard immunological procedures. In so doing, the student should gain experience in performing routine laboratory procedures, illustrating known immunological principles or testing new hypotheses.

Lab manual: Handouts

Lab grade

Lab grade is evaluated based on

- participation in the lab, 50%
- exam worth 50%.

Immunology, Lecture and Laboratory Schedule (tentative)

Week	Lecture Topics	Lab. exercises
1	Overview of the immune system	no lab
2	Overview of the immune system	solutions
	Cells and organs of the immune system	Exercise 1
3	Cells and organs of the immune system	Exercise 1
4	Infections and diseases	Exercise 2
5	Cellular interactions	Exercise 2
	<i>Exam 1</i>	
6	Antigens & antigenicity	Exercise 3
7	The nature of antibodies	Exercise 3
8	The genetic basis of antigen recognition	Exercise 4
9	<i>Fall Break</i>	Exercise 4
10	Antigen processing and presentation	Exercise 5
	<i>Exam 2</i>	
11	T-cell receptor, maturation, activation & differentiation	Exercise 5
12	B-cell generation, activation, and differentiation	Exercise 6
13	Cytokines, The complement system	Exercise 6
14	Cell-mediated effector responses	
15	Inflammation	Lab Exam
16	<i>Final Exam</i>	

Bibliography

Kuby, J., 2003. Immunology, 5th ed., W.H. Freeman Co., New York.

Benjamani, E., Sunshine, G., Leskowitz, S. 1996. Immunology: A short course, 3rd ed. Wiley-Liss, Inc., New York.

Coleman, R., Lombard, M., and Sicard, R. 1992. Fundamental Immunology, 2nd ed. W.C. Brown Publishers, Dubuque, IA.

Janeway, C. and Travers, P. 1996. Immunobiology: The Immune System in Health and Disease, 2nd ed., Garland Publishing Co., New York.

USEFUL WEB SITES

<http://www.aaaai.org>

The American Academy of Allergy Asthma and Immunology site includes an extensive library of information about allergic diseases.

<http://12.17.12.70/aai.default.asp>

The Web site of the American Association of Immunologists contains a good deal of information of interest to immunologists.

<http://www.ncbi.nlm.nih.gov/PubMed/>

PubMed, the national Library of Medicine database of more than nine million publications, is the world's most comprehensive bibliographic database for biological and biomedical literature. It is also a highly user-friendly site.

<http://www.asm.org>

The web site of the American Society for Microbiologists offers free access of eleven online journals.