

**SYLLABUS
BIOLOGY 5415
IMMUNOLOGY
FALL 2008**

Credit, 3 semester hours; **Prerequisites**: Graduate Standing

Catalog Course Description: “A study of multiple aspects of the immune response.”
Lecture three hours per week.

Lecture Schedule: MWF, 11:00 – 11:50 a.m., H100

Instructor: Theodore E. Snazelle, Ph.D.

Office - 109 Hederman Science Building

Telephone: (601) 924-7959 (home--no calls after 9:00 p.m. or before 7:00 a.m.)
(601) 925-3339 (office) - Voice mail after several rings

E-mail: snazelle@mc.edu

Personal Webpage: <http://www.mc.edu/~snazelle>

Textbook: *Kuby Immunology*. 6th edition (2007). Thomas J. Kindt, Richard A. Goldbsy, and Barbara Osborne. W. H. Freeman and Co.

Dr. Snazelle expects each student to have a textbook as he uses it extensively in class and expects each student to do the same.

Lecture Guide: *Immunology Lecture Guide*. Fall Semester 2008. Theodore E. Snazelle.
(\$10.00 [check or cash] - Purchase in Biology Office, H104)

Rationale for Course: The Mississippi College Mission Statement stipulates that *Mississippi College stimulates the intellectual development of its students through the . . . sciences*. A requisite to the preceding is an understanding that the immune response is a double-edged sword, i.e. there are both beneficial and deleterious effects of the immune response, is critical to the knowledge base for any student entering medical technology, dentistry, or medicine. Also, this course will be of value to a graduate student thinking about going on for a doctorate in immunology and/or microbiology. *Furthermore, the university environment . . . encourages them (students) to utilize their skills, talents, and abilities as they pursue meaningful careers, life-long learning, and service to God and others*. It is hoped that graduate students who complete this course and a major in the biological sciences will ultimately utilize their skills, talents and abilities in service to God and man as teachers, professors, physicians, dentists, medical technologists and in other biologically related professions.

Learning Objectives: The following are the immunology learning objectives:

1. The student will learn about innate and adaptive (acquired) immunity.
2. The student will learn about immunogens and antigens.
3. The student will learn about antibody structure and function.

Learning Objectives (cont.):

4. The student will learn about antigen-antibody interactions.
5. The student will learn about antibody structure genetics.
6. The student will learn about biology of B and T lymphocytes.
7. The student will learn about role of the MHC in the immune response.
8. The student will learn about the activation and function of T and B cells.
9. The student will learn about cytokines.
10. The student will learn about tolerance and autoimmunity.
11. The student will learn about complement
12. The student will learn about the four types of hypersensitivity.
13. The student will learn about transplantation.
14. The student will learn about HIV/AIDS

Lecture Outline:

Introduction to Immunology
Innate and Adaptive Immunity
Immunogens, Antigens, and Adjuvants
Antibody Structure and Function
Organization and Expression of Immunoglobulin Genes
Complement
The MHC and Antigen Presentation
T Cell Receptor
B Cell Generation, Activation, & Differentiation
Cytokines
Hypersensitivity
Transplantation Immunology
HIV/AIDS
Tolerance and Autoimmunity

Methods of Instruction: Lecture presentations will be supplemented with printed lectures and PowerPoint presentations.

Evaluation Methods: Four unit 100 point exams will be given. Exams will be largely objective in format, e.g. multiple choice, etc. With the exception of the weeks when exams are given, a 10 point quiz usually will be given each week. The quizzes will be given at the beginning of the lecture period. Quizzes will be largely short answer. A missed quiz is a dropped quiz. Two quiz scores will be dropped.

A PowerPoint presentation on an assigned autoimmune disease (See Table 16-1, p. 403) will be given by each graduate student. The presentations will be given on Mondays beginning September 29, 2008. The PowerPoint presentation is worth a maximum of 50 points. See the attached grading rubric for the PowerPoint presentation.

On a separate sheet, you will pick your 1st, 2nd, and 3rd choices of autoimmune diseases that you

would like to do PowerPoint presentations on. The preference form must be received by Dr. Snazelle no later than Monday, September 1, 2008. After receiving all the student preference sheets, Dr. Snazelle will then make the assignments. As mentioned previously, the presentations will be given each Monday beginning Monday, September 29, 2008. The presentation is worth a maximum of 50 points. The autoimmune diseases from which preferences can be made are listed in Table 16-1, p. 403, of your textbook.

No later than the Friday before making your PowerPoint presentation, you will bring your presentation to Dr. Snazelle so that it can be loaded on the laptop to be used in class. ***Failure to do the preceding will result in a 5 point penalty on your presentation score.***

A copy of the rubric that will be used for grading your presentation is attached to this syllabus.

Grading Scale: The grading scale is as follows:

90 - 100 A
88 - 89 B+
80 - 87 B
78 - 79 C+
70 - 77 C
60 - 69 D
0 - 59 F

Unless you have excessive absences, your final grade for the course will be determined by adding your quiz point total, PowerPoint presentation score, and four exams scores together, divide by the total points possible, and then multiply by 100; the percentage you obtain can then be compared with the preceding grading scale to determine your letter grade.

Important Dates:

PowerPoint Preference Form Due, Monday, September 1, 2008
Exam #1- Wednesday, September 24, 2008
PowerPoint Presentations Begin – Monday, September 29, 2008
Fall Recess – Monday/Tuesday, October 13 – 14, 2008
Exam #2 - Wednesday, October 22, 2008
Last Day to Drop a Class, Friday, October 31, 2008
Exam #3 - Wednesday, November 19, 2008
Thanksgiving Recess – November 26 – 30, 2008
Exam #4 – Monday, December 15, 2008, 11:00 a.m. - 1:00 p.m.

E-mail: Like Mississippi College, I will only make contact with you at your _____@mc.edu address. Check your e-mail frequently.

Attendance: See p. 58, of the online 2008 - 2009 Mississippi College Undergraduate Catalog for the University's attendance policy, i.e. 12 absences (excused or unexcused) in a semester class meeting 3 times a week will result in the student receiving an "F" for the course.

**Academic
Honesty**

Statement: See p. 62, of the online 2008 - 2009 Mississippi College Undergraduate Catalog for what the University considers to be academically dishonest, the student's responsibility and consequences for academic dishonesty.

If you need special accommodations due to learning, physical, psychological, or other disabilities, please contact Dr. Buddy Wagner in the Counseling and Testing Center, Lowery 106. He may be reached by phone at (601) 925-3354 or by mail at P.O. Box 4016, Clinton, MS 39058. E-mail: bwagner@mc.edu

During the duration of this course, Dr. Snazelle reserves the right to make any changes in the syllabus he deems appropriate or necessary.

***TURN OFF YOUR CELL PHONE!!
During class, keep your cell phone and other electronic devices in your backpack, purse, etc. Cell phones and other electronic devices are not allowed to be on the desk, in your hand, etc. while class is underway. Also, iPods, MP3 players, etc. may not be used in class. Like cell phones and other electronic devices, iPods, MP3 players, etc. must be kept inside your backpack, purse, etc.***

Biology 5415
PowerPoint Presentation Grading Rubric
Fall 2008

Speaker _____

Date _____

Topic _____

Criteria	Description			Score
Dress – 5 points	Slovenly dressed – T-shirt or tank top, jeans with holes or patches or shorts, shoes (open toes, no socks) – up to 2 points	Casually dressed – golf type shirt, chinos, athletic shoes (white or other color with or without stripes, socks) – 3 to 4 points	Professionally dressed - ♂ (dress shirt, tie, dress slacks, lace-up dark shoes, socks not white); ♀ (pant suit, blouse or dress with appropriate dress-type shoes, etc.) – 5 points	
Presentation – 30 points	Poorly organized (too much material on slides, hard to see), presentation was read (word-for-word) – up to 22 points	Good organization (adequate material on slides, not hard to see), presentation sometimes was read (word-for-word) – 23 to 26points	Excellent organization (key points on slides, easy to see); presentation, was not read - 27 to 30 points	
Visuals – 10 points	Few (0 to 3), clarity poor, not effectively used in presentation – up to 6 points	Several (4 – 5), clarity poor to good, sometimes effectively used in presentation– 7 to 8 to points	Adequate number (6 or more), clarity good, effectively used throughout presentation – 9 to 10 points	
Title & Bibliography Slides – 5 points	Missing - 0 points	One or the other missing – 3 points	Both present – 5 points	
50 pts total			Total Points	

Comments: _____

Biology 5415
PowerPoint Presentation Autoimmune Diseases
Preference Form
Fall Semester
2008

Name _____

Autoimmune Diseases (See Textbook, Table 16-1, p. 403)

1st Choice _____

2nd Choice _____

3rd Choice _____

Perhaps you should do an online search for information before you make your choices.

Note: This completed form must be returned to Dr. Snazelle by Monday, September 1, 2008.