SYLLABUS
BIOLOGY 415/5415
IMMUNOLOGY
SPRING 2012

Credit, 3 semester hours; **Prerequisites**: BIO 305 and CHE 142 or Graduate Standing

Catalog Course Description:
Lecture three hours per week.

A study of multiple aspects of the immune response.

Lecture Schedule: W, 6:00 – 9:00 p.m., H100

Instructor: Theodore E. Snazelle, Ph.D.
Office - 109 Hederman Science Building (see posted office hours or webpage)
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925-3339 (office – voice mail after five rings)
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***Office Hours:** MF, 9:00 – 10:50 a.m.
M, 2:40 – 4:30 p.m.
TR, 10:00 a.m. – 12:10 p.m.
*other hours by appointment

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 Notes: Handouts

Learning Objectives: Students in this course will:
1. describe innate and adaptive immunity.
2. compare and contrast immunogens and antigens.
3. summarize antibody structure and function.
4. explain antigen-antibody interactions.
5. explain antibody structure genetics.
6 compare and contrast the biology of B and T lymphocytes.
7. explain the role of the MHC in the immune response.
8. describe the activation and function of T and B cells.
9. explain the role of selected cytokines in the immune response
10. compare and contrast tolerance and autoimmunity.

11. compare and contrast the different complement activation pathways
12. summarize and explain the four types of hypersensitivity.
13. explain transplantation immunology.
14. describe HIV/AIDS and its assault on the immune system

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.

Undergraduate Student Evaluation Methods and Grading Scale: Four 100 point unit lecture exams will be given. ***During the semester, eight ten point quizzes will be given.*** A total of two quiz scores will be dropped. A missed quiz is a dropped quiz. Lecture exams will be largely objective in format, e.g. multiple choice and true-false. Some short discussion and/or listing type questions may be included on the exams as well. Quizzes will be largely short answer.

The undergraduate grading scale is as follows:

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Your final average for the course will be determined by dividing the total number of points you make on your four lecture exams and quizzes by the total points possible; then, this decimal fraction is multiplied by 100 to give your final average as a percentage. Your final letter grade will be determined by comparing your final average for the course with the preceding grading scale.

If you are a senior graduating in May 2012, Dr. Snazelle will exempt you from the final exam

if you have at least an 80 average on the first three exams and quizzes; however, the exemption will NOT be granted unless you work one day of the Mississippi College Mathematics and Science Tournament which is scheduled for Thursday and Friday, February 2 - 3, 2012. The day you work for Dr. Snazelle will be of Dr. Snazelle's choosing, i.e. everyone can not work Thursday, as the tournament lasts for two days.

Graduate Student Evaluation Methods and Grading Scale: Four 100 point unit lecture exams will be given. ***During the semester, eight ten point quizzes will be given.*** A total of two quiz scores will be dropped. A missed quiz is a dropped quiz. Lecture exams will be largely objective in format, e.g. multiple choice and true-false. Some short discussion and/or listing type questions may be included on the exams as well. Quizzes will be largely short answer. PowerPoint presentations by pairs or threes of graduate students will be made on autoimmune diseases. Table 16.1, p. 403, in the Kuby textbook lists some of the autoimmune diseases on which PowerPoint presentations can be made. The PowerPoint presentations are worth a total of 40 points.

The graduate student grading scale is as follows:

90 - 100	A
86 - 89	B+
80 - 85	B
76 - 79	C+
70 - 75	C
60 - 69	D
0 - 59	F

Your final average for the course will be determined by dividing the total number of points you make on your four lecture exams, quizzes, and autoimmune disease PowerPoint presentation by the total points possible; then, this decimal fraction is multiplied by 100 to give your final average as a percentage. Your final letter grade will be determined by comparing your final average for the course with the preceding grading scale. ***Graduate students graduating in May 2012 are not eligible for exemption from the final exam.***

Important Dates:

Immunology lecture begins, Wednesday, January 11, 2012
Exam #1- Wednesday, February 15, 2012
Spring Break – March 9 – 18, 2012 – Friday night through Sunday.
Exam #2 - Wednesday, March 21, 2012
Graduate Student PowerPoint Presentations Begin, Wednesday, March 21, 2012
Last Day to Drop a Class, Friday, March 23, 2012
Exam #3 - Wednesday, April 11, 2012
Exam #4 – Wednesday, April 25, 2012, 6:00 – 9:00 p.m.
****Except for Exam #4, all exam dates are tentative.***

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

Attendance: See the Mississippi College Undergraduate Catalog or the Mississippi College Graduate Catalog for the University's attendance policy, i.e. 4 absences (excused or unexcused) in a semester class meeting once a week will result in the student receiving an "F" for the course.

Academic Honesty Statement: See the Mississippi College Undergraduate Catalog or the Mississippi College Graduate Catalog for what the University considers to be academically dishonest, the student's responsibility and consequences for academic dishonesty.

Regarding Disabilities: If you are a student who needs special accommodations due to learning, physical, physiological, or other disabilities, please contact Dr. Morgan Bryant, Director, Student Counseling Services. [In order for a student to receive disability accommodations under Section 504 of the Americans with Disabilities Act, he or she must schedule an individual meeting with the Director of Student Counseling Services immediately upon recognition of their disability (if their disability is known they must come in before the semester begins or make an appointment immediately upon receipt of their syllabi for the new semester). The student must bring with them written documentation from a medical physician and/or licensed clinician that verifies their disability. If the student has received prior accommodations, they must bring written documentation of those accommodations (example Individualized Education Plan from the school system). Documentation must be current (within 3 years). The student must meet with SCS face-to face and also attend two (2) additional follow up meetings (one mid semester before or after midterm examinations and the last one at the end of the semester). Please note that the student may also schedule additional meetings as needed for support through SCS as they work with their professor throughout the semester. Note: Students must come in each semester to complete their Individualized Accommodation Plan (example: MC student completes fall semester IAP plan and even if student is a continuing student for the spring semester they must come in again to complete their spring semester IAP plan). Student Counseling Services may be found in Alumni Hall Room #4 or may be contacted via email: mbryant@mc.edu or rward@mc.edu or by phone at 601-925-7791.

During the semester this course is taught, the professor reserves the right to make any changes in the syllabus deemed appropriate or necessary.

TURN OFF YOUR CELL PHONE!! During class, your cell phone must be turned off. Cell phones, iPhones, smart phones and other electronic devices are not allowed to be on the desk, in your hand, etc. while class is underway. These electronic devices are to be kept in your backpack, purse, etc. No listening to music while class is in session is allowed. Unless you are taking notes on your laptop, etc., turn it off and put it away.