IMMUNOLOGY

Biol 430 FALL 2011 Dr. Spilatro

Meeting time: T,Th 11:00 - 12:15, Bartlett 362
Text: Mak and Saunders, *Primer to the Immune Response,* 2008 or 2011 ed.
There will also be other assigned readings

❋❋❋PowerPoint and Question Bank downloads are available through Moodle❋❋❋

Tentative Schedule of Topics

Date	Topic	Assigned Reading	Quizzes
Aug 30	Course Introduction		
Sep 1 - Sep 27			
	Overview	Chapter 1	
	Components of the Immune System	Chapter 2	Sept 3
	Innate Immunity	Chapter 3	Sept 17
	Antibodies	Chapter 4	
Sept 29	**First exam**		
Oct 3 - Nov 1			
	Antigens and Technologies	Chapter 5	
	B-Cell Development, etc	Chapter 5	Oct 13
	MHC and Antigen Processing	Chapters 6 & 7	Oct 27
	T-Cells and TCRs	Chapters 8 & 9	
Nov 3	**Second exam**		
Nov 8 - Dec 2			
	Vaccination	Chapter 14	
	Immunodeficiencies & AIDS	Chapter 15	Nov 19
	Hypersensitivities	Chapter 18	Dec 1
	Transplantation	Chapter 17	
Dec 6 & 8	Presentations on autoimmune diseases		

Final Exam: Fri, Dec 16, 12:00 PM

On-line resources
Some class resources, the **Animations, Question Bank**, **PowerPoint files**, **MolnQuiry molecular modeling** and **research paper examples** can be accessed from the Immunology Resources page (which also can be accessed through Moodle) at www.marietta.edu/~spilatrs/biol430/dwnlds/immdwnlds.html

Course Objectives

The major objectives of this course are for you to:

1. Learn the basic organization and mechanisms of the immune system.
2. Understand relationship between immunology and human health.
3. Improve your library research and oral presentation skills.

Grading Scale	
97 - 100%	= A+
93 - 96%	= A
90 - 92%	= A-
87 - 89%	= B+
83 - 86%	= B
80 - 82%	= B-
77 - 79%	= C+
73 - 76%	= C
70 - 72%	= C-
67 - 69%	= D+
63 - 66%	= D
60 - 62%	= D-
< 60%	= F

Grading Policy

Student final grades will be determined as follows:

Lecture exams	2 x ≈125 =	≈250 points
Quizzes	6 x ≈20 =	≈120
Oral presentation		100
Final exam		≈125

	TOTAL	≈595

Late assignments will be docked 10% per day.

Exams & Quizzes

Exams and quizzes will be given on the days indicated on the syllabus and will cover readings (including library reserve material) and class discussion materials. If you cannot attend class the day of an exam or quiz due to an athletic event, field trip, etc, then I must be notified at least one week before, at which time we will arrange an alternative exam time. Makeup exams and quizzes will not be given for unexcused absences. Extraordinary circumstances will be dealt with on an individual basis.

Study Sessions

Weekly help sessions will be scheduled. These will be student-organized sessions to review end-of-chapter and question-bank questions. These are your best opportunity to review course materials and question bank questions before quizzes and exams. You are expected to have worked on question bank materials before coming to help sessions.

Academic Dishonesty

Academic dishonesty within the academic community is a very serious matter, because dishonesty destroys the basic trust necessary for a healthy education environment. Academic dishonesty is any treatment or representation of work as if one were fully responsible for it, when it is in fact the work of another person. Academic dishonesty includes cheating, plagiarism, theft, or improper manipulation of laboratory or research data or theft of services. A substantiated case of academic dishonesty may result in disciplinary action, including a '0' on the assignment, a failing grade in the course, or expulsion from the College.

Disabilities

Any student needing accommodations due to a documented disability should notify the instructor AND the Academic Resource Center (Andrews Hall, Third Floor, 376-4700) at the beginning of the semester for further instructions.

Office Hours

Location: Bartlett Biology Building rm 173, ext. 4748

Times: Monday. 8:30-9:30 AM; Wed. 4:00-5:00 PM

I will make every effort to be accessible at other times-- just drop in.

If I'm busy, we can schedule another time at which we can meet.

The oral presentation

Working with a partner you will make a 20 minute PowerPoint presentation (plus 5 minutes of questions) on an autoimmune disease selected from the choices listed below. Each group must make a presentation on a different disorder.

Topics to be covered in presentation

The presentation must cover the following topics:

- Symptoms
- Epidemiology
- Pathophysiology & underlying immunological mechanisms
- Triggers and Risk factors
- Treatment
- References
- Study questions

Expectations

Apply principles of good ppt design described in the file "Preparing effective PowerPoint presentations" posted on the course website
Must draw upon research of the secondary literature; ppt must include citations
Minimum of four 2^{O} sources used
Group members must equally share in research, preparation and presentation
Study questions should include 4 multiple choice and one short essay question

Students should print copies of ppt slides before the class presentations for note-taking

Due dates

9/20 - Topic selected
11/8 - Last day to schedule a meeting with Dr. S to review presentation and study questions. Ppt presentation is expected to be ~90% complete for meeting
11/22 - completed ppt file emailed to me for posting; must be formatted two slides per page.

Autoimmune diseases

- Autoimmune hemolytic anemia
- Celiac disease (gluten sensitivity)
- Insulin dependent (Type-I) diabetes
- Goodpasture's syndrome
- Graves disease
- Hashimoto's disease
- Myasthena gravis
- Multiple sclerosis
- Psoriasis
- Rheumatoid arthritis
- Systemic lupus erythomatosis

Other AI diseases must be approved by the instructor

Grading

Grades will be based upon:

- Quality of presentation
- Apparent understanding of topic
- Meeting of assignment due dates and expectations