

## **BMS 506: Introduction to Immunology (3 credits)**

### **Syllabus**

**Course Directors:** Gary Winslow [winslow@wadsworth.org](mailto:winslow@wadsworth.org); 473-2795.

**Meeting time and location:** Tuesday 3:30-5:00; DAI Auditorium.

#### **Participating Faculty:**

**Wadsworth Center :** Drs. Gary Winslow, William Lee, David Lawrence

**Albany Medical College :** Drs. Constantine Bitsaktsis, Eric Yager

**Course Description:** This is an introductory immunology course designed for non-majors, or individuals beginning their study in the field. Nine lectures on fundamental immunological processes will be presented and these will be followed by 3-4 weeks of student presentations. The goal of the formal lectures will be to provide students with the fundamental knowledge of the immune system. The students will apply the basic knowledge to a specialty area. The latter will form the basis of a 20-30 minute oral student presentation in an area of their interest. Quizzes on the formal lecture material and the required reading will be used to evaluate the students' learning, and will be given the week following each lecture.

#### **Learning objectives:**

- Develop a basic understanding of fundamental immunological processes.
- Identify the major cellular and tissue components which comprise the innate and adaptive immune system
- Demonstrate an understanding of how white blood cells, including lymphocytes, develop from undifferentiated precursors
- Learn how highly variable lymphocyte receptors are generated from a limited amount of genetic information.
- Acquire a basic understanding of the fundamental of the Major Histocompatibility

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- Understand how immune responses by CD4 and CD8 T cells, and B cells, are initiated and regulated
- Be able to discuss how the immune system distinguishes self from non-self
- Gain experience investigating and presenting a special topic related to immunity in health and/or disease

**Prerequisite :** Introduction to Cell and Molecular Biology or permission from the instructor. Students should be familiar with basic principles of biomedical sciences.

**Textbook:** Immunology, by Kuby et al. 6th edition.

**Grading:** Weekly quizzes on lecture material (40%), oral presentations (20%), final exam (40%).

## 2010 course organization and schedule:

## Course organization Spring 2010

## Tuesdays 3:30-5:30

date	Lecture #	TOPIC	LECTURER
1/26/10	1	overview	Gary Winslow
2/2/10	2	cells and organs/hematopoiesis	Gary Winslow
2/9/10	3	MHC and Ag processing	Gary Winslow
2/16/10		<b>Classes cancelled</b>	
2/23/10	4	techniques	Constantine Bitsaktsis
3/2/10	5	ags and antibodies	Constantine Bitsaktsis
3/9/10	6	Ig genes/abs	Constantine Bitsaktsis
3/16/10	7	Innate immunity	Eric Yager
3/23/10	8	B cells/leukocytes	William Lee
3/30/10		<b>Spring Break</b>	
4/6/10	9	T cells	Eric Yager
4/13/10	10	Discussion	Eric Yager
4/20/10	11	Immune cell functions	David Lawrence
4/27/10	12	Student presentations	
5/4/10	13	Student presentations	
5/11/10	14	<b>FINAL EXAM</b>	