# Chapter 42: The Immune System

#### Learning Objectives:

* Biology I: V2 – Outline representative mechanism that cells have evolved for communicating and coordinating their functions in a living organism; V3 – Explain how cell regulatory mechanisms ensure balance in living systems that interact continuously with their environments; V4 – Apply knowledge of cellular regulatory mechanisms to explanations of aberrant cell behavior.
* Biology II: III2 – Describe basic processes of infectious disease and defense against infection.

1. Group Project:

Select one of following disease that are due to disruptions of the immune system. Describe: 1) the etiology of the condition; 2) the signs/symptoms observed in the patient; 3) which component(s) of the immune systems are affected; and, 4) current treatments. Propose a mechanism for how the disorder could be cured.

Type 1 (insulin-dependent) Diabetes Mellitus  
Multiple Sclerosis   
Acquired Immunodeficiency Syndrome  
Severe Combined Immunodeficiency   
Graph vs. Host Disease (bone marrow transplant)  
Intrinsic and Extrinsic Asthma

2. In-Class Project:

A) Find the correct answers to Review Questions #4 to 12 on page 1333. Note the page of Chapter 42 on which you found the answer. Be prepared to share your group’s answers with the rest of the learning community.  
  
B) Find the correct answers to Review Questions #13 to 21 on pages 1333 and 1334. Note the page of Chapter 42 on which you found the answer. Be prepared to share your group’s answers with the rest of the learning community.

3. Outside of Class Homework:

Answer the following Critical Thinking Questions on page 1334: 22, 25, 28, 29