

BIOL 4550 / BIOL 6550: Immunology (Summer, 2019)

1. Course Information

Course number and section: BIOL 4550 (CRN #: 50705), BIOL 6550 (CRN #: 50715)

Course name: Immunology

Hours of credit: 4

Pre-requisites or co-requisites as listed in university catalogue: (BIOL 4550) (BIOL 1107K

Minimum Grade: C or BIOL 2XM1 Minimum Grade: C and BIOL 2XML1 Minimum Grade: C) and (BIOL 1108K Minimum Grade: C or BIOL 2XM2 Minimum Grade: C and BIOL 2XML2 Minimum Grade: C) and BIOL 3100 Minimum Grade: C; (BIOL 6550) Admission into the graduate program or permission of the instructor.

Classroom location and room number:

Lecture: M-R 12:45 pm - 2:10 pm, BC 2202

Lab: MW 2:30 pm - 5:20 pm, BC 3018

Department, College, University: Department of Biology, College of Arts and Sciences, Valdosta State University

2. Instructor Information

Instructor name: Dr. Jonghoon Kang

Instructor contact: BC 2217, 229-333-7140, jkang@valdosta.edu

Instructor office hours: TR 2:30 pm - 3:00 am

3. Course Description

Introduction to basic concepts of immunology, including antigen and antibody structure, the generation of diversity, the nature of T cell and B cell receptors, cellular cooperation, and the down regulation of immune responses.

Required texts, resources, and materials: How the Immune System Works · Lauren M. Sompayrac from Wiley-Blackwell; 5th edition

Required out-of-class activities: Reading lecture notes, presentation materials, and the textbook. Performing assigned projects.

4. Standards, Goals, Objectives, or Outcomes

outcomes:

The General Education Outcomes (<https://www.valdosta.edu/academics/general-education-council/ge-outcomes.php>).

AREA A1: Students will communicate effectively in writing by using appropriate conventions of correctness, style, tone, and organization and by adapting writing to audience and context.

AREA A2: Students will demonstrate mathematical proficiency by analyzing a variety of functions and solving various equations.

AREA D: Students will demonstrate understanding of the physical universe and the nature of science, and they will use scientific methods and/or mathematical reasoning and concepts to solve problems.

The departmental educational outcomes (listed in the university catalogue).

1. Develop and test hypotheses, collect and analyze data, and present the results and conclusions in both written and oral formats used in peer-reviewed journals and at scientific meetings.

3. Demonstrate an understanding of the cellular basis of life.

4. Relate the structure and the function of DNA/RNA to the development of form and function of the organism and to heredity.

Course objectives or outcomes:

Describe basic terminology in immunology.

Describe the underlying physical and chemical principles in immunology.

Demonstrate an understanding of basic computational techniques in immunology.

Demonstrate literature analysis capability. Graduate students need to select papers to present in consultation with the instructor.

Interpret clinical cases using basic principles of immunology.

Demonstrate competency for the immunology part in standard tests such as MFT, GRE, MCAT, and DAT.

Perform research to publish (optional)

5. Assignments (explicitly aligned with the goals, objectives, or outcomes)

General description of the assignments: Students are required to read the textbook to be covered before and after class. Some additional materials will be posted on the Blazeview and you need to study them before class. There will be four in-class tests and one final test.

Policies for missed assignments, make-up assignments, late assignments, and/or extra credit: If you miss any assignment due to medical or family-related emergency you can have make-up assignments as long as you prove the valid reason of your absence (documented). Otherwise no make-up tests or labs! And you will get a zero point for the missing part. Late assignments will not be accepted. If you miss the lab

this course. So, make sure that you attend all lectures as well as labs.

6. Assessment or Evaluation Policy

Explanation of how much each assignment contributes to the overall grade for the class:

Total Score (U) = 400 (In Class Exam) + 200 (Lab Practical) + 200 (Final) = 800

Total Score (G) = 400 (In Class Exam) + 200 (Lab Practical) + 100 (Term Paper) + 200 (Final) = 900

x

Explanation of how grades are assigned:

Total score (%)	Grade
$\geq 90\%$	A

