NJIT BIOLOGY

Course Syllabus

Spring 2025

BIOLOGY 350: Immunology

INSTRUCTOR:	John Yarotsky, PhD	**PHONE:**	973-642-7976
OFFICE:	CKB 340C	**EMAIL:**	yarotsky@njit.edu
LECTURES:	**Tues & Thurs 1-2:30 Kupf 210**		
OFFICE HOURS:	***Wed 3-6***		

DESCRIPTION:

The objective of this course is to facilitate an understanding of preliminary knowledge of the immune system in humans and other mammals. Students will be able to translate a basic understanding of the immune system and how that knowledge translates to further understanding medicine, research topics in cell biology, and broad topics in public health policy.

TEXTBOOKS:

KINDT, THOMAS. (2007) IMMUNOLOGY SIXTH EDITION. W.H. FREEMAN AND COMPANY, NEW YORK, NEW YORK. ISBN-13: 978-1-4292-0211-4

BIOLOGY 350:Immunology

WEEK	DATES	TOPICS
Week 1	Jan 21-23	Introduction to Immunology and Course Requirements Chapter 1: Overview of the Immune System
Week 2	Jan 28-30	Chapter 2: Cells and Organs of the Immune System Chapter 3: Innate Immunity
Week 3	Feb 4-6	Chapter 4: Antigens and Antibodies Chapter 5: Organization and Expression of Immunoglobin Genes
Week 4	Feb 11-13	Chapter 6: Antigen-Antibody Interactions Chapter 7: The Complement System
Week 5	Feb 18-20	**Exam 1** Chapter 8: The MHC Complex and Antigen Presentation
Week 6	Feb 25-27	Chapter 9: T-Cell Receptor Chapter 10: T-Cell Maturation, Activation and Differentiation
Week 7	March 4-6	Chapter 11: B Cell Maturation, Activation and Differentiation Chapter 12: Cytokines
Week 8	March 11-13	Chapter 13: Leukocyte Activation and Migration Chapter 14: Cell-Mediated Cytotoxic Responses Tolerance,
Week 9	March 18-20	**Spring Break-No class**
Week 10	March 25-27	Chapter 15: Hypersensitivity Reactions **Exam 2**
Week 11	April 1-3	Chapter 16: Tolerance and Autoimmunity Chapter 17: Transplant Immunology
Week 12	April 8-10	Chapter 18: Immune Responses to Infectious Diseases Chapter 19: Vaccines
Week 13	April 15-17	Chapter 20: AIDS and other Immuno-deficiencies Chapter 21: Cancer and the Immune System
Week 14	April 22-24	Cancer Immunotherapy Immunotherapy Technologies
Week 15	April 29-May1 May 6	Advances in Cancer **Exam 3**

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EXAMINATIONS:

⍟ Your final letter grade is based on lecture exams, class attendance along with participation, and quizzes. The exams will each be worth 30% of your grade. The remaining 10% of your grade is based on attendance/class participation, and quizzes.

Exams will be multiple choice tests consisting of 50-60 questions.

⍟ Extra credit is not an option.

ATTENDANCE POLICY:
Attendance is mandatory. Participation in the class is also mandatory.

Grade Scale:

A=90-100
B+=85-89
B=80-84
C+=75-79
C=70-74
D=65-69
F=64 or lower

This course will strictly adhere to the NJIT Honor Code!! Both the lecture and the lab will have zero tolerance for violations to the NJIT's University Code on Academic Integrity!!