INSTRUCTOR: John Yarotsky, PhD  
PHONE: 973-642-7976
OFFICE: CKB 340C  
EMAIL: yarotsky@njit.edu
LECTURES: Tues & Thurs 1-2:30 Kupf 106
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:

## Course Syllabus

**BIOLOGY 350: Immunology**

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATES</th>
<th>TOPICS</th>
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| Week 1 | Jan 17-19    | Introduction to Immunology and Course Requirements
                      | Chapter 1: Overview of the Immune System                               |
| Week 2 | Jan 24-26    | Chapter 2: Cells and Organs of the Immune System
                      | Chapter 3: Innate Immunity                                             |
| Week 3 | Jan 31-Feb 2  | Chapter 4: Antigens and Antibodies
                      | Chapter 5: Organization and Expression of Immunoglobin Genes           |
| Week 4 | Feb 7-9       | Chapter 6: Antigen-Antibody Interactions
                      | Chapter 7: The Complement System                                       |
| Week 5 | Feb 14-16     | **Exam 1**
                      | Chapter 8: The MHC Complex and Antigen Presentation                    |
| Week 6 | Feb 21-23     | Chapter 9: T-Cell Receptor
                      | Chapter 10: T-Cell Maturation, Activation and Differentiation         |
| Week 7 | Feb 28-March 2| Chapter 11: B Cell Maturation, Activation and Differentiation
                      | Chapter 12: Cytokines                                                 |
| Week 8 | March 7-9     | Chapter 13: Leukocyte Activation and Migration
                      | Chapter 14: Cell-Mediated Cytotoxic Responses Tolerance,              |
| Week 9 | March 13-17   | **Spring Break-No class**                                             |
| Week 10 | March 21-23  | Chapter 15: Hypersensitivity Reactions
                      | **Exam 2**                                                          |
| Week 11 | March 28-30  | Chapter 16: Tolerance and Autoimmunity
                      | Chapter 17: Transplant Immunology                                     |
| Week 12 | April 4-6    | Chapter 18: Immune Responses to Infectious Diseases
                      | Chapter 19: Vaccines                                                 |
| Week 13 | April 11-13  | Chapter 20: AIDS and other Immuno-deficiencies
                      | Chapter 21: Cancer and the Immune System                              |
| Week 14 | April 18-20  | Cancer Immunotherapy
                      | Immunotherapy Technologies                                            |
| Week 15 | April 25-27  | Advances in Cancer
                      | **Exam 3**                                                        |
EXAMINATIONS:

- Your final letter grade is based on lecture exams, class attendance along with participation, and quizzes. The exams will each be worth 25% of your grade. The remaining 25% 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!!