BIO 553 Advanced Topics in Immunology

(Spring, 2020)

Instructor: Yuntao Wu (Phone: 703-993-4299; email: ywu8@gmu.edu)
Office: PWII, Room 306

Text book: Cellular and Molecular Immunology
By Abul K. Abbas and Andrew H. Lichtman, 6 or 7th edition

Tuesday, 1:30 pm – 4:10 pm. K. Johnson Hall 252

(Important dates: Spring break: March 9-15; Reading days: May 5; Exam: May 12)

January 21nd:
- Introduction to Dr. Wu has his research in HIV Immunology.

January 28th:
- Basics of Flow-cytometry
  I. Introduction to Immunology:
    1). General properties of Immune response
    2). Cells and tissues of the immune system

February 4th:
  I. Recognition of Antigens:
    1). Antibodies and Antigens
    2). The major histocompatibility complex

February 11th:
  II. Recognition of Antigens:
    3). Antigen presentation
    4). Antigen receptors and accessory molecules

February 18th:
  III. Maturation, activation of regulation of lymphocytes
    1). Lymphocytes muturation

February 25th:
  III. Maturation, activation and regulation of lymphocytes
    1). T cell activation

March 3rd:
  III. Maturation, activation of regulation of lymphocytes
    2). B cell activation

March 10th: March Break (No class)

March 17th:
  III. Maturation, activation of regulation of lymphocytes
    3). Immunologic Tolerance

March 24th:
  IV. Effector Mechanism of Immune Response
    1). Cytokines
    2). Innate Immunity

March 31st:
  IV. Effector Mechanism of Immune Response
3). Cell mediated Immunity
April 7th:
   IV. Effector Mechanism of Immune Response
4). Humoral Immunity
April 14th:
   V. Immune system in Disease
      1) Immunity to Tumors
April 21st:
   V. Immune system in Disease
      2) Hypersensitivity and autoimmunity and transplantation immunology
      3) Acquired immunodeficiencies
April 28th:
   Final review
May 5th:
   Reading week (no class)

May 12th: Final Exam

Grading:

   Paper Presentation (20%)
   *Class participation (31%)
   Final Exam: multiple choice and short questions (49%)

Bonus for class activity: 5%

*Class participation (7%+ 24% = 31%)

- For each class attendance: 0.5%. Total: 14 classes x 0.5% = 7%
  (Grade will be deducted for missing class (0.5% reduction), late (0.1% deduction) and half class
  (0.25% deduction)

- Activity in class: 2% for each class. Total: 12 classes x 2% = 24%
  (excluding the first two class. Each student is required to ask at least 2 questions to the presenter
  to earn 2%. If good questions are asked, a bonus 0.5% will be awarded)

A+: 98-100%
A: 94-97%
A-: 90-93%
B+: 87-89%
B: 83-86%
B-: 80-82%
C+: 77-79%
C: 70-76%
D+: 60-69%
F: < 60%