BIO 553 Advanced Topics in Immunology

(Spring, 2019)

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, 4:30 pm – 7:10 pm. Colgan Hall 204

(Important dates: Spring break: March 11-17; Reading days: May 7; Exam: May 14)

January 22nd:
- Introduction to Dr. Wu has his research in HIV Immunology.
January 29th:
- Basics of Flow-cytometry
  I. Introduction to Immunology:
  1). General properties of Immune response
  2). Cells and tissues of the immune system
February 5th:
  I. Recognition of Antigens:
  1). Antibodies and Antigens
  2). The major histocompatibility complex
February 12th:
  II. Recognition of Antigens:
  3). Antigen presentation
  4). Antigen receptors and accessory molecules
February 19th:
  III. Maturation, activation of regulation of lymphocytes
  1). Lymphocytes muturation
February 26th:
  III. Maturation, activation and regulation of lymphocytes
  1). T cell activation
March 5th:
  III. Maturation, activation of regulation of lymphocytes
  2). B cell activation

March 12: March Break (No class)

March 19th:
  III. Maturation, activation of regulation of lymphocytes
  3). Immunologic Tolerance
March 26th:
  IV. Effector Mechanism of Immune Response
  1). Cytokines
  2). Innate Immunity
April 2nd:
  IV. Effector Mechanism of Immune Response
3). Cell mediated Immunity
April 9th:
 IV. Effector Mechanism of Immune Response
  4). Humoral Immunity
April 16th:
  V. Immune system in Disease
   1) Immunity to Tumors
April 23rd:
  V. Immune system in Disease
   2) Hypersensitivity and autoimmunity and transplantation immunology
   3) Acquired immunodeficiencies
April 30:
  Final review
May 7th:
  Reading week
May 14th: 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+: 97-100%
A : 93-96 %
A-: 90-92%
B+: 87-89%
B: 83-86%
B-: 80-82%
C+ 77-79%
C: 70-76%
D-: 60-69%
F: < 60%