Immunology Lecture and “Special Topics Laboratory”

Note for Spring 2023 students: this is an integrated 4-credit hour course currently listed as BIOL314 Immunology Lecture (3 credits) and BIOL453 Special Topics Laboratory (1 credit). Coinciding with the emergence of the pandemic, the department initiated the process to expand a historically lecture only course to have a laboratory component. The updated CofC catalog will reflect this change as Immunology becomes a 4-credit course. For the current semester, the lecture and lab courses are partitioned for registration purposes only. Students must be concurrently enrolled in both BIOL314 Lecture (3 credits) and Special Topics Laboratory (1 credit) to complete this course.

BIOL 314 Immunology Lecture (catalog description)

A comprehensive study of the cellular and molecular aspects of the immune response. Subjects covered will include antibody structure and function, immunogenetics, the biology of cell-mediated responses to autoimmunity, immunodeficiencies and the evolution of the immune system.

Prerequisite(s): BIOL 111, BIOL 111L, BIOL 112, BIOL 112L, and BIOL 211(or BIOL 213), and one year of chemistry
Prerequisite(s) or Corequisite(s): MATH 250 or equivalent course in statistics or permission of the instructor.

Greetings: Welcome to Immunology in a most exciting time to be learning about Immunology.

This course will be an intellectually rigorous adventure that will challenge you, require active participation, necessitate curiosity, time management, and self-motivation. This course is constructed to be at the level necessary for pre-health occupations and graduate programs. If you are unprepared to work hard and contribute to the class community, this is not a course for you. If, however, you are willing to fulfill expectations, you can expect to leave this course with a solid foundation of immunology upon which your capacity to understand yourselves, science, medical advances, and health outcomes can only be enhanced – Immunology the Fun Never Ends!

Instructor:
Ana Zimmerman PhD
Office: Rita Hollings Science Center Room 125 (first floor)
Office hours:
Tuesdays: 11 am - 12 pm.
Thursdays: 1 pm - 2 pm.
Please reach out to set up additional times if office hours listed are not feasible with your class schedule.
We can meet in person or by Zoom for additional office hours.

Lab: Rita Hollings Science Center Room 128 (first floor)
Email: zimmermana@cofc.edu.

Class Meetings:
In person lecture: Tuesdays and Thursdays 9:25 am -10:40 am in RITA 147 (first floor).
In person lab: Tuesday 1:00-4:00 in RITA 147 (first floor)

Instructor Expectations: Students should have a desire to learn more about the field of immunology and take ownership in their learning experiences. Students are encouraged to share their thoughts in class discussions, ask questions, have fun, and generally contribute to a cooperative learning environment.

Student Learning Objectives and Outcomes: The objective of this course is to enable students to understand the fundamental principles of immunology and develop an appreciation of synthesizing key concepts from a vast amount of experimental data that is rapidly emerging in this field.

After completing this course students should:

1) Demonstrate a fundamental knowledge of immunological processes at a cellular and molecular level.
2) Understand the principles governing vaccination and the mechanisms of protection against infectious diseases.
3) Understand and explain the basis of immunological tolerance, autoimmunity, transplantation, principles of cancer and emerging immunological therapies.
Assessment Methods and Performance Expectation:

Students will complete weekly reading and writing assignments, lab and computer based exercises, and several group projects in order to gain mastery of the material (25% of graded items). Students will also complete three in class exams and a comprehensive final exam (75% of graded material) to demonstrate individual understanding of stated learning objectives.

Course Format:
The course will occur primarily in person with course material divided into lectures, readings, Lab modules and activities. Online material for both the Lecture and Lab components of the course can be found under the “Content” section of our course homepage in OAKS.

Readings:
Textbook sections and Supplemental Readings posted are considered required reading unless noted otherwise.

Lecture Slides:
Slides shown in lecture will be posted in pdf format on the OAKS website. Slides are a supplement to in-person lectures and should not be viewed as a substitute for in-person attendance.

Assignments:
All written assignments should be submitted electronically to OAKS Drop Box. Each assignment should be saved in pdf format with your first and last name included in the file name.

Exams:
Three lecture exams and a comprehensive final exam (see syllabus for dates). Exams will cover material from lectures, assigned readings and online discussions.

Grading:
Grades will be posted for all assignments and tests online on OAKS.

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<th>Grade</th>
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<tr>
<td>A</td>
<td>93-100%</td>
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<td>90-92.5</td>
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Lecture:
- Exam I: 100 points
- Exam II: 100 points
- Exam III: 100 points
- Final Exam: 100 points

Special Topics and Lab:
Assignments/Lab Modules/Attendance = 100 points

Note: BIOL314 Lecture and BIOL463 Special Topics Lab constitute separate grades due to separate registration numbers.

Academic Integrity:
Students are responsible for understanding and adhering to College policies regarding academic honesty, as specified in the current Student Handbook [http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php](http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php).

Disability Accommodation:
To request classroom accommodation, you must first register with the Center for Disability Services at the beginning of the semester. This office will provide you with documentation that you can provide to the instructor when requesting accommodation. For more information, see [http://disabilityservices.cofc.edu/](http://disabilityservices.cofc.edu/)