

IMMUNOBIOLOGY
(PCB4233 - 3 credits)

Instructor Dr. Mauricio Rodriguez-Lanetty
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Office hours: Tuesday 2:00 – 4:00 pm and Thursday 12:00 – 1:45 pm
I do not respond to emails after 5:30PM
Classes: Tuesday and Thursday 9:30 – 10:45 am

Description: The immune system plays an important role in self/non-self recognition and is the defense system of the body in response to infection caused by foreign microorganisms. The students will learn about the cells, organs and biomolecules that constitute the immune system and what the consequences of a malfunctioning system would be.

Suggested Text Books:

- Murphy et. al. (2016) Janeway's Immunobiology. 9th edition. Garland Science.
ISBN#: 978-0815345053

Week Lecture

1	Discussion of the course & Introduction to immunology	
1	Getting the big picture of how the immune system works	
2	Cells and organs of the immune system	
2	Innate immunity Part I	
3	Innate immunity Part II	
3	Innate immunity Part III.	
4	Antibodies and antigen recognition by B cell receptors (BCR)	
4	Antigen recognition by T cell receptors (TCR)	
5	Gene rearrangement B and T cell receptors	
5	Exam 1	02/07/2017
6	MHC structure and Function	
7	Antigen processing and presentation and dendritic cells	
7	T cell activation/signaling	
8	T cell differentiation and tolerance.	
8	T cell selection and survival: thymus and peripheral	
9	T cell immunity/ T cell helpers / T cell regulatory	
9	T cell/ B cell cooperation / evolution of affinity	
9	Exam 2	03/16/2017
10	Spring Break	03/13/2017
10	Spring Break	03/18/2017
11	Antibody isotypes/ Immunological memory	
11	Mucosa Immune System/ Immune Tolerance to the gut symbiotic microbes	
12	Human Microbiome	
12	Comparative Immunology part 1	

13	Comparative Immunology part2	
13	Hypersensitivity	
14	Vaccination	
15	Exam 3	04/18/2017
16	Final Exam	04/25/2017

The schedule above is subject to changes based on the development of the class.

Assessment:

The students need to take at least three exams out of four exams that will be administered. The four exams are represented by three mid-term exams and one final exam (Accumulative). I-clicker questions are used to guide the instructor about progress in class and monitor **attendance**, which is **mandatory** and graded. Students also need to participate in the class forum on Blackboard, which is part of the grade.

Grading Scale:

90-100% = A, 80-89% = B, 70-79% = C, 60-69% = D and <60% = F. NO ROUNDING!

- Cell phones are not to be used in class (switch them off). Cell phone use during an exam is grounds for dismissal from the classroom and the student will receive a score of zero.
- Academic Honesty is expected. Cheating will not be tolerated. Students who are caught cheating will receive a grade “F” for the class.
- Make-up exams are given only with the approval of the instructor. The exams are comprehensive **essay exams**.

Honor Code:

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

Plagiarism is a serious offence will not be taken lightly. Plagiarism can be intentional (copying another student’s work, collaborating too closely with another student) or unintentional (not citing all references, collaborating too closely with another student.) The best ways to avoid unintentional plagiarism are to reference all

outside information, and to do all work on your own. If you have any questions about what is plagiarism, please ask the instructor. Instructors may use plagiarism detection software (such as [turnitin.com](https://www.turnitin.com)) to determine if plagiarism has taken place. Suspected acts of plagiarism may be investigated and taken to the FIU Grievance Committee. Plagiarism will result in you receiving a 0 grade for your assignment (no exceptions) and may also result in your suspension or expulsion from the University.