

Immunology
MBIO-602-01-4178, Fall Semester 2017
K-2038, HSC, University of Louisville

Instructors

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Course Content

MBIO 602 (3 credit hours) is an intensive lecture course designed to teach immunology to advanced PhD students from graduate programs related to biomedical research. Students will learn how the immune system works in health, and how its dysfunction is involved in many diseases.

Prerequisites

Class size is limited to 12 and requires approval of the course co-directors. Approval to register for the course generally requires that students currently be in PhD-level graduate programs in the life sciences or are well-versed in biochemistry/molecular cell biology from previous course work.

Classes

Classes are held Mondays and Wednesdays at 11:00AM – 12:50PM in the K building (School of Nursing) room K-2038. Lectures are presented in a standard PowerPoint format based primarily on content derived from the textbook, all 21 chapters of which will be covered. Attendance is required. Three in-class exams will test comprehension of the material with the majority of questions requiring written responses (phrases, sentences or paragraphs) and the minority multiple choice answers.

Course Materials

The required textbook for the class is *Cellular and Molecular Immunology, 9th edition*, by Abbas, Lichtman and Pillai. Elsevier Saunders, 2017 (ISBN 9780323479783). The overall lecture organization follows the textbook chapter sequence, Chapters 1-21. A free ebook is available through UofL at www.clinicalkey.com/#!/browse/book/3-s2.0-C20150023565.

Grading

Grades are based on three equally weighted, in-class exams that cover Chapters 1-7, 8-14 and 15-21 respectively. A final percent score will be calculated from the average of the three exam scores and used to assign a grade as shown below. The following grade scales are estimates based on scales used in recent years; the scale may vary somewhat from year-to-year at the discretion of the course co-Directors.

<u>Course grade</u>	<u>Approximate percent score</u>
A+	98-100
A	94-97
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D	69-65
F	<65

Title IX/Clery Act Notification

Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain confidential support from the PEACC Program (852-2663), Counseling Center (852-6585), and Campus Health Services (852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (852-5787) or University of Louisville Police (852-6111).

Disclosure to University faculty or instructors of sexual misconduct, domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is not confidential under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University's Title IX officer.

For more information, see the Sexual Misconduct Resource Guide:

<http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure>

Disabilities

Students who have a disability or condition that might impair their abilities to complete assignments or otherwise satisfy course criteria are encouraged to meet with the course instructor to identify, discuss, and document any feasible instructional modifications or accommodations. The student should notify the instructor no later than the end of the second week after such disability or condition is diagnosed.

Contact the University of Louisville's Disabilities Resource Center for more information at

<http://louisville.edu/disability>.

2017 lecture schedule
Immunology MBIO-602-01-4178
MW 11:00-12:50, K Building 2038

Course directors: Profs. Michele M. Kosiewicz and Thomas C. Mitchell

Required textbook: *Cellular and Molecular Immunology, 9th edition*; by Abul Abbas, Andrew Lichtman and Shiv Pillai. Elsevier Saunders, 2017. ISBN 9780323479783.

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Wk	Day	Date	Instructor	Reading	Description
1	Mon	21-Aug	-		no class
	Wed	23-Aug	Kosiewicz	Ch. 1	Overview of Immune Responses
2	Mon	28-Aug	Kosiewicz	Ch. 2	Cells and Tissues of the Immune System
	Wed	30-Aug	Fernandez	Ch. 3	Leukocyte Circulation & Migration into Tissues
3	Mon	4-Sep	-		Labor Day – no class
	Wed	6-Sep	Alard	Ch. 4	Innate Immunity
4	Mon	11-Sep	Alard	Ch. 4	Innate Immunity
	Wed	13-Sep	Kosiewicz	Ch. 5	Antibodies and Antigens
5	Mon	18-Sep	Mitchell	Ch. 6	MHC and Antigen Presentation to T Lymphocytes
	Wed	20-Sep	Mitchell	Ch. 7	Immune Receptors and Signal Transduction
6	Mon	25-Sep	M or K		EXAM I (Chapters 1 - 7)
	Wed	27-Sep	Mitchell	Ch. 8	Lymphocyte Receptors & Gene Rearrangement
7	Mon	2-Oct	Mitchell	Ch. 8, 9	Activation of T lymphocytes
	Wed	4-Oct	K/F/A		Exam I discussion
8	Mon	9-Oct	-		Midterm break – no class
	Wed	11-Oct	Kosiewicz	Ch. 10,11	Differentiation & Function of Effector T Cells
9	Mon	16-Oct	Mitchell	Ch. 12	B Cell Activation and Antibody Production
	Wed	18-Oct	Alard	Ch. 13	Effector Mechanisms of Humoral Immunity
10	Mon	23-Oct	-		no class
	Wed	25-Oct	Kosiewicz	Ch. 14	Immunity in Epithelial and Immune-Privileged Tissues
11	Mon	30-Oct	M or K		EXAM II (Chapters 8 - 14)
	Wed	1-Nov	Kosiewicz	Ch. 15	Immunologic Tolerance and Autoimmunity
12	Mon	6-Nov	M/K/A		Exam II discussion
	Wed	8-Nov	Alard	Ch. 16	Immunity to Microbes
13	Mon	13-Nov	Alard	Ch. 17	Transplantation Immunology
	Wed	15-Nov	Kosiewicz	Ch. 18	Immunity to Tumors
14	Mon	20-Nov	Kosiewicz	Ch. 19	Hypersensitivity Disorders
	Wed	22-Nov	-		Thanksgiving break – no class
15	Mon	27-Nov	Kosiewicz	Ch. 20	Allergy
	Wed	29-Nov	Kosiewicz	Ch. 21	Congenital and Acquired Immunodeficiencies
16	Mon	4-Dec	K or A		EXAM III (Chapters 15 - 21)
	Wed	6-Dec	-		no class
17	Mon	11-Dec	K/A		Exam III discussion
	Wed	13-Dec	-		end of semester

