

**MMG 851 Immunology
Syllabus
Fall, 2017**

The class meets on Mon & Wed from 3 to 4:20 PM in Natural Resources Building 001

Instructors

Dr. Kefei Yu
5175 Biomedical Physical Sciences
Phone: 884-5354
Email: yuke@msu.edu

Dr. Margaret Petroff
1230D Anthony Hall
Phone: (517) 432-1385
Email: petrof10@msu.edu

Dr. Cheryl Rockwell
B346 Life Sciences
Phone: 884-6692
Email: rockwelc@msu.edu

Dr. Katheryn Meek
5190 Biomedical Physical Sciences
Phone: 884-5361
Email: kmeek@msu.edu

Recommended text books

1. Janeway's **Immuno Biology**, 8th edition, ISBN 978-0-8153-4441-4.
2. Abbas et al. **Cellular and Molecular Immunology**, 7th edition, ISBN 978-1-4377-1528-6
3. Lecture slides are available on D2L after each class

Course Objectives

This is an advanced immunology course that requires previous knowledge of general biology, biochemistry, cell biology, physiology and genetics. The students are expected to be familiar with the nomenclatures used in the field of immunology. Upon completion of the course, the students are expected to have an insightful understanding of the components of the immune system and the principles of how the immune system works.

Exams (total points = 100)

First mid-term	30 pts
Second mid-term	30 pts
Final exam	40 pts

Missing any exam will result in loss of points of that exam. The only acceptable reasons for missing an exam will be illness, a personal emergency, a pre-scheduled, out-of-town interview for admission into a professional program, or a sanctioned MSU competition (excluding attendance as a spectator). In such an event, the instructor should be contacted before the exam and provided with the appropriate documentation. Illness should be documented with a doctor's certificate, whereas other appropriate documentation must be provided in the case of an emergency (for example an obituary), interview (letter of invitation) or major competition (certificate from the appropriate department).

UNIVERSITY REGULATIONS STATE CLEARLY THAT THE SCHEDULING OF TRIPS PRIOR TO OR ON THE DATE OF THE FINAL EXAMINATION IS NOT AN EXCUSE FOR REQUESTING AN EARLY OR LATE EXAMINATION.

Make-up Exams

If a student does miss an exam due to a justifiable reason, a make-up exam will be provided **within 3 days after** the regular exam. The questions may be different from those in the regular exam. **There will be no make-up for the final exam.**

Bottom line: for the sake of fairness to all, **DO NOT MISS ANY EXAM!**

Grading

Grade	Score (%)
4.0	90-100
3.5	80-89
3.0	70-79
2.5	65-69
2.0	60-64
1.5	55-59
1.0	50-54
0	<50

This is a tentative grading scale. Adjustments will be made if necessary.

Academic Honesty

- 1.** Article 2.3.3 of the Academic Freedom Report states: "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards."
- 2.** In addition, the Microbiology and Molecular Genetics Department adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: www.msu.edu.)

Lecture	Date	Topic	Instructor
1	Aug. 30	Overview	KY
	<i>Sep. 4</i>	<i>Holiday-University Closed</i>	
2	Sep. 6	Antigen receptors	KY
3	Sep. 11	VDJ recombination	KY
4	Sep. 13	Somatic hypermutation and class switching	KY
5	Sep. 18	Evolution of the adaptive immunity	KY
6	Sep. 20	Major Histocompatibility Complex	KY
7	Sep. 25	Antigen Presentation	KY
8	Sep. 27	B cell development	KY
9	Oct. 2	B cell activation and differentiation	KY
10	Oct. 4	Germinal Center	KY
	Oct. 9	First Exam	
11	Oct. 11	T cell development	CR
12	Oct. 16	T cell activation and priming	CR
13	Oct. 18	T cell differentiation	CR
14	Oct. 23	Innate vs. Adaptive Immunity	MP
15	Oct. 25	Innate Immunity	MP
16	Oct. 30	Paper: Innate immunity; Debate Assignment	MP
17	Nov. 1	Antiviral immunity	MP
18	Nov. 6	NK cells	MP
	Nov. 8	Second Exam	
19	Nov. 13	Tumor immunology	MP
20	Nov. 15	Paper: Immune checkpoints	MP
21	Nov. 20	Transplantation	MP
22	Nov. 22	Paper: Transplantation/Pregnancy	MP
23	Nov. 27	Vaccines	MP
24	Nov. 29	Debate: Vaccines	MP
25	Dec. 4	Immunodeficiencies	KM
26	Dec. 6	Autoimmunity	KM
	Dec. 11	Final exam: 3-5pm, BPS 2245	