

Immunology (BIOL 4050)
Fall 2015 (Bowman-Oddy 1045)

Dr. Anthony Quinn

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Office Hours: Wed 10-11am; appointments preferred

Required text - "The Immune System" Peter Parham (third edition) **ISBN: 9780815341468**

****Reading assignments should be completed prior to the lecture**

Students are expected to attend all lectures

The use of cell phones or other communication devices is disruptive and prohibited during class.

Course Description: Lectures on the chemical, genetic, and cellular basis of the immune response.

Prerequisites: BIOL 3030 (BIOL 3070 recommended)

Learning Objectives

Students who successfully complete the course will be able to:

Define and describe the cells and organs of the immune system

Distinguish between the innate and adaptive immunity

Explain the molecular basis for antigen recognition/specificity

Recognize the influence of genetic inheritance on the immune response

Define the characteristics of allergy, autoimmunity, and tissue/organ rejection (transplantation)

Course Outline*

*(subject to changes at the instructor's discretion)

<u>Date</u>	<u>Topic</u>	<u>Chapter</u>
Aug 24	Overview of Immunology	
Aug 26	White blood cells;Antibodies	1.6 – 1.13, 3.1-3.5, 4.1-4.5
Aug 28	Ab Structure	4.7-4.16
Aug 31	Ab Structure	4.7-4.16
Sep 2	Ab Structure, B cells	3.12-3.15, 6.1-6.10
Sep 4	Dev of B cells	6.1-6.10
Sep 7	No class Labor Day	
Sep 9	Dev of B cells	6.11-6.16
Sep 11	Dev of B cells	6.11-6.16
Sep 14*	<u>Exam I (Chp 1#, 3#, 4, 6) #sections listed above</u>	
Sep 16	TCR Diversity	5.1-5.5
Sep 18	Ag Processing	5.5-5.16
Sep 21	Ag Processing	5.5-5.16
Sep 23	MHC	5.17-5.22
Sep 25	Dev. of T Cells	7.1 -7.7
Sep 28	Pos & Neg selection	7.8-7.15
Sep 30	T cell Immunity	8.1-8.6
Oct 2*	<u>Exam II (Chp 5, 7)</u>	
Oct 5	No Class Fall Break	
Oct 7	T cell immunity	8.7-8.12
Oct 9	T cell immunity	8.13-8.19

<u>Date</u>	<u>Topic</u>	<u>Chapter</u>
Oct 12	B cell immunity	9.1-9.8
Oct 14	B cell immunity	9.9-9.16
Oct 16	B cell immunity	9.17-9.25
Oct 19*	<u>Exam III (Chp 8, 9)</u>	
Oct 21	Innate Immunity	2
Oct 23	Innate Immunity	2
Oct 26	Infection & Immunity	10.1-10.11
Oct 28	Infection & Immunity	10.12-10.29
Oct 30	Evasion of Immunity	11.1-11.7
Nov 2	Evasion of Immunity	11.8-11.12
Nov 4	Immunodeficiency	11.12-11.25
Nov 6	HIV AIDS	11.18-11.25
Nov 9	HIV AIDS	11.18-11.25
Nov 11	No Class – Veteran's Day	
Nov 13*	<u>Exam IV (Chp 2, 10, 11)</u>	
Nov 16	Hypersensitivity	12.1-12.3
Nov 18	Hypersensitivity	12.1-12.16
Nov 20	Hypersensitivity	12.17-12.21
Nov 23	Hypersensitivity	12.22-12.24
Nov 25	No Class –Thanksgiving Break	
Nov 27	No Class –Thanksgiving Break	
Nov 30	Autoimmunity	13
Dec 2	Autoimmunity	13
Dec 4	Vaccines	14
Dec 7	Vaccines	14
Dec 9	Transplantation	15
Dec 11	Transplantation	15
Dec 15*	<u>Final Exam (Chp 12-15)</u>	
(Tues, 10:15am)		

GRADING: A- to A = >90%; B- to B+ = >80%; C- to C+ = >70%; D- to D+ = >60%
Exams are usually graded on a curve, such that the highest class score = 100%
Make-up Exams are usually in an essay format, with no extra credit points
The lectures are taken directly from the textbook

Final Grade calculation

<u>Exam</u>	<u>% of grade</u>
I	15
II	20
III	20
IV	20
<u>Final</u>	<u>25</u>
	100

STATEMENT OF ACADEMIC DISHONESTY

Department of Biological Sciences

Academic dishonesty by students enrolled in undergraduate and graduate courses and programs offered by the Department of Biological Sciences will not be tolerated. Academic dishonesty includes but is not limited to:

1. Obtaining assistance from another individual during an examination.
2. Giving assistance to another individual during an examination.
3. The unauthorized use of study material or textbooks during an examination.
4. Changing answers on an examination after it has been returned and then submitting it for regrading.
5. Plagiarizing written assignments. Plagiarizing includes but is not limited to: a) Copying laboratory reports from previous years, b) copying or paraphrasing reports, term papers, or these prepared by other students, c) unauthorized collaboration in the preparation of reports, term papers, or theses, and d) use of another author's materials without appropriate acknowledgement through quotation and citation.
6. Attempting to bribe or otherwise induce an instructor to alter either a grade or examination score.
7. Obtaining or attempting to obtain a copy of an examination prior to its administration.

In accordance with policies presented in The Student Handbook and The University Catalog, Instructors have the responsibility and right to report cases of alleged dishonesty to departmental, college, and university administrative units. Students involved in academic dishonesty may expect to receive a grade of F on specific assignments as well as in the course where the assignment was made. In addition, disciplinary action may be recommended through appropriate college and university disciplinary committees. Please consult your instructor for instructions on the implementation of this policy.