



Overview

Course Prefix, Course Number, Title: BIOL465-04282 Immunology

Credits: 4

Meeting Days, Times, and Location: M W F 09:00am-09:50am Moore 210

Tu 09:00am-11:50am Swain 304

Semester/Year: 2020 Spring

Campus Connection Course Dates: 01/13/2020 - 05/15/2020

Mode of Delivery: On Campus Face to Face

Instructor Information

Heidi Super

heidi.super@minotstateu.edu

Office Location: 217 Cyril Moore Science Center

Office Hours: Anytime by appointment

Phone: 701-858-3079

Course Details

Catalog Description: Principles and techniques of immunology and serology. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150.

Prerequisite/Corequisite Courses: Prerequisite: Students must complete BIOL 150 before enrolling in this course.

Placement Policies: none

Course description

An introductory course in immunology, focusing on cell biology and molecular mechanisms related to the mammalian immune response. Major focus will include the description of the normal immune response during infection and immunization with some coverage of immune dysfunction related to allergy and disease. Immunotherapy for diseases, including cancer will be discussed.

Required Course Materials



Janeway's Immunobiology

9780815345510

Murphy, Kenneth M., Weaver, Casey

W.W. Norton & Company

2016-03-22

Student Learning Outcomes

1. Biology majors will demonstrate, interpret, synthesize, and apply biological processes and content to specific biological topics

Course Objectives

1. Outline hematopoiesis and describe functions of different blood cell types
2. Understand the key components innate immunity
3. Understand the key components of adaptive immunity
4. Describe the development of antigen receptors in lymphocytes
5. Describe the mechanism for activation of lymphocytes
6. Describe the effector functions of lymphocytes
7. Understand the role of immunity in tumor suppression and the manipulation of the immune system in cancer treatment
8. Describe several examples of immune dysfunction

Assignments and Grading

Grading Policy and Scale:

Basis for grade assignment

A 90-100%

B 80-89%

C 70-79%

D 60-69%

F Less than 60%

Assignments and Descriptions and Tentative Due Dates:

Point distribution (subject to minor modification)

Quizzes 240-320 pts

Term Paper/presentation 50 pts

Lab ~100 pts

Final exam 80-100 pts

Quizzes will be administered approximately every third week. A presentation or research paper will be assigned at mid-term and presented in the final 2 weeks of the course.

Tentative Course Outline:

Week 1 Jan 15-17	Introduction/guidelines/intro to immunology CHPT 1
Week 2 Jan 20-24	Jan. 20th NO class---Martin Luther King Jr. Day Innate immunity—CHPT 2/3
Week 3 Jan 27-31	Innate immunity— CHPT 2/3
Week 4 Feb. 3-7	Adaptive immunity (antigen recognition) CHPT 4 Quiz 1-Feb. 3
Week 5 Feb 10-14	Adaptive immunity (antigen recognition) CHPT 4
Week 6 Feb 17-21	No class Feb 17--Presidents' Day No Lab Feb. 18--Assessment Day Quiz 2 Feb. 19 Generation of B and T-cell receptors CHPT 5
Week 7 Feb 24-28	Generation of B and T-cell receptors CHPT 5
Week 8 March 2-6	Quiz 3-March 2 Antigen presentation to T cells
Week 9 March 9-13	Development, signaling and survival of B and T cells
Week 10 March 16-20	Spring Break

Week 11 March 23-27	Quiz 4--March 23 Putting it all together—Immunity by T-cells (CHPT 9)
Week 12 March 30-April 3	Putting it all together—Immunity by T-cells (CHPT 9)
Week 13 April 6-10	Quiz 5--April 6 No class April 10 Humoral immunity—Immunity by B cells (CHPT 10)
Week 14	No class April 13 Humoral immunity—Immunity by B cells (CHPT 10)
Week 15	The Big Picture---The immune response (CHPT11)
Week 16	The Big Picture---The immune response (CHPT11)
Final exam	Monday, May 11, 2020 8:00-9:50 am

Important Dates

Final Exam Date and Time: (instructor to input)

Monday, May 11, 2020 8:00-9:50 am

Assessment Day: February 18th, 2020

Late and Missed Work

EXAM POLICY—check the exam dates ASAP!

If you fail to take an exam at the designated time (due to illness, official MSU event or other emergency only) I will allow you to make arrangements to take it within 2 school days. However, I require you to *contact me personally* (**confirmed email, phone call or personal discussion**) as soon as you know you will miss the exam. e.g. Unless you are hospitalized, unconscious, etc., you must notify me before the scheduled exam. You will not be excused for non-emergency appointments (dentist, haircut, work schedule, etc).

Late and Missed Work Policy: Work must be handed by its designated due date/time, except in emergency situations. Late work must be handed in in person, with a viable explanation. Late work placed on my desk or slid under my office door will be returned ungraded and given a score of 0% of possible points.

Attendance Policy

University Attendance Policy

<http://www.minotstateu.edu/records/pages/policy-class-attendance.shtml>

Class-specific Attendance Policy

ATTENDANCE POLICY/TEACHING PHILOSOPHY

I do not track or award points for attendance to lecture. Regular attendance is simply expected. For most students, academic success correlates with regular attendance. Students are responsible for all information disseminated at each lecture including changes to quiz dates, assignments or due dates. Points may be earned through assignments given in lecture, and **students must be present in lecture to earn those points.** If you have a specific reason for often leaving early or arriving late during a lecture, please inform me.

University Sanctioned Events Policy

Minot State University has a commitment to students who represent the University in official capacities. University-sanctioned activities include events that are required or encouraged by a class, program, club, or athletic team. When a student has a scheduled absence due to a university-sanctioned activity, it is the student's responsibility to communicate with the faculty member prior to his or her absence.

Please refer to attendance and exam policy for any type of absence, including University-sanctioned activities. In general, all exams, and major assignments are available for full-point make up if missed for a university-sanctioned event. However, occasional, spontaneous, unscheduled, in-class activities may also be awarded points which accumulate toward a final grade. Points for these activities cannot be awarded to students missing class for any reason. However, students can expect only ~5% of points to be earned from in-class activities.

Academic Honesty Policy

CELL PHONE POLICY

The classroom will be a cell phone-free zone, where students and instructors deserve uninterrupted time. It is expected that no phones will ring or vibrate audibly and **no texting** will occur during lecture OR lab hours in my class. **Texting or cell phone use of any kind during exams will result in a zero for the exam, no questions asked, no second chances.**

Cheating of any kind can result in a zero for the assignment/exam, reporting in Starfish, and penalties outlined in the undergraduate catalog and MSU student

handbooks.

Penalty for Violating the Policy

Academic Honesty Policy with Penalty for Violating the Policy: (see the information in the [Undergraduate Catalog](#) and in the [Graduate Catalog](#); also see the [Student Handbook](#))

ADA Accommodation Statement

In coordination with Access Services, reasonable accommodations will be provided for qualified students with disabilities (LD, Orthopedic, Hearing, Visual, Speech, Psychological, ADD/ADHD, Health Related, TBI, PTSD and Other). Please meet with the instructor during the first week of class to make arrangements. Accommodations and alternative format print materials (large print, audio, disk or Braille) are available through [Access Services](#), in person, by phone 701-858-3372 or by e-mail at evelyn.klimpel@minotstateu.edu.

Non-discrimination Statement

Minot State University subscribes to the principles and laws of the state of North Dakota and the federal government pertaining to civil rights and equal opportunity, including Title IX of the 1972 Education Amendments. Minot State University policy prohibits discrimination on the basis of race, gender, religion, age, color, creed, national or ethnic origin, marital status, sexual orientation, gender identity, or disability in the recruitment and admission of students and the employment of faculty, staff, and students, and in the operation of all college programs, activities, and services. Evidence of practices which are inconsistent with this policy should be reported using the Student Complaint and Anti-Discrimination Form located here: <https://form.jotform.com/72996849416981>.

For the complete non-discrimination statement, visit [here](#).

Title IX Statement

Minot State University (MSU) faculty are committed to helping create a safe learning environment for all students and for the university as a whole. If you have experienced any form of gender or sex-based discrimination or harassment, including non-consensual sexual intercourse, sexual harassment, relationship violence, or stalking, know that help and support are available. MSU has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The University strongly encourages all students to report any such incidents to the University. Please be aware that all MSU employees (other than those designated as confidential resources such as advocates, counselors, clergy, and healthcare providers) are required to report information about such discrimination and harassment to the University. This means that if you tell a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the University's Title IX Coordinator. If you wish to speak to a confidential

employee who does not have this reporting responsibility, you can find a list of resources on the Title IX website. For more information about your options, please visit the Title IX website: <https://www.minotstateu.edu/title9/>.