

# **BSC 520.01W -Advanced Immunology**

Summer I 2025
East Texas A&M University
Online Course

Hyun-Joo Nam, Ph. D. she her Email: <a href="mailto:hyun-joo.nam@tamuc.edu">hyun-joo.nam@tamuc.edu</a>
Office Location: NHS 331

Please e-mail me if you have a question. I will try to respond within 24 hours, except for weekends and holidays.

Office Hours: Thursday, 2-3 PM or 7-8 PM (Zoom only), or by appointment. I enjoy teaching and talking with you. If you have questions, drop by my office or join the Zoom session (link below) during office hours. If the time does not work for you, feel free to email me, and we can set up a time that does.

#### Office Hour Zoom link:

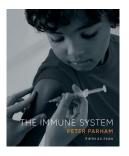
https://tamuc.zoom.us/j/7032367457?pwd=RkFQZmtkcm90emNnUGNDL0E0Sjg0UT09

Meeting ID: 703 236 7457

Passcode: OH

## **Course Summary**

**Textbook(s) Required: The Immune System** 5<sup>th</sup> Edition, **Peter Parham,** ISBN-13: 978-0393533354, eBook- 978-0393533347 This book is available for purchase or rental at the TAMUC bookstore and can be bought or rented from various local and online retailers.



### **Course Description:**

This course is designed for graduate students with a thorough background in biology and cell biology. Therefore, this course provides students with a review of basic immunological principles and the generation of immune responses. Emphasis will be placed on human physiology and the cooperative interplay between innate and acquired immunity. An in-depth

The syllabus/schedule are subject to change.

view of the immune system will be sought in the context of immune effector mechanisms as well as the immune system in health and disease. Principles and applications of antibody-antigen interactions will also be discussed. Students are expected to learn the principles and concepts of immunology both at the molecular and cellular levels, to learn to reason scientifically, and to understand and describe the function of immune systems in the human body. Prerequisites: An undergraduate degree in Biology or related discipline or permission from instructor.

#### **Course Student Learning Objectives (SLO):**

Upon completion of this course, you should be able to:

- 1. Explain how the innate and adaptive immune responses coordinate to fight invading pathogens.
- 2. Compare and contrast humoral versus cell-mediated immune responses.
- 3. Understand the role of cytokines in immunity and immune cell activation; and be able to identify and characterize cytokines of particular immune importance
- 4. Identify immunomodulatory strategies, either to strengthen it against diseases or to reduce its activity in cases such as allergic reactions, organ transplants, or autoimmune conditions.
- 5. Articulate the ramifications of immunodeficiency with particular emphasis on acquired immunodeficiency.

## **Course Requirements**

#### **Minimal Technical Skills Needed:**

Standard skills necessary to use web browsers to access course materials are required. Students should also be able to submit their work as required. Students should be able to use Microsoft Word and PowerPoint.

#### **Instructional Methods:**

This is a fully online course. All course materials will be posted in D2L. I will post announcements on the course's home page or send email notifications.

#### Student Responsibilities or Tips for Success in the Course

- ✓ Checking both D2L and emails for course-related announcements.
- ✓ Dedicated time to learn course materials. Lecture videos will be uploaded each week. It is important to watch the videos and complete the assigned reading each week.
- ✓ Have the required technology (a computer, a secure and reliable internet connection, and other requirements detailed in this syllabus – please read the "Technology Requirements" section.
- ✓ Take exams within the specified time.
- ✓ Submitting the assignment before deadlines.

✓ If special accommodation needs to be made, notify the instructor in advance.

#### **Assessments:**

There will be 4 types of assessments that will contribute to the grade. These are:

- ✓ Quiz 1~4: 20 % (5% each)
- ✓ Exam 1~3: 60 % (20% each)
- ✓ Assignment: 20 %

Exams and Quizzes consist of multiple-choice and short-answer questions. Questions are drawn from the same test pool. Therefore, some questions may be repeated. Students are expected to ensure they have the necessary device and a reliable connection.

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70% - 79%

D = 60%-69%

F = 59% or Below

#### Important information:

- 1. It is the student's responsibility to check emails and D2L for exam dates and, homework/ assignment postings & deadlines.
- 2. There will not be additional points or extra credits. A student's grade will come from the points they earn in the listed assessments.
- 3. Exams: open-book and open notes
  - (a) You will have one to two minutes to answer each question. If an exam has 40 questions, you must complete and submit them in 60 minutes.
  - (b) Please read the instructions, if any, carefully before beginning the exam.
  - (c) Exams are usually held on Fridays~Sunday. Students can take the exam online during this 72-hour time window. The schedule is subject to change.
  - (d) No requests to open the exams earlier will be accepted.
  - (e) Make-up exam requests must accompany supporting documents (e.g., a doctor's note). The reasons for not taking an exam within the designated time should be acceptable, as outlined in your student handbook.
  - (f) Failure to take the exams within the designated time will result in ZERO credit.
- 4. Quiz: Open book and open notes
  - (a) You will be typically given 1 hour to finish a quiz with 10 questions.
  - (b) Quizzes are usually open on Wednesday at 6:00 PM and are due on Sunday at 11:59 PM.
  - (c) The same rules apply for missed guizzes as do for exams.
- 5. The assignment should be submitted before the deadline. The assignment will be checked for plagiarism.

Assessment	Time/Due dates	Percentage of the final grade
Quiz 1	Jun 4-8	5 %
Exam 1	Jun 6-8	20 %
Quiz 2	Jun 11-15	5 %
Exam 2	Jun 13-15	20 %
Quiz 3	Jun 18-22	5 %
Exam 3	Jun 20-22	20 %
Quiz 4	Jun 25-29	5 %
Exam 4	July 27-29	20 %
Assignment	July Aug 2	20 %

3.

## **COURSE OUTLINE / CALENDAR**

Week	Lectures	Textbook
1	Intro to Immunology Immune System	Chapter 1
6/2	Innate Immunity	Chapter 2, 3
	Antibody	Chapter 4
	Quiz 1/Exam 1 due on Jun 8	
2	Antibody Diversity	Chapter 4
6/9	T-cell Receptor/MHC	Chapter 5
	B-cell maturation	Chapter 6
	T-cell maturation	Chapter 7
	Quiz 2/Exam 2 due on Jun 15	
3	T-cell immune response	Chapter 8
6/16	B-cell immune responses	Chapter 9
	Vaccination and vaccines	Chapter 11
	Immune-system dysregulation by allergens	Chapter 14
	Quiz 3/Exam 3 due on Jun 22	
4	Autoimmunity	Chapter 16
6/23	Transplantation immunology	Chapter 15
	Immunodeficiency	Chapter 13
	Quiz 4/Exam 4 due on Jun 29	
5	Assignment due July 2	
6/30		

## **TECHNOLOGY REQUIREMENTS**

## **LMS**

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

The syllabus/schedule are subject to change.

#### LMS Requirements:

https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

## LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\_support.html

## Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom Account.aspx ?source=universalmenu

#### **ACCESS AND NAVIGATION**

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

#### **COMMUNICATION AND SUPPORT**

If you have any questions or are having difficulties with the course material, please contact your Instructor.

#### **Technical Support**

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

The syllabus/schedule are subject to change.

## **University Specific Procedures**

#### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the <u>Student Guidebook</u>.

http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <a href="https://www.britannica.com/topic/netiquette">https://www.britannica.com/topic/netiquette</a>

#### **TAMUC Attendance**

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedures 13.99.99.R0.01</u>

http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

## **Academic Integrity**

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

<u>Undergraduate Academic Dishonesty 13.99.99.R0.03</u> <u>Undergraduate Student Academic Dishonesty Form</u>

 $\frac{http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf} \\$ 

**Graduate Student Academic Dishonesty Form** 

 $\underline{http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishone} \\ \underline{styFormold.pdf}$ 

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

#### Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

#### Office of Student Disability Resources and Services

East Texas A&M University Velma K. Waters Library Rm 162 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148

Email: <a href="mailto:studentdisabilityservices@tamuc.edu">studentdisabilityservices@tamuc.edu</a>

Website: Office of Student Disability Resources and Services

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

#### **Nondiscrimination Notice**

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

## **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and East A&M-Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

#### Web url:

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all East Texas A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

## East Texas A&M Supports Students' Mental Health

The Counseling Center at East Texas A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit <a href="https://www.tamuc.edu/counsel">www.tamuc.edu/counsel</a>

## Al use policy [Draft 2, May 25, 2023]

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors 'guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty