

THE UNIVERSITY OF TEXAS AT EL PASO	
COLLEGE OF SCIENCE	
DEPARTMENT OF BIOLOGICAL SCIENCES	
TENTATIVE SYLLABUS	
Course #:	Advanced Concepts in Immunology BIOL 4395
Course Title:	In-depth understanding of new and clinically relevant immunological concepts with emphasis on important breakthroughs.
CRNs:	27578
Credit Hrs:	3.0
Term:	Spring 2022
Course Meetings & Location:	Lectures:
Time:	1:30-3:00p
Days:	Tue (T)-Thr (R)
Prerequisite Courses:	Junior and Senior Biology Majors
Instructor:	Dr. Charlotte M. Vines , Associate Professor, Dept. of Biol. Sciences
Office Location:	Department of Biological Sciences, Biosciences Bldg., Room 4.126
Contact Info:	E-mail: cvines@utep.edu
Office Hrs:	Tuesday 4 - 5pm or by appointment
Textbook(s), Materials:	Required: Cellular & Molecular Immunology, 9 th Edition by Abul K. Abbas MBBS, Andrew H. H. Lichtman MD PhD, Shiv Pillai MBBS PhD
	Additional: Pdfs of additional research or review papers will be distributed.
Course Objectives (Learning Outcomes):	The class will be limited to undergraduate students who has successfully completed BIOL 4453 (Immunology), BIOL3414 (Molecular Cell) or BIOL4388(Mammalian Physiology). Students completing the course will develop an in-depth understanding of the role human immune responses in human diseases and vaccine development. Enrollment will be limited to 30 students.
Activities/Assignments:	Most classes will consist of lecture/discussions on specific subjects or case studies led by the instructor. Attendance: Required Class participation: 0 to 2 points, total of 56. Immunology Exam: 50 points Mini Quizzes: 7 quizzes, 20 points each for a total of 140 Research papers/Case studies: Outstanding 20 points, Good 14 points, Adequate 8 points- 200 possible points Final Exam: 54 points Total possible points: 500 Grading scale: A=379 and above; B < 379 to 334; C <334 to 267; D=267-223; F=below 223.
	EACH WEEK OF READING ORIGINAL RESEARCH ARTICLE OR REVIEW FOR JOURNAL CLUB STUDENTS SHOULD (1) Review background information (2) Define the questions/hypothesis (3) Key experiments and data (4) Conclusions and critique (5) Dissect discussion 3. STUDENTS Should expect a quiz <u>BEFORE CLASS BEGINS</u> . IF NOT SUBMITTED ON TIME (BLACKBOARD), THE QUIZ WILL CLOSE- THERE ARE NO MAKEUPS).
Attendance Policy:	Classes are required for all students. Absences must be communicated in writing at least 24 hours in advance. In case of an emergency, please contact

	the instructor(s) by e-mail. 20 points from your final grade will be deducted for each unexcused absence. You must be present for the PowerPoint presentations to earn ANY points for that day.
Academic Integrity Policy:	For UTEP's Policy on academic dishonesty, please refer to: https://www.utep.edu/student-affairs/osccr/index.html
Civility Statement:	Students are encouraged to actively participate in all course activities. However, during lectures, use of cell phone, talking, and other activities unrelated to the course are not acceptable.
COVID-19	<p>Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. The University is currently collaborating with the City of El Paso to offer a drive-up testing site. Free testing for students is available at the UTEP Student Health and Wellness Center. If you receive a positive COVID-19 test, please let UTEP know at covidaction@utep.edu so our COVID Action Team can follow up with you. Learn more about the city's testing site and on-campus testing for students at utep.edu/covidtesting.</p> <p>If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors.</p> <p>The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.</p>
Disability Statement:	If a student has or suspects he/she has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at <dss@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions. Website: http://studentaffairs.utep.edu/Default.aspx?alias=studentaffairs.utep.edu/dsso
Military Statement:	If you are a military student with the potential of being called to military service and /or training during the course of the semester, please contact the instructor by e-mail at the earliest convenience.

COURSE PROGRAM:

Date	Week	Book Chapter	Content	Mini Quiz (Chapter)
Jan 18	1	1	Organizational meeting Historical & General Introduction	
Jan 20		1	Chpt 1: Introduction to the Immune system	
Jan 25	2	2	Chpt 2: Innate immunity	
Jan 27			Vaccine review paper 1 "ABO blood group is involved in the quality of the specific immune response anti- SARS-CoV-2"	Read this paper at home- we will not meet today.
Feb 1	3	3	Chpt 3: Antigen capture and presentation to lymphocytes	1
Feb 3			Vaccine review paper 1 "ABO blood group is involved in the quality of the specific immune response anti- SARS-CoV-2"	
Feb 8	4	4	Chpt 4: Antigen recognition in the adaptive immune system	2
Feb 10			Vaccine Review paper 2 "Targeting memory T cell metabolism to improve immunity"	
Feb 15	5	5	Chpt 5: T cell-mediated Immunity	3
Feb 17			Vaccine Review paper 2	
Feb 22	6	6	Chpt 6: Effector mechanisms of T cell-mediated immunity	4
Feb 24			Vaccine Review paper 3 "Getting to HBV cure: the promising paths forward"	
Mar 1	7		Chpt 7: Humoral immune responses	5
Mar 3			Vaccine Review paper 3 "Getting to HBV cure: the promising paths forward"	
Mar 8	8	7	Autoimmunity Review paper	6
Mar 10			Midterm exam	

Date	Week	Paper
Mar 14-18		Spring Break
Mar 22	9	Immunology of transplant medicine
Mar 24		Immunology of transplant medicine- case study
Mar 29	10	Immunology of pregnancy
Mar 31		Immunology of pregnancy- case study
Apr 5	11	Chemokine regulation of Immunology
Apr 7		CCR7 Regulation of Immune Cell Trafficking
Apr 12	12	Vaccine for Dengue
Apr 14		Vaccine for Dengue - case study
Apr 19	13	COVID vaccine
Apr 21		COVID-vaccine- case study
Apr 26	14	Immunology of autoimmune diseases
Apr 28		Immunology of autoimmune diseases - case study
May 3	15	Preparation of final describing your hypothesis and proposed future study for one of the topics that were discussed during the semester. 2 Pages- double spaced (can contain 1-3 figure that takes up ½ page total).
May 5		
May 9-13	16	Final due May 13