

ADVANCED RESEARCH METHODS IN MOLECULAR EPIDEMIOLOGY AND PUBLIC HEALTH (BIOL 4395) – FALL 2018

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*These are hours when I am **guaranteed** to be in my office. If these times do not work for you, please send me an e-mail, and we can arrange another time to meet. I'm here to help!

COURSE DESCRIPTION

Welcome to a *study of life and your environment!* This course is intended as a capstone experience for the BIOL 1107/1108: Health Disparities research-driven sequence as well as for those students interested in advanced discussion of the fields of molecular epidemiology and public health. Course participants will have an opportunity to synthesize and evaluate key literature in the aforementioned domains and utilize the knowledge and skills acquired throughout that process to execute a small-scale, independent research project, which they will present to community stakeholders.

COURSE OBJECTIVES

This hybrid seminar course is designed to provide students with the opportunity to explore the fields of molecular epidemiology and public health. Upon completion of the course, students will be able to:

- Critically evaluate primary and secondary literature within the domain
- Apply principles of scientific inquiry to conduct a small-scale research project
- Communicate the outcomes of their research to lay and scientific audiences

COURSE MATERIALS

In preparation for in-class activities this semester, please purchase a laboratory research notebook (a *non*-spiral bound composition book will suffice) and several pens. All other materials will be provided to you by the course instructors.

ACADEMIC INTEGRITY

As members of a scholarly community dedicated to healthy intellectual development, students and faculty are expected to share the responsibility of maintaining high standards of honesty and integrity in their academic work. All material for this course must be your work and no one else's. **Cheating or plagiarism in any form will not be tolerated.** This includes, but is not limited to, copying someone else's work on an assignment or fabricating data that is included within your laboratory notebook. Please note that all suspected instances of plagiarism will be referred to the Dean of Students' Office, in accordance with UTEP policies and procedures.

The honor code also states that all members of the UTEP community are entrusted with the responsibility to uphold and promote five fundamental values: Honesty, Trust, Respect, Fairness, and Responsibility. These core elements foster an atmosphere, inside and outside of the classroom, which serves as a foundation and guides the UTEP community's academic, professional, and personal growth. Endorsement of these core elements by students, faculty, staff, administration, and trustees strengthens the integrity and value of our academic climate.

COMMUNICATIONS

When you e-mail one of us, please include a proper subject, any message you are responding to, the course name and CRN, as well as your name. Please use your UTEP account to ensure the e-mail is not blocked by the university's spam filter. If you send an e-mail directly from our Blackboard course, essential information like the course name and section will automatically be included. We will do our best to respond to your e-mail within 24-48 hours. If you do not receive a response from us within this timeframe, we ask that you please re-send your e-mail. Ensure that you regularly check the e-mail account listed for you in Blackboard, as this is where we will send all communications.

CENTER FOR ACCOMMODATIONS AND SUPPORT SERVICES

Students with disabilities who wish to request accommodations must be registered with the Center for Accommodations and Support Services (CASS) Office in Room 106 of the Union East Bldg. You may contact them at (915) 747-5148 or cass@utep.edu for more information. Once you are registered with the CASS Office, you will need to please see us as soon as possible so that we may have a private conversation to discuss accommodations, as recommended by CASS.

TECHNICAL SUPPORT

The IT Support Team can assist with Blackboard, password resets, and student e-mail accounts. Hours and other helpful information can be found at <http://www.helpdesk.utep.edu>.

COURSE GRADING & EXPECTATIONS

COURSE GRADING:

- Attendance/Participation 40%
- C.R.E.A.T.E Homework 25%
- Journal Club Facilitation 10%
- 2-minute Research Video 10%
- Research Poster 15%

A = 90 - 100%	D = 60 - 69%
B = 80 - 89%	F = <60%
C = 70 - 79%	

Please also note that the "+/-" grading system will not be used in this course as per departmental and university policies.

ATTENDANCE/PARTICIPATION

Your attendance is **required** for all sessions, unless otherwise noted. Seminar will begin promptly at **3:00pm** and will run no later than 4:20pm. Dr. Apodaca will coordinate all research activities, and guaranteed laboratory space will be available TR 4:30 - 6:30pm. If, for whatever reason, you cannot make it to class on time, please do your best to enter quietly when you do arrive. In addition to attendance, please note that your participation in all discussions, projects, and in-class activities is **required**. Failure to participate fully in each session will result in a loss of points.

BLACKBOARD

This course makes extensive use of Blackboard® (<https://adminapps.utep.edu/blackboardlearn>). You will use Blackboard to download articles, access and submit assignments, and check your grades. Please note that your login and password are the same as you would use to access your UTEP e-mail account.

C.R.E.A.T.E HOMEWORK

Critical evaluation of primary literature can be difficult when one is exposed to a new field of study. However, the ability to synthesize such literature is paramount to one's professional

development in the sciences. This semester, we will dissect literature that *you* identify using the C.R.E.A.T.E. model (S. Hoskins) in order to fully unpack those studies. The C.R.E.A.T.E. process will be modeled for you on the first day, and you will be responsible for independently applying C.R.E.A.T.E. to all articles that we discuss. These homework assignments will be due at the start of class on the day the corresponding article is presented – one for each article, as detailed in the course schedule.

JOURNAL CLUB FACILITATION

This semester, article discussions will be facilitated by *you*. Each research team will be responsible for leading no more than two discussions. Consequently, we ask that you please submit your primary research articles for review on Sept. 4th. This will provide us (your instructors) with sufficient time to ensure that those articles are appropriate given the structure of the class. When it is your team's turn to present, you should come prepared with a brief summary of the article + three discussion questions for the group. You are strongly encouraged to submit your summary and discussion questions to Dr. Olimpo prior to your presentation date(s), as he can provide comments, make copies for the class, etc.

2-MINUTE RESEARCH VIDEO

This is an opportunity for you to be creative and showcase your talents! While videos may (or may not) be used often to convey information to the scientific community, they offer an ideal platform for discussion of one's research to a lay audience. For this project, you will create a 2-minute "elevator" video that presents the rationale, research question(s), and anticipated impact(s) of your team's work. Additional details will be distributed in class on Sept. 4th.

RESEARCH POSTER

Communication and dissemination of one's work is a critical aspect of the inquiry process. At the end of the course, your team will have an opportunity to showcase your research to peers and faculty at UTEP in the form of a poster presentation. In an effort to support you in this endeavor, we will hold two workshop sessions immediately prior to the poster event. Details regarding the expectations and grading criteria for this assignment will be distributed in class on Oct. 16th.

*** Disclaimer: We reserve the right to change the contents of this syllabus due to unforeseen circumstances. Students will be given notice of relevant changes through Blackboard and e-mail. ***

WELCOME TO BIOL 4395!!! ☺

SCHEDULE

Wk.		Date	Course Topics		Assignment(s) Due
1	T	Aug. 28	Course Intro.	C.R.E.A.T.E.	-
2	T	Sept. 4	C.R.E.A.T.E.	Res. "Reboot"	Article Selection
3	T	Sept. 11	Article Discussion #1		Homework #1
4	T	Sept. 18	Article Discussion #2		Homework #2
5	T	Sept. 25	Article Discussion #3		Homework #3
6	T	Oct. 2	Article Discussion #4		Homework #4
7	T	Oct. 9	Article Discussion #5		Homework #5
8	T	Oct. 16	Research Check-In		-
9	T	Oct. 23	Article Discussion #6		Homework #6
10	T	Oct. 30	Article Discussion #7		Homework #7
11	T	Nov. 6	Article Discussion #8		Homework #8
12	T	Nov. 13	Science Communication		Research Video
13	T	Nov. 20	Poster Development Wkshp.		-
14	T	Nov. 27	Poster Development Wkshp.		-
15	T	Dec. 4	Poster Presentations		Research Poster

* Please note that the course drop date is November 2nd.