

Biology 1108 - Topics in the Study of Life
PERSIST/FYRIS Section - Drug Development and Bioassay II
CRN 27707
Spring, 2017

Dr. Marc Cox 747-5429; mbcox@utep.edu
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Office Hours: Biosciences 3.128, open door policy

Day/Time: T/Th 9:00 AM - 11:50 AM
Location: Physical Sciences Building 303

Teaching Assistant: Ashley Payan
PERSIST Postdoctoral Fellow: Adelina Holguin

Course Objectives: In the first semester (BIOL 1107) the students will have learned the concepts of basic drug development and the application of a yeast-based bioassay for drug screening. In this course the students will use their newly acquired knowledge and adapt their bioassay for use in screening environmental samples for the presence of hormone mimicking contaminants. In doing so, the students will gain a broad understanding of model systems and how they can be applied across many different settings and disciplines. As part of this course students will also gain a broad understanding of the basic principles of toxicology and environmental health.

Textbook: There is no required textbook. All reading material will be provided.

Quizzes: A total of two in-class quizzes are scheduled during the first two weeks of the semester.

Project Proposal: Each individual student will prepare a brief project proposal that includes, background, problem to be addressed, hypothesis, rationale, experimental approach, expected outcomes and potential problems prior to beginning their experimentation for the semester.

Laboratory Notebooks: Laboratory notebooks will be checked (i.e. graded) periodically. The grades will be based on legibility and detailed documentation of experimental procedures and results.

Interim Lab Report: Midway through the semester each individual student will submit an interim draft report including the study objective, experimental design, and data analysis with an interpretation of results obtained to-date. This interim report will serve as an initial draft of the final report.

Group Presentations: A number of group presentations are scheduled throughout the semester (see schedule for presentation details).

Final Report: Each individual student will build on their interim lab report throughout the semester to develop a larger final report that includes a final analysis and discussion of the data, and provides conclusions and potential future directions.

Grading: Attendance is worth 10% of your final grade. All quizzes combined are worth 5% of your final grade. The laboratory notebooks are worth 10% of your final grade. The project proposal, interim lab report and data presentations are each worth 15% of your final grade. The final report is worth 30% of your final grade. Grading scale: A=90-100%; B=80-89%; C=70-79%; D=60-69%; F is <60%.

Make-up Policy: There are no make-up quizzes except in extraordinary circumstances. If you have a serious illness, call me before the quiz is given and bring documentation of your excuse to me. If you have a legitimate excuse for being out-of-town, make arrangements with me to take the quiz before you leave.

Attendance It is your responsibility to attend class regularly. Your attendance will be monitored and graded. If you have a serious illness or a legitimate excuse (includes military personnel called to active duty or training) for being out-of-town, make arrangements with me before you leave. Please do not wear hats in class during quizzes.

Drop Policy: March 30th is the last day students may drop with an automatic "W". Census day is September 7th.

Academic Integrity Policy: UTEP's policies regarding academic integrity apply in this course. Cheating will be reported to the appropriate administrative officer. Failure to take the final exam may result in receiving an F in this course. Incompletes are only given in exceptional circumstances.

Civility Statement: Please be respectful of all students' right to learn without disruptions. In line with this statement please make an active effort to keep the talking to a minimum during lectures and presentations. Also make an active effort to either turn cell phones off or turn them to vibrate mode prior to the start of class.

Disability Statement: If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Schedule:

Date		Topic	Assignment
1/17	T	Introduction to Basic Principles of Toxicology	Homework: Read Provided Article for Thursday the 19 th
1/19	Th	Introduction to Environmental Monitoring and paper discussion	Quiz #1 Homework: Read Provided Article for Tuesday the 24 th
1/24	T	Introduction to extraction methodology and literature searching	Quiz #2 Homework: Identify supplements of interest

1/26	Th	Discuss Experimental Study Design	Homework: Prepare a brief project proposal for Tuesday the 31 st
1/31	T	Group presentations: Project Proposals	Turn in Project Proposal
2/2	Th	Open Experimentation	
2/7	T	Open Experimentation	
2/9	Th	Open Experimentation	
2/14	T	Open Experimentation	Present Laboratory Notebook for Inspection
2/16	Th	Open Experimentation	
2/21	T	Open Experimentation	
2/23	Th	Open Experimentation	
2/28	T	Open Experimentation	Present Laboratory Notebook for Inspection
3/2	Th	Open Experimentation	
3/7	T	Open Experimentation	Turn in interim lab report
3/9	Th	Group Presentations: Results, interpretation, challenges, and new directions	
3/14	T	SPRING BREAK – NO CLASS	

3/16	Th	SPRING BREAK – NO CLASS	
3/21	T	Open Experimentation	
3/23	Th	Open Experimentation	
3/28	T	Open Experimentation	
3/30	Th	Open Experimentation	Present Laboratory Notebook for Inspection
4/4	T	Open Experimentation	
4/6	Th	Open Experimentation	
4/11	T	Open Experimentation	
4/13	Th	Open Experimentation	Present Laboratory Notebook for Inspection
4/18	T	Open Experimentation	
4/20	Th	Open Experimentation	
4/25	T	Open Experimentation	
4/27	Th	Open Experimentation	Present Laboratory Notebook for Inspection
5/2	T	Presentations	

5/4	Th	Last Day	Final Reports Due
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