

THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF BIOLOGICAL SCIENCES
PLEASE CHECK FOR UPDATES ON LINE- SYLLABUS IS SUBJECT TO CHANGE

COURSE #: BIOL 4321 CRN 16736
COURSE TITLE: Developmental Biology
CREDIT HRS: 3
TERM: Fall 2019
LOCATION & TIME: T/Th 4:30 – 5:50pm UGLC 336
PREREQUISITES: BIOL1305, 3414, ZOOLOGY 2406, or BIOL 1306
COURSE INSTRUCTOR: Dr. Charlotte M. Vines
OFFICE LOCATION: Biosciences 4.124
CONTACT INFO: Phone: 915-747-8127
e-mail: cvines@utep.edu
FAX: 915-747-5808
OFFICE HOURS: Tues 2 – 3 pm (or by appointment)
TEXTBOOK Developmental Biology, Barresi and Gilbert. 12th edition.

COURSE ACTIVITIES/ASSIGNMENTS: Evaluation will be based on the average of 4 exam grades: 3 take home midterms (20% each of your final grade), one final (20% of your final grade) class participation(10% of grade) and Case studies (10% of grade).

ASSESSMENT: Students will be assessed via three term exams (each worth 20% of the grade) class participation/case studies (Each worth 10% of the grade) and a comprehensive final exam grade (20%). All exams will be submitted on Black Board and evaluated for plagiarism. Although each student must turn in their


Graduate students ONLY. Graduate students enrolled in this course will be expected to develop an R21 style specific aims and Research strategy for an application for funding. This assignment will be due on the last day of class. You will need to identify a current question in developmental biology and design a proposal that designs experiments to attempt to address that question. See <https://grants.nih.gov/grants/guide/pa-files/PA-19-053.html> and <https://grants.nih.gov/grants/how-to-apply-application-guide/forms-e/research-forms-e.pdf> for details. 70% of your grade is exams (17% each midterm and 19% for the final) , 10% is class participation, 20% is your R21.

own work, *in their own words*, students may work together to discuss answers and derive suitable ways to respond to the questions on the exam. Exams that are identified by Black Board, with greater than 50% identical words will be graded, and each student who has turned in a copy will receive a split grade (if 2 students turn in a perfect exam, their final grade will be 100/2 or 50%. If 3 students turn in a perfect exam, their final grade will be 100/3 or 33%)

COURSE DESCRIPTION: This course examines the basic molecular mechanisms that are used during the development of animals from germ cells and fertilization through various stages of embryonic development and in some animals post-embryonic development. We will look at evolutionary mechanisms that promote growth and differentiation at the molecular and organismic level. We will cover invertebrate (worm, sea urchin, fly) and vertebrate (frog, fish, chicken, mouse) animals. Students should have a basic understanding of genetics, cell molecular biology prior to taking this class.

**COURSE
SCHEDULE
(SUBJECT TO
CHANGE)**

Date	Chapter/Topic
August 27-29, 2019	Chapter 1- The Making of a Body and a Field
September 3-5, 2019	Chapter 2 – Specifying Identity
September 10-12, 2019	Chapter 3 – Differential gene expression
September 17-24, 2019	Chapter 4 – Cell to Cell Communication
September 19, 2019	Midterm Exam posted at 11:59PM
September 26, 2019	Midterm Exam # 1 Due at 6:00PM No Class today
October 1-8, 2019	Chapter 4 – Cell to Cell Communication
October 10, 2019	Case Study #1 Two heads are better than one
October 15 – 17, 2019	Chapter 5 – Stem cells
October 22 – 31, 2019	Chapter 6 – Sex determination and Gametogenesis
November 1, 2019	DROP DATE
November 5, 2019	Midterm Exam # 2 Due at 6:00PM No Class today
November 7-12, 2019	Chapter 7 - Fertilization
November 14, 2019	Case Study #2- Capacitation

November 14-19, 2019	Chapter 8-Gastrulation
November 14, 2019	Midterm Exam posted at 11:59PM
November 21, 2019	Midterm Exam # 3 Due at 6:00PM No Class today
November 26, 2019	Chapter 9 Genetics of Axis Specification in <i>Drosophila</i>
November 28, 2019	NO CLASS TODAY- HAPPY  THANKSGIVING
December 3-5, 2019	Chapter 23 – Development in Health and Disease
December 5, 2019	Chapter 24 - Development and the Environment
December 8, 2019	FINAL Exam Due at 5:00PM No work will be accepted after this date

GRADING POLICY: Letter grades for this course will be assigned as follows:
90-100% A
80-89% B
70-79% C
60-69% D
0-59% F

DROP DATE: **The drop date is November 1ST . The College of Science aligns with UTEP's posted drop date of November 1 for the Fall 2019 semester. We will not approve any student- or faculty-initiated drop requests for a course after that date, except under circumstances of complete withdrawal of ALL COURSES.**

MAKE-UP POLICY: There will be **NO MAKE UP EXAMS OR QUIZZES**. If you miss an exam the exam will receive a zero.

ATTENDANCE POLICY: 10% of your grade will be derived from in class quizzes. **UNLESS YOU ARRANGE IT WITH THE PROFESSOR, THERE ARE NO MAKE-UPS.**

ACADEMIC INTEGRITY POLICY: The UTEP academic integrity policy will be strictly enforced during exams. Any student failing to adhere to the policy will be disciplined.

CIVILITY STATEMENT: All cell phones should be turned off during class. Students with disruptive behavior will be asked to leave the class. If you are tardy and miss the quizzes there will be no makeup quiz.

DISABILITY STATEMENT: **If a student has or suspects she/he has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148,**

dss@utep.edu, cass@utep.edu or go to Room 106 Union East Building. For additional information please visit the CASS website at www.sa.utep.edu/cass. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions.

MILITARY STATEMENT:

If you are in the military, with the potential of being called up for military service and/or training during the course of the semester, you are encouraged to contact Dr. Vines as soon as possible