

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 16221
COURSE TITLE: Developmental Biology
CREDIT HRS: 3
TERM: Fall 2020
LOCATION & TIME: Online
PREREQUISITES: BIOL1305, 3414, ZOOL 2406, or BIOL 1306
COURSE INSTRUCTOR: Dr. Charlotte M. Vines
OFFICE LOCATION: Black board Collaborate
CONTACT INFO: The “Contact Dr. Vines” tab in BlackBoard is the best way to contact me.
OFFICE HOURS: BlackBoard Collaborate Tues 4:30 – 5:30 pm (or by appointment). Each week we Dr. Vines will meet with any students who would like to discuss course material.

COURSE INFORMATION
(WHO WE ARE AND WHAT WE DO)

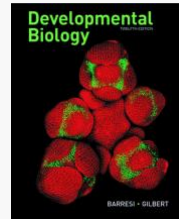
BIOL4321 is an advanced biology course for students majoring in Biological sciences. The primary goal of this course is to help students to improve their understanding of the molecular mechanisms that drive development of mammalian organisms. This course emphasizes student thinking about, writing about, interpreting and understanding molecular mechanisms that promote developmental biology.

This course examines the basic molecular mechanisms that are used during the development of animals from germ cells and fertilization thru 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.

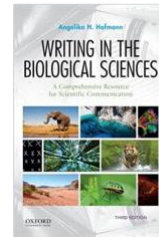
COURSE
OBJECTIVE/OUTCOMES

Upon completion of this course, students will be better prepared to discuss and write their thoughts about questions regarding development.

TEXTBOOKS: *Developmental Biology*, Barresi and Gilbert. 12th edition. ISBN: 9781605358222



Writing in the Biological Sciences/Third Edition/
Angelika Hofmann



**LEARNING MODULES/
ASSIGNMENTS**

This course consists of modules, that are packaged with all the materials which include submission areas, discussion post, and assignments within one module.

ASSESSMENT:

Evaluation will be evaluated as follows:

Assignment grades will be based on the following criteria:

10% proper use of the English Language, without mistakes/typos to write your paragraphs. There should be no typos. You should use your textbook to guide your answers on exams and case studies. If you are having problems, contact the UTEP writing center.

35% Is your answer correct? Did you write a logical and textbook supported argument for your response.

35% Do you provide sound, logical supporting evidence for your answer? What ideas from our textbook did you use to support your answer?

15% Do you have a clear conclusion for each answer or case study? Does your answer contain a conclusion that fits with your answer.


5% If you go over the word limit, I will not read past the limit for grading and you will lose 5% of the points for the question.


Grades 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) **Discussion boards** (10% of grade) and Case studies (10% of grade). All exams will be posted on and submitted through Black Board and evaluated for plagiarism. Although each student must turn

in their 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%).**

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 case studies, 20% is your R21.

**COURSE
SCHEDULE
(SUBJECT TO
CHANGE)**

| Date | Chapter/Topic |
|---------------------------|--|
| August 24-28, 2020 | Chapter 1- The Making of a Body and a Field |
| August 31-Sept 4, 2020 | Chapter 2 – Specifying Identity |
| September 7 | Labor Day- UTEP closed  |
| September 8-11, 2020 | Chapter 3 – Differential gene expression |
| September 14-18, 2020 | Chapter 4 – Cell to Cell Communication |
| September 19, 2020 | Midterm Exam posted at 11:59PM |
| September 26, 2020 | Midterm Exam # 1 Due at 6:00PM |
| Sept 28-Oct 9, 2020 | Finish Chapter 4-Cell to Cell Communication Chapter 5 – Stem cells |
| Oct 12-14, 2020 | Case Study #2 Searching for a Cure for Diabetes (Power point video and handout) |
| October 15 – 16, 2020 | Chapter 5 – Stem cells |

| | |
|---------------------------|--|
| Oct 17 – October 26, 2020 | Chapter 6 – Sex determination and Gametogenesis Case Study #3 Sex determination- 3 cases |
| October 19, 2020 | Midterm Exam2 posted 11:59PM |
| October 30, 2020 | DROP DATE |
| October 26, 2020 | Midterm Exam # 2 Due at 11:59PM |
| November 7-13, 2020 | Chapter 7 - Fertilization |
| November 14-16, 2020 | Case Studies #4a-c- Find it, Move it, Lose it, Capacitation, Legend of Sperm |
| November 17-24, 2020 | Chapter 8-Gastrulation |
| November 14, 2020 | Midterm Exam3 posted at 11:59PM |
| November 25, 2020 | Midterm Exam # 3 Due at 11:59PM |
| November 30, 2020 | Chapter 9 Genetics of Axis Specification in <i>Drosophila</i> |
| November 26, 2020 | NO CLASS TODAY- HAPPY  THANKSGIVING |
| December 1-3, 2020 | Chapter 23 – Development in Health and Disease |
| December 3-4, 2020 | Chapter 24 - Development and the Environment |
| December 8, 2020 | 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 October 30th . 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 CASE STUDIES**. If you miss an exam the exam will receive a zero.

ATTENDANCE POLICY: 10% of your grade will be derived from in case studies. **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: Students with disruptive behavior will be dropped from the class. If you are tardy to office hours or miss the case studies there will be no makeups.

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.

TECHNOLOGY REQUIREMENTS

This content for this course is delivered via the Internet through the Blackboard learning management system. Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. **Google Chrome** and **Mozilla Firefox** are the best browsers for Blackboard; **other browsers may cause complications**. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.

You will need to have access to a computer/laptop, scanner, a webcam, and a microphone to use Blackboard Collaborate. You will need to download or update the following software: Microsoft Office, Adobe Acrobat Reader, Windows Media Player, QuickTime, and Java. Check that your computer hardware and software are up-to-date and able to access all parts of the course.

If you do not have a word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook and more) for free via UTEP's Microsoft Office Portal. Click the following link for more information about [Microsoft Office 365](#) and follow the instructions.

IMPORTANT: If you encounter technical difficulties beyond your scope of troubleshooting, please contact the UTEP [Help Desk](#) as they are trained specifically in assisting with technological needs of students. **Please do not contact me for this type of assistance. The Help Desk is much better equipped than I am to assist you!**

COURSE COMMUNICATION: *How will we stay in contact with each other?*

Because this is an **online class**, we won't see each other in the ways you may be accustomed to: during class time, presentations, and office hours. However, there are a number of ways we can keep the communication channels open:

- **Office Hours:** We will not be able to meet on campus, but I will still have office hours for your questions and comments about the course. My office hours will be held on Blackboard Collaborate on Tuesdays: 4:30-5:30 p.m. Mountain Time.
- **Email: Email:** The "Contact Dr. Vines" tab in BlackBoard is the best way to contact me. I will make every attempt to respond to your e-mail within 24-48 hours of receipt. When e-mailing me, be sure to use the "Contact Dr. Vines" tab in BlackBoard. In the body of

your e-mail, clearly state your question. At the end of your e-mail, be sure to sign it with your first and last name, and your university identification number.

- **Discussion Board:** If you have a question that you believe other students may also have, please post it in the Help Board of the discussion boards inside of Blackboard. Please respond to other students' questions if you have a helpful response.
- **Announcements:** Check the Blackboard announcements frequently for any updates, deadlines, or other important messages.

NETIQUETTE

As we know, sometimes communication online can be challenging. It's possible to miscommunicate what we mean or to misunderstand what our classmates mean given the lack of body language and immediate feedback. Therefore, please keep these netiquette (network etiquette) guidelines in mind. Failure to observe them may result in disciplinary action.

- Always consider audience. This is a college-level course; therefore, all communication should reflect polite consideration of other's ideas.
- Respect and courtesy must be provided to classmates and to the instructor at all times. No harassment, profanity or inappropriate postings will be tolerated.
- When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably state in a face-to-face situation.
- Blackboard is not a public internet venue; **all postings to it should be considered private and confidential**. Whatever is posted on in these online spaces is intended for classmates and Dr. Vines only. You are forbidden to copy documents and paste them to a publicly accessible website, blog, or other space.

COURSE POLICIES: What you need to do to be successful in the course.

ATTENDANCE AND PARTICIPATION

Attendance in the course is determined by participation in the discussion boards and case studies. Your participation in the course is important not only for your learning and success but also to create a community of learners. Participation is determined by completion of the following activities:

- **Reading/Viewing** all course materials to ensure understanding of assignment requirements
- **Participating in engaging discussions** with your peers on the discussion boards (grading rubric provided in the "grading information" area of each forum)
- Other activities as indicated in the weekly modules

Because these activities are designed to contribute to your learning each week, they cannot be made up after their due date has passed.

EXCUSED ABSENCES AND/OR COURSE DROP POLICY

According to UTEP Curriculum and Classroom Policies, “When, in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, **the instructor may drop the student from the class with a grade of “W” before the course drop deadline and with a grade of “F” after the course drop deadline.**” See academic regulations in the UTEP Undergraduate Catalog for a list of excuse absences. Therefore, if I find that, due to non-performance in the course, you are at risk of failing, I will drop you from the course. I will provide 24 hours advance notice via email.

OR

I will not drop you from the course. However, if you feel that you are unable to complete the course successfully, please let me know and then contact the [Registrar’s Office](#) to initiate the drop process. If you do not, you are at risk of receiving an “F” for the course.

BLACKBOARD COLLABORATE SESSIONS

This class provides an opportunity for you to participate in scheduled Blackboard Collaborate sessions. The purpose of these sessions is for you to view live demonstrations of the course material and/or to participate in discussion groups with your classmates. These sessions will be held on Tuesdays 1:30-2:30.

DEADLINES, LATE WORK, AND ABSENCE POLICY

Midterm Exams:

- Midterm Exams will be due on September 26th, October 26th, and November 25th at midnight (11:59 PM). **No late work will be accepted if the reason is not considered excusable.**

Discussion Assignments

- All discussion board assignments and case studies will be due on Sundays at midnight (11:59 PM). **No late work will be accepted if the reason is not considered excusable.**

MAKE-UP WORK

Make-up work will be given *only* in the case of a *documented* emergency. Note that make-up work may be in a different format than the original work, may require more intensive preparation, and may be graded with penalty points. If you miss an assignment and the reason is not considered excusable, you will receive a zero. It is therefore important to reach out to me—in advance if at all possible—and explain with proper documentation why you missed a given course requirement. Once a deadline has been established for make-up work, no further extensions or exceptions will be granted.

ALTERNATIVE MEANS OF SUBMITTING WORK IN CASE OF TECHNICAL ISSUES

You should always submit your work with plenty of time to spare in the event that you have a technical issue with the course website, network, and/or your computer. You should save all

your work (answers to discussion points, quizzes, exams, and essays) in a separate Word document as a back-up. This way, you will have evidence that you completed the work and will not lose credit. If you are experiencing difficulties submitting your work through the course website, please contact the UTEP Help Desk. You can email me your back-up document as a last resort.

INCOMPLETE GRADE POLICY

Incomplete grades may be requested only in exceptional circumstances after you have completed at least half of the course requirements. Talk to me immediately if you believe an incomplete is warranted. If granted, we will establish a contract of work to be completed with deadlines.

ACCOMMODATIONS POLICY

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the [UTEP Center for Accommodations and Support Services](#) (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, or email them at cass@utep.edu, or apply for accommodations online via the [CASS portal](#).

COVID-19 Accommodations

Students are not permitted on campus when they have a positive COVID-19 test, exposure or symptoms. If you are not permitted on campus, you should contact me as soon as possible so we can arrange necessary and appropriate accommodations.

SCHOLASTIC INTEGRITY

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the [Office of Student Conduct and Conflict Resolution \(OSCCR\)](#) for possible disciplinary action. To learn more, please visit [HOOP: Student Conduct and Discipline](#).

CLASS RECORDINGS

The use of recordings will enable you to have access to course videos, class group discussions. Our use of such technology is governed by the Federal Educational Rights and Privacy Act

(FERPA) and UTEP's acceptable-use policy. All recordings will be kept and stored by UTEP, in accordance with FERPA and UTEP policies. Your instructor will not share the recordings of your class activities outside of course participants, which include your fellow students, teaching assistants, or graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a Blackboard Collaborate sessions. **You may not share recordings outside of this course.** Doing so may result in disciplinary action.

PLAGIARISM DETECTING SOFTWARE

Your course work and assessments will be submitted to SafeAssign, a plagiarism detecting software. SafeAssign is used review assignment submissions for originality and will help you learn how to properly attribute sources rather than paraphrase.

COPYRIGHT STATEMENT FOR COURSE MATERIALS

All materials used in this course are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. They may not be further disseminated.

COVID-19 PRECAUTIONS

You must STAY AT HOME and REPORT if you (1) have been diagnosed with COVID-19, (2) are experiencing COVID-19 symptoms, or (3) have had recent contact with a person who has received a positive coronavirus test. Reports should be made at screening.utep.edu. If you know of anyone who should report any of these three criteria, you should encourage them to report. If the individual cannot report, you can report on their behalf by sending an email to COVIDaction@utep.edu.

For each day that you attend campus—for any reason—you must complete the questions on the UTEP screening website (screening.utep.edu) prior to arriving on campus. The website will verify if you are permitted to come to campus. Under no circumstances should anyone come to class when feeling ill or exhibiting any of the known COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, and alternative instruction will be provided. Students are advised to minimize the number of encounters with others to avoid infection.

Wear face coverings when in common areas of campus or when others are present. You must wear a face covering over your nose and mouth at all times in this class. If you choose not to wear a face covering, you may not enter the classroom. If you remove your face covering, you will be asked to put it on or leave the classroom. Students who refuse to wear a face covering and follow preventive COVID-19 guidelines will be dismissed from the class and will be subject to disciplinary action according to Section 1.2.3 *Health and Safety* and Section 1.2.2.5 *Disruptions* in the UTEP Handbook of Operating Procedures.

COURSE RESOURECES: Where can you go for assistance?

UTEP provides a variety of student services and support:

Technology Resources

- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

Academic Resources

- [UTEP Library](#): Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- [RefWorks](#): A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.

Individual Resources

- [Military Student Success Center](#): Assists personnel in any branch of service to reach their educational goals.
- [Center for Accommodations and Support Services](#): Assists students with ADA-related accommodations for coursework, housing, and internships.
- [Counseling and Psychological Services](#): Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.