

BIOLOGY 2440

INTRODUCTORY CELL BIOLOGY

4 CREDIT HOURS
SPRING 2017

Lecture Section 01 | 11:00 am-12:20 pm | TR | LDB 214 CRN 20545

Lab Section 02 | Tuesday | 2:00-3:50 pm | LDB 207 | CRN 21405
Lab Section 03 | Tuesday | 4:00-5:50 pm | LDB 207 | CRN 21416
Lab Section 04 | Wednesday | 12:00-1:50 pm | LDB 215 | CRN 21422
Lab Section 05 | Wednesday | 2:00-3:50 pm | LDB 207 | CRN 21429
Lab Section 10 | Wednesday | 4:00-5:50 pm | LDB 220 | CRN 23916

Lecture Course Instructor:

Anna Blice-Baum, Ph.D.
Department of Biological Sciences
Office: LDB 146,
Phone: (936) 294-2294
E-mail: acb070@shsu.edu
Office Hours: Tuesday and Thursday, 10:00 – 10:50 AM, Wednesday 10:00 – 11:50 AM, or by appointment. Please e-mail me if you will be coming to my office hours or if you need to make an appointment.

Supplemental Instruction Leader:

Monica Anderson
E-mail: mma022@shsu.edu

Lab Instructors:

Lauren Riggs	Teaching Assistant	lar052@SHSU.EDU
	Lab sections 02 and 03	
Rebecca Vaughn	Teaching Assistant	rav012@SHSU.EDU
	Lab section 04	
Nicholas Holovacs	Teaching Assistant	nth006@SHSU.EDU
	Lab section 05	
Greyson Fitts	Teaching Assistant	cgf008@SHSU.EDU
	Lab section 10	

Course Description:

Cell biology is a general cellular approach to biological principles, including scientific methods, origins of life, biochemistry, cellular structure, metabolism, cellular evolution, and cell division.

Prerequisites:

A grade of “C” or better in BIOL 1411, BIOL 1413, and CHEM 1411

Required Course Materials:

Essential Cell Biology by B Alberts, D Bray, K Hopkin, A Johnson, J Lewis, M Raff, K Roberts, and P Walter. (4th Edition, 2014) Garland Science.

Scantron forms: Scantron 882-E (one for each exam)

Packback subscription (see below for details)

Lecture:

Most lecture material will come from the textbook listed above as well as relevant material from the literature. Figures and data tables from the textbook will be presented during lectures, and certain concepts will be emphasized and/or clarified through the use of animations and live cell recordings. Problem sets will be assigned at the conclusion of each chapter to further emphasize key concepts. Mini quizzes will be given at the beginning of each week to test your comprehension of the previous week's material. Incomplete note slides, lists of figures, and links to animations not available from the textbook publisher will be posted regularly on BlackBoard. Laboratory sessions will consist of problem sets, critical thinking activities, and experiments designed to expand on lecture materials.

Packback:

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online curiosity community where you can be fearlessly curious and ask BIG questions about how what we are studying relates to life and the real world.

- Your participation on Packback will count towards 8.3% of your final grade.
- In order to receive your points per week, you must post 1 Question and 2 Answers per week **relevant to our class subject matter** per week.
- Before you start posting, be sure to read the [Community Guidelines](#) found in the tutorial on Packback. If your post doesn't follow the Packback Community Guidelines, there is a chance it will be removed and you won't receive points for that post.
- There will be a **Sunday 11:59 PM deadline** for submissions in your community each week.
- Each week, we will spend some time in class highlighting discussions from Packback, encouraging feedback and recognizing top students!

To start posting on Packback Questions:

1. Navigate to <https://Packback.co/questions> and click "Register as a new student".
Note: If you already have an account on Packback you can login with your credentials.
2. Make sure to register with your SCHOOL email address and real first name and last name.
3. Enter our class community's access code into the "Join a new Community" module on your dashboard.
Our Community access code: **687FDCC1-38E4-8B36-B5C4-ADDE7F4E96E2**
4. Follow the instructions on your screen to finish your registration.

For a brief introduction to Packback Questions and why we are using it in class, watch this video: vimeo.com/packback/Welcome-to-Packback-Questions

Course Objectives:

- Acquire a factual knowledge-base of Cell Biology terms and methods
- Learn fundamental principles and theories of Cell Biology

Attendance Policy:

Regular and punctual attendance is EXPECTED for lecture. Exams will consist of material covered in lectures and class discussion. If you miss class, promptly obtain lecture notes from a trusted classmate. Regular and punctual attendance is MANDATORY for laboratory sessions.

Performance Evaluation:

Lecture Exams	3 X 100 points each	300 pts
Laboratory		100 pts
In-class quizzes/assignments	5 X 10 points each	50 pts
Packback participation		50 pts
Final Exam		100 pts
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Total		600 pts

- Extra credit will only be made available at the instructor's discretion. Any extra credit offered will enhance the Cell Biology learning experience and will be offered by the goodness of the instructor's heart.

Your laboratory grade will be determined using the following formula:

$$\frac{\left[\frac{\text{Lab Assignment Points Earned}}{\text{Lab Assignment Points Possible}} + \frac{\text{Participation Points Earned}}{\text{Participation Points Possible}} \right]}{2} \times 100$$

You will have an opportunity to earn participation points for each lab session. Participation points earned for each session will be determined using the following formula:

$$\frac{(\text{Average group member participation score} + \text{TA participation score})}{2}$$

- Lab assignments must be turned in by the due date in class. Late or e-mailed assignments will not be accepted. **There are NO make-up labs.**

Grade breakdown: Course grades will be determined by the percentage of total points the student has earned according to the following scale:

A =	90 – 100 % (540 – 600 pts)	D =	60 – 70 % (360 – 419 pts)
B =	80 – 90 % (480 – 539 pts)	F =	< 60 % (< 360 pts)
C =	70 – 80 % (420 – 479 pts)		

Make-up exams:

Students are required to take exams at the scheduled times. Make-up exams will be allowed only in the event of extreme illness, severe weather conditions, family emergency, or participation in a University-sponsored event, sports or otherwise. Students must notify the instructor at least 24 hours before a missed exam or within 24 hours of the missed exam to arrange a make-up exam and provide documented reasoning for the absence.

All assignment and exam scores will be posted on BlackBoard as soon as the scores are available. Students may check progress in the course at any time through the BlackBoard website.

Exam Policy:

Although grades will be posted as soon as exams have been graded, exams will not be returned to students. Exams will be available for review in the instructor's office until the subsequent exam has been administered.

If a student believes that an exam or assignment has been graded in error, or that a score has been posted incorrectly, the student should contact the instructor within **one week** of the posted grade to determine if an error has been made. All decisions regarding a score change will be made by the instructor and are final.

Academic Integrity:

The University expects students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other submitted academic work, plagiarism, collusion, and the abuse of resource materials.

Students should refer to policy 810213 in the student section of the Academic Policy Manual for examples of academic dishonesty.

If the instructor determines that a student has been academically dishonest, the instructor may impose a grade of "F" for the assignment/examination or impose a grade of "F" for the course. If the student involved does not accept the decision of the instructor, the student may appeal the decision to the Chair of the Department of Biological Sciences. If the student does not accept the decision of the Department Chair, the student may appeal the decision to the Dean of the School of Arts and Sciences.

Classroom Conduct:

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the University. Cell phones must be silenced or turned off before the start of class. Text-messaging and playing Pokemon Go is not permitted during class. Talking while the

instructor is lecturing is not permitted and is rude. Students who are disruptive will be asked to leave class and may be reported to the Dean of Students for disciplinary action in accordance with University policy.

Student Absences of Religious Holy Days Policy:

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Section 51.911 (a) (2) defines a religious holy day as: “a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20...” A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed. For a complete listing of the university policy, see: http://www.shsu.edu/~vaf_www/aps/documents/861001.pdf

Students with Disabilities Policy:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see: <http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf>
<http://www.shsu.edu/syllabus/>

Visitors in the Classroom:

Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Please inform me prior to a visitor in the classroom due to space restrictions. Students wishing to audit a class must apply to do so through the Registrar's Office.

Tentative Lecture Schedule

Week	Date	Topic	End-of-chapter questions
1	1/19	Introduction to Cell Biology, Ch. 1, and this course; Initial Assessment	Ch 1: 8, 9, 11-14, 16, 17, 20, 21
2	1/24 1/26	Chapter 1: Cells Chapter 2: Chemical components of cells	
3	1/31 2/2	Chapter 3: Energy, Catalysis, and Biosynthesis	Ch 2: 10-12, 14, 15, 17-20
4	2/7 2/9	Chapter 4: Protein Structure and Function	Ch 3: 10, 12, 15-20, 23
5	2/14 2/16	Exam 1: Ch 1 – most of 4 Chapter 5: DNA and Chromosomes	Ch 4: 9-11, 13-16, 18, 20, 22
6	2/21 2/23	Chapter 6: DNA Replication, Repair, and recombination and Viruses (Ch. 9 pg 307-310)	Ch 5: 5-8, 11-13, 15, 16
7	2/28 3/2	Chapter 7: From DNA to protein	Ch 6: 6-9, 12-16
8	3/7 3/9	Chapter 8: Control of gene expression Exam 2: Ch. 5 – 8 and viruses	Ch 7: 7-10, 12-14, 16, 17
	3/14 3/16	Spring Break No classes	Ch 8: 5, 6, 8-13
9	3/21 3/23	Chapter 11: Membrane Structure *** Extra credit opportunity 3/23: Dr. Blythe Shepard speaking in seminar, 4:00 pm in 214	Ch 11: 7-11, 13, 14, 16-19
10	3/28 3/30	Chapter 12: Transport Across Cell membranes	Ch 12: 9-12, 14, 16-19, 21, 22
11	4/4 4/6	Chapter 13: Metabolism	Ch 13: 8, 10, 11, 13-16
12	4/11 4/13	Chapter 14: Energy Generation in Mitochondria and chloroplasts	Ch 14: 11-14, 16, 18, 20-23
13	4/18 4/20	Exam 3: Ch 11 – 14	Ch 18: 11, 12, 14, 17, 20, 22-26, 30
14	4/25 4/27	Chapter 18: Cell division Chapter 19: Sex and genetics	Ch 19: 7, 8, 10-13, 16, 18, 19
15	5/2 5/4	Final Assessment	
16	Finals Week	Final Exam Thursday, May 11, 2017; 12:00 – 2:00 PM	

Syllabus Agreement

Once you have read the syllabus, please fill this page out, separate it from the rest of the syllabus, and return it to me at the beginning of the second class period (**January 24, 2017, 11:00 am**).

NAME:

WHAT WAS THE BEST PART OF YOUR WINTER BREAK?

WHAT ARE YOUR FUTURE GOALS (career and personal)?

WHAT ARE YOU MOST INTERESTED IN LEARNING ABOUT THIS SEMESTER IN CELL BIOLOGY?

I have read and understand the class syllabus and agree to fulfill all my responsibilities as a student. I agree that any materials I generate for this class can be used by SHSU for purposes related to education and assessment.

Sign: _____ Date: _____