

PLB 115 – GENERAL BIOLOGY
Spring Semester 2016, PLB Sections 1-11

Lectures: Tuesday and Thursday from 1:00 – 1:50 p.m., Lawson 141
Instructor: Dr. Karla Gage
Instructor Office: Public Policy Institute, Rm 108 **Phone:** 453-7679 **E-mail:** kgage@siu.edu
Office Hours: MWF 10-12 open office hours or by appointment
Lab Manager: Rachel Shurtz **Office:** LS II, Rm 323 **Phone:** 453-4174 **E-mail:** rshurtz@siu.edu
Teaching assistants (TA): Josh Abel (115-06; 115-07) **E-mail:** abel@siu.edu
Sarah Black (115-01; 115-05; 115-11) **E-mail:** sarah.black@siu.edu
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TA office: LS II, Rm 420 **Phone:** 536-2331

Textbooks: **Required:** Enger and Ross, Concepts in Biology, 14th ed.
Recommended: Enger and Ross, Student Study Guide for use with Concepts in Biology
Lab Manual: **Required:** Crandall-Stotler and Jacobson, BIOS, Process and Diversity, 5th ed.
Course website: <https://online.siu.edu>
Text Website: http://highered.mheducation.com/sites/0073403466/information_center_view0/index.html

This course makes heavy use of D2L & Internet resources. Access them quickly and use them often!

COURSE OBJECTIVES:

Life in the 21st century will become increasingly dependent upon science and technology, with advances in biology and medicine impacting all of our lives. As part of the University Core Curriculum, this course likely represents the only contact to biological science that most of you will have at SIUC. The course is designed to provide students with a basic introduction to biology in the context of **five** learning objectives. The goal is to improve the functional scientific literacy of students so they can make informed choices in their lives when confronted with choices involving biological questions.

1. Demonstrate how the scientific method is applied to the study of living organisms
2. Provide a basic vocabulary so that the student can read and converse intelligently about biological issues
3. Describe the basics of the major unifying life processes so that the student can understand how living organisms (including humans) function
4. Build an understanding of the unique role of humans in the biosphere
5. Introduce the student to biodiversity and instill an appreciation for the impact of biotechnology on future lifestyles and decisions

READING ASSIGNMENTS AND ATTENDANCE:

Reading assignments are indicated on the course syllabus for each learning module and should ideally be completed before or soon after the indicated lectures. Completing the reading assignments and associate learning materials on the D2L site are **critical** to your success in this course. Attendance at all lectures is **strongly recommended** for the best possible performance in this course.

GRADING:

Lecture:	3 lecture exams at 100 pts each (top 2 scores)	200 points	450 – 500 points	= A
	Final exam (cannot be dropped, part comprehensive)	150 points	400 – 449 points	= B
Laboratory:	Quizzes during the semester (top 10 scores)	150 points	350 – 399 points	= C
			300 – 349 points	= D
	COURSE TOTAL POINTS	500 points	299 points or less	= F

The first Lecture Exam that is missed will be considered the exam you drop. Additional missed exams will be graded as a ZERO. To request a makeup, students must submit a request and documenting materials to the course instructor at least 7 days prior to the date of the exam for review. Approval of the request is at the instructor's discretion and will adhere to all university rules regarding absences.

There is NO CURVING in this course.

The final exam is THURSDAY, May 12, AT 12:30PM. The final CANNOT be taken early, plan accordingly.

This course adheres to all rules and policies indicated in the SIUC Undergraduate Catalog, student handbook, and all other pertinent materials.

Week	Date	Learning Module	Text Chapter	Lab topic
1	Jan 19	Module 1: Why study biology?	1	Assessment
	Jan 21	Module 2: Cells, The basic unit of life	4	
2	Jan 26	Module 2: Cells, The basic unit of life	4	1
	Jan 28	Module 3: Macromolecules, the building blocks of life	3	
3	Feb 2	Module 3: Macromolecules, the building blocks of life	3	2
	Feb 4	Module 4: Enzymes and biochemical pathways	5	
4	Feb 9	Module 5: Aerobic respiration, using sugars for energy	6	3
	Feb 11	Module 5: Aerobic respiration, using sugars for energy	6	
5	Feb 16	Lecture Exam #1		4
	Feb 18	Module 7: DNA and RNA, The code of life	8	
6	Feb 23	Module 7: DNA and RNA, The code of life	8	5
	Feb 25	Module 8: Mitosis and cellular reproduction	9	
7	Mar 1	Module 8: Mitosis and cellular reproduction	9	6
	Mar 3	Module 9: Meiosis, Sex cell production	9	
8	Mar 8	Module 9: Meiosis, Sex cell production	9	7
	Mar 10	Lecture Exam #2		
9	Mar 15	Spring break		
	Mar 17	Spring break		
10	Mar 22	Module 10: Genetics, Patterns of inheritance	10	8
	Mar 24	Module 11: Biotechnology, Terms and concepts	11	
11	Mar 29	Module 11: Biotechnology, Pros and cons	11	9
	Mar 31	Module 12: Diversity within species	12,16	
12	Apr 5	Module 13: Concepts in evolution, Natural selection	13	10
	Apr 7	Module 13: Concepts in evolution, Natural selection	13	
13	Apr 12	Lecture exam #3		11
	Apr 14	Module 14: Concepts in evolution, Speciation	14	
14	Apr 19	Module 14: Concepts in evolution, Speciation	14	12
	Apr 21	Module 15: Ecosystem organization	15	
15	Apr 26	Module 16: Community Interactions	16	13
	Apr 28	Module 16: Community Interactions	16	
16	May 3	Module 17: Population Ecology	17	14
	May 5	Module 17: Population Ecology	17	
	May 12	Final Exam (12:30PM – 2:30PM)		

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Study resources:

1. There is a review guide on D2L that clearly explains what material from each chapter will be covered. This gives you a preview of the central concepts that will be covered in the lectures and on the exams. Information on preparing for the comprehensive final is also included.
2. D2L has practice quizzes for every chapter of the textbook covered. These quizzes do not count toward your grade and are repeatable as many times as you wish to take them.
3. D2L also has links to the textbook's website. Additional study resources can be found there.
4. An optional study guide can be purchased for the textbook. This has different content than the textbook's website and students have found this to be helpful.
5. The instructor and TA's all have open office hours, which means you can see any of them for assistance studying and for exam preparation.

Emergency Procedures

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT's website at www.bert.siu.edu, Department of Safety's website www.dps.siu.edu (disaster drop down) and in Emergency Response Guideline pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.

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IMPORTANT DATES *

Semester Class Begins.....	01/19/2016
Last day to add a class (without instructor permission):.....	01/24/2016
Last day to withdraw completely and receive a 100% refund:	01/31/2016
Last day to drop a course using SalukiNet:.....	04/03/2016
Last day to file diploma application (for name to appear in Commencement program):	02/12/2016
Final examinations:	05/09–05/13/2016

Note: For outreach, internet, and short course drop/add dates, visit Registrar's Academic webpage <http://registrar.siu.edu/>

SPRING SEMESTER HOLIDAYS

Martin Luther King, Jr.'s Birthday Holiday 01/18/2016

Spring Break 03/12—03/20/2016

WITHDRAWAL POLICY ~ Undergraduate only

Students who officially register for a session may not withdraw merely by the stopping of attendance. An official withdrawal form needs to be initiated by the student and processed by the University. For the proper procedures to follow when dropping courses and when withdrawing from the University, please visit <http://registrar.siu.edu/catalog/undergraduatecatalog.html>

INCOMPLETE POLICY~ Undergraduate only

An INC is assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. An INC must be changed to a completed grade within one semester following the term in which the course was taken, or *graduation*, whichever occurs first. Should the student fail to complete the course within the time period designated, that is, by no later than the end of the semester following the term in which the course was taken, or graduation, whichever occurs first, the incomplete will be converted to a grade of F and the grade will be computed in the student's grade point average. For more information please visit:

<http://registrar.siu.edu/grades/incomplete.html>

REPEAT POLICY

An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit no more than two times (two total enrollments) unless otherwise noted in the course description. For students receiving a letter grade of A,B,C,D, or F, the course repetition must occur at Southern Illinois University Carbondale. Only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. See full policy at

<http://registrar.siu.edu/catalog/undergraduatecatalog.html>

GRADUATE POLICIES

Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please visit

<http://gradschool.siu.edu/about-us/grad-catalog/index.html>

DISABILITY POLICY

Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must come to the DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements.

<http://disabilityservices.siu.edu/>

PLAGIARISM

Student Conduct Code http://srr.siu.edu/student_conduct_code/

Guidelines for Faculty <http://pvcaa.siu.edu/common/documents/Plagiarism/Guide%20to%20Preventing%20Plagiarism.pdf>

MORRIS LIBRARY HOURS

<http://www.lib.siu.edu/about>

SAFETY AWARENESS FACTS AND EDUCATION

Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: <http://safe.siu.edu>

SALUKI CARES

The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For information on Saluki Cares: (618) 453-5714, or siucares@siu.edu,

<http://salukicare.siu.edu/index.html>

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INCLUSIVE EXCELLENCE

SIU contains people from all walks of life, from many different cultures and sub-cultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ is an important part of education as well as an essential preparation for any career. For more information please visit: <http://www.inclusiveexcellence.siu.edu/>

LEARNING AND SUPPORT SERVICES

Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:

Tutoring : <http://tutoring.siu.edu/>

Math Labs <http://math.siu.edu/courses/course-help.php>

WRITING CENTER

The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit <http://write.siu.edu/>

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY

Our office's main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit:

<http://diversity.siu.edu/#>

Additional Resources Available:

SALUKINET: <https://salukinet.siu.edu/cp/home/displaylogin>

ADVISEMENT: <http://advisement.siu.edu/>

PROVOST & VICE CHANCELLOR: <http://pvcaa.siu.edu/>

SIU ONLINE: <http://online.siu.edu/>