

**BSC 114-001, Introductory Biology for Majors**  
Course Syllabus, Spring 2004

**Class:** M, W, and F 8:00-8:50 AM, Room 127 Biology  
**Instructor:** Dr. Kim Caldwell  
**Office Hours:** 8:50-9:30AM Monday, Wednesday, and Friday, or by appointment.  
**Office Location:** Room 120A.  
**Email:** kcaldwel@bama.ua.edu  
**Web Page:** <http://webct.ua.edu/>  
**Textbook:** Biology, 6<sup>th</sup> edition, by Campbell and Reese  
**Prerequisites:** none

**Course Description:** BSC 114 is designed as an introduction to biology at the college-freshman level. It is worth 3 credit hours. Topics covered include the basic principles and terminology of cell chemistry, cell biology, genetics, and evolution.

**Objectives:** To gain a comprehensive understanding of cell biological processes at the introductory level that will provide a foundation for future coursework in the biological sciences.

**Note taking:** My notes are posted on the internet via webCT. Download the notes using Web-CT before lecture and use them as a guide during class. All students enrolled in this class have a Web-CT account that can be accessed at : <http://webct.ua.edu/>

- Your **login** Username is your BAMA I.D.
- Your **password** is the last 4 digits of your social security number (or whatever you may have already changed it to if you already use Web-CT in other courses). You can change your password through Web-CT.

If you have problems using Web-CT *do not ask me first*, try calling the Seebeck Computer center HelpDesk (348-2435) before contacting me.

**Hour Exams:** Three one-hour exams will be given during the regularly scheduled lecture periods. Questions will be multiple choice (50 questions/exam). Exams will cover text and lecture material. Exam questions **will include** material from class discussions. NOTE: Cell phones are not permitted during class and should not be on during class. If your cell phone goes off during an exam, you will be asked to turn in your exam immediately and will not be allowed to make it up. If you arrive late for an exam and anyone else has finished and left, than you will not be allowed to take that exam and will be required to take a makeup, as listed below.

**Final Exam:** Thursday, May 6, 7:00-9:30 PM. The final will cover material presented after the third hour exam. Because of the nature of the course, some questions on the final may be considered cumulative.

**Tentative Review Sessions:** There will be a single one-hour review session a few days before each exam as specified on the syllabus (in room 127 Biology). The format will consist of question/answer sessions.

**Make-up Lecture Exams:** All make-up exams will be given on Friday, April 23, at 4 PM (location TBA) and will be completely fill in the blank. These exams will only be given to those with a documented legitimate excuse (e.g., doctor's note). Unexcused absences will result in a zero for that exam. *The student is responsible for contacting the instructor within 5 school days of the original exam to schedule the make-up exam and to provide the legitimate excuse*; if the instructor has not been contacted, you will receive a zero.

**Grading:** 4 exams (at 100 points a piece), for a total possible of 400 points (100%). There is no extra credit offered.

A+ = 99-100	B+ = 88-89.9	C+ = 78-79.9	D+ = 68-69.9	F < 60
A = 92-98.9	B = 82-87.9	C = 72-77.9	D = 62-67.9	
A- = 90-91.1	B- = 80-81.9	C- = 70-71.9	D- = 60-61.9	

**Class Attendance:** Class attendance is **required**!!! There are several important reasons to attend every class including: I will test you on material from lecture that is **NOT** in your textbook, and studies show that students remember, understand class material, and perform better on exams when present in lecture.

**Posting of Grades:** Grades will not be posted. I will **NOT** give grades out by e-mail, over the phone, or to a friend. To receive your grade, you must log onto the following website and, using your student ID number, retrieve your grade <https://www.ssc.ua.edu/authenticate/>. Your grades will most likely be available within about 10 hours of taking the exam. If you have trouble accessing your grade see me during office hours.

**Students with Disabilities** Students with disabilities are encouraged to register with the Office of Disability Services (348-4285). Thereafter, please schedule an appointment with Dr. Caldwell to discuss accommodations.

**Academic Misconduct** All acts of dishonesty in any work constitutes academic misconduct. This includes, but is not limited to, cheating, plagiarism, fabrication of information, misrepresentations, and abetting in any of the above. The Academic Misconduct Disciplinary Policy will be followed in the event that academic misconduct occurs. Students should refer to the Student Affairs Handbook, which can be obtained in the Office of Student Life and Services in the Ferguson Center.

**Use of Cellular Phones:** The use of cellular phones or other electronic devices during class is rude and disruptive and will not be tolerated. Repeated offenses of this kind will result in reprimand and may lead to additional written assignments at the discretion of the instructor.

**BSC 115:** This course is a separate laboratory course that is worth 1 credit hour and is graded independently from the course. Lab exercises will compliment lecture material, occasionally in greater detail than the lecture. Additionally, there will be some topics covered in lab that will not be discussed in lecture. Information regarding policies for the lab will be handled during your first day of lab.

### Course Outline

*(this is tentative and subject to change)*

Date	Topic	Text Chapter		
Jan	7	Introduction to course	1	
	9	atoms and molecules	2	
	12	atoms and molecules	2	
	14	water	3	
	16	carbon	4	
	19	<i>MLK Day – no class</i>		
	21	organic molecules	5	
	23	organic molecules	5	
	26	organic molecules	5	
	28	cell structure	7	
	30	cell structure	7	
	Feb	2	cell structure	7
		2	<i>review (7-8 PM)</i>	
		4	<b>Exam I</b>	
6		membrane structure	8	
9		membrane structure	8	
11		metabolism	6	
13		cellular respiration	9	
16		cellular respiration	9	
18		cellular respiration	9	
20		photosynthesis	10	
23		photosynthesis	10	
25		cell communication	11	
26		<i>review (7-8 PM)</i>		
27		cell communication	11	
Mar	1	<b>Exam 2</b>		
	3	mitotic cell cycle	12	
	5	mitotic cell cycle	12	
	8	meiosis	13	
	10	meiosis	13	
	12	Mendelian genetics	14	
	15	Mendelian genetics	14	
	17	Chromosomes	15	
	19	Chromosomes	15	
	22	DNA replication	16	
	24	DNA replication	16	
	24	<i>review (7-8 PM)</i>		
	26	<b>Exam 3</b>		
	29	<i>Spring break</i>		
31	<i>Spring break</i>			

Apr	2	<i>Spring break</i>	
	5	transcription and translation	17
	7	transcription and translation	17
	9	transcription and translation	17
	12	genetics of viruses and bacteria	18
	14	genetics of viruses and bacteria	18
	16	gene regulation	19
	19	gene regulation	19
	21	gene technology	20
	23	gene technology	20
	26	genetics and development	21
	28	evolution	22
	29	<i>review (7-8 PM)</i>	
	30	evolution	22
May	6	<b>Exam 4 – Final Exam</b>	

# BSC 115 LABORATORY GENERAL BIOLOGY I

Dr. Jane Rasco, Laboratory Director  
Room 236  
Phone: 348-1802  
E-Mail: [Jrasco@Biology.as.ua.edu](mailto:Jrasco@Biology.as.ua.edu)

<b><u>DATE</u></b>	<b><u>LAB #</u></b>	<b><u>TOPIC</u></b>
Jan. 13-15	Lab 1	Scientific Investigation
Jan. 20-22	Lab 3, Handout	Microscopes; Macromolecules
Jan. 27-29	Lab 3,7	Cell, Mitosis
Feb. 3-5	Lab 7	Meiosis
<b>Feb. 10-12</b>		<b>TEST I</b>
Feb. 17-19	Lab 4	Diffusion and Osmosis
Feb. 24-26	Lab 2	Enzymes
March 2-4	Lab 6	Photosynthesis
March 9-11	Lab 8	Mendelian Genetics
<b>March 16-18</b>		<b>TEST II</b>
March 23-25	Lab 9	Mendelian Genetics: Drosophila
<b>March 29-April 2</b>		<b>NO CLASSES: SPRING BREAK</b>
April 6-8	Lab 13	Bacteriology
April 13-15	Handout	Colony Transformation
April 20-22	Handout	DNA Paternity Simulation
<b>April 27-29</b>		<b>TEST III</b>

**NO EATING, DRINKING OR SMOKING IN THE LABORATORY**

# **BSC 115**

## **LABORATORY POLICIES**

### **OBJECTIVE OF THIS COURSE**

In this laboratory course, you will be involved in hands-on investigative experiments designed to help you understand the basic principles of biology. The exercises should help you to become a careful observer and to practice logical thinking in solving problems and analyzing new situations.

### **PREREQUISITES FOR THIS COURSE**

BSC 115 laboratory requires a prerequisite or corequisite of BSC 114. It is designed for majors in: Biology, Science, and Pre-Professional programs.

### **LABORATORY MATERIALS**

Investigating Biology: A Laboratory Manual for Biology (Custom for the U of A) by Judith Morgan and Eloise Carter.

### **PREPARATION FOR LABORATORY**

Each week you will be required to read the exercise before coming to lab. This is absolutely necessary for the efficient completion of the lab. In adequate preparation before the laboratory will add a minimum of thirty minutes to your time in lab and will significantly decrease your success in accomplishing the laboratory objectives.

### **ABSENCE POLICY**

Laboratory attendance is required. You are expected to be in lab on time. **If you miss your lab, you will not be able to make-up the lab exercise.**

### **ACADEMIC MISCONDUCT**

All acts of dishonesty in any work constitute academic misconduct. This includes, but is not limited to, cheating, plagiarism, fabrication of information, misrepresentations, and abetting any of the above. The Academic Misconduct Disciplinary Policy will be followed in the event that academic misconduct occurs. Students should refer to the Student Affairs Handbook, which can be obtained in the Office of Student Life and Services in the Ferguson Center.

### **DISABILITY SERVICES**

If you are registered with the Office of Disability Services, please make an appointment with Dr. Rasco as soon as possible to discuss any course accommodations that may be necessary. If you have a disability but have not contacted the ODS, please call 348-5175 or visit Osband Hall to register for services

## GRADES

### 1. Distribution of points:

a. Best 7 of 9 weekly (daily) quizzes	7 X 10 = 70
b. Mini-lab reports	5 X 12 = 60
c. Main writing assignment	100
d. Home work/classwork	50
e. Tests (100 pts each)	300
<b>Total Lab Points</b>	<b>580</b>

### 2. Writing assignments:

- Mini-lab reports  
Reports will be written on **5** of the following labs:
  - Scientific Investigation
  - Diffusion and Osmosis
  - Photosynthesis
  - Bacteriology
  - Drosophila*
  - Enzymes
- Main lab report: following is a list of report components
  - Title (5 pts)
  - Introduction (20 pts)
  - Materials and methods (10 pts)
  - Results (20 pts)
  - Discussion/conclusion (20 pts)
  - References (5 pts)
  - Grammar & Format (20 points)

**Students must attend the laboratory period for the lab report and the mini-lab reports to be accepted. Late reports will not be accepted.**

### 3. GRADING SCALE

A+ = 99-100	B+ = 88-89	C+ = 78-79	D+ = 68-69	
A = 92-98	B = 82-87	C = 72-77	D = 62-67	F = <60
A- = 90-91	B- = 80-81	C- = 70-71	D- = 60-61	

## POLICY CONCERNING MIDTERM AND FINAL EXAMS

Make-up exams are To Be Arranged; call your instructor or Dr. Rasco.

## POSTING GRADES

Grades will not be posted. Please see your teaching assistant during his/her office hours to ask about grades or to review tests

### 4. COMPUTER LABS

Building	Room #	Phone #	Availability
Morgan	203/238	8-8493	All U of A students
Gordon Palmer	152	8-8598	All U of A students
Ten Hour	346	8-9264	All U of A students
Nott Hall	171	8-9885	MA 005 & 100 students