

BISC 160: BIOLOGICAL SCIENCES I
Introductory Biology for Science Majors
Fall 2014

COURSE SECTIONS

Section 1: 9:00 - 9:50 am, MWF, Nutt Auditorium (Music Building room 123), **Section 2:** 10:00-10:50 am, MWF, Nutt Auditorium (Music Building room 123), **Section 3:** 11:00-11:50 am, MWF, Nutt Auditorium (Music Building room 123)

PROFESSORS

Dr. Beckie Symula Section 1; Office: 202 Shoemaker; Office Hours: 3-5pm M, Th or by appointment.

Dr. Brad Jones, 1st half of semester for Sections 2,3; Office: 224 Shoemaker; Office Hours: 1-3 M, 1-3 W.

Dr. Brice Noonan 2nd half of semester for Section 2,3; Office: 502 Shoemaker; Office Hours: TBA.

REQUIRED COURSE MATERIALS

Textbook: *Life, the Science of Biology, 9th edition*. 2011. Sadava, Hillis, Heller & Berenbaum. W.H. Freeman & Co., Sinauer Associates, Inc. ISBN 978-1-4292-1962-4 (Hardcover) **OR** 978-1-4292-5302-4 (Looseleaf). These packages include a hardcover or looseleaf book, e-book and access to Bioportal and PrepU, the on-line resources associated with the book. We will use Bioportal for lecture, assignments and laboratory, so you are required to purchase the on-line access code. See Blackboard for textbook purchase options.

Clicker: You will be required to use a clicker during BISC 160 and 161. The University uses *Turning Technologies ResponseCard NXT Clicker* (ISBN: 9781934931455) as the campus standard, so most classes that use clickers will use this one. You must register your clicker on Blackboard. You will notice that there is an option to register your laptop or smartphone. Since BISC161 will use clickers for quizzes, this is not an option for our course.

COURSE RESOURCES

Blackboard and Bioportal: These places are the first to provide course-related information during the semester, including syllabus, on-line weekly quizzes, your grades, announcements, etc. Please follow the instructions for setting up BioPortal provided to you in lecture and on Blackboard. You **MUST** provide your student ID on BioPortal for your assignment grades to be added to your final grades. Any issues with BioPortal should be reported to BioPortal technical support (800-936-6899) immediately.

BISC 160/162 Resource Center (Shoemaker 309): Staffed by Nicole Lewis, located between the course lab rooms and is the place to go for information about any aspect of the class. Hours: T 8:30am to 11am, 1-4pm, W 1-4pm, Th 8:30am to 11am.

SI Sessions (Study Skills Sessions): Led by trained undergraduate SI Leaders (Anna Grace Stout, Breeley Sellier, Amit Tzivion): See the "SI Study Sessions" sidebar in Blackboard for semester schedule. **Students who regularly attend SI sessions are more likely to make a higher grade than those who do not.**

COURSE REQUIREMENTS

Prerequisites for BISC 160: minimum ACT mathematics score of 25 (SAT 580) or completion of MATH 121 and 123 or MATH 125 or CHEM 101 with a grade of A or B.

Biology Majors and Minors: The Department of Biology requires a final grade of C or better in all Biology Courses used to satisfy requirements for your degree.

Co-requisite Lab is BISC 161: Lab Book: Biological Sciences 161, Dr. Gail Stratton and Nicole Lewis, available in the campus bookstore. This is a separately graded course that is designed to complement lecture.

COURSE GOALS

LEARNING OBJECTIVES: BISC 160 is the first semester of a two-semester series *for science majors and those intending to enter the fields of medicine and pharmacy*. After completing this course, students should know basic concepts in Biological Sciences at the molecular, cellular and population levels, including energy transfer and use, genetics and evolution and the structure and function of cells. This is a foundation class that prepares students with the skills necessary for advanced courses in the biological sciences and related subjects. After BISC160, you should be able to:

1. Explain and implement the scientific method.
2. Describe the structure and function of biological molecules.
3. Describe the structure and function of each cellular component.
4. Explain the pathways that cells use to harvest chemical energy.
5. Explain how living things use genes to generate proteins and transmit information across generations.
6. Describe the process of biological evolution.

COURSE POLICIES

Attendance: Your regular attendance is expected. You MUST scan your ID at one of the four ID scanners in the auditorium at each lecture (but not during exams). We will also use Clicker data to verify your attendance.

Cell Phone/Electronics Policy: Use of cell phones, including texting, is limited to in-class activities. Please turn the ringer to silent. You may use laptops etc. for note taking, but it is expected that you will NOT be surfing web, using Facebook, etc. Please consider that your computer or cell phone use in the classroom is a distraction to you and your classmates. Note: graduate students and instructors sitting in on all lectures will enforce this policy. If we find that this privilege is being abused, we can take away the opportunity.

Academic Misconduct: In this course, academic misconduct applies to exams, assignments and online quizzes. Examples of academic misconduct can include, plagiarism (See Mbook), copying someone else's work or allowing someone else to copy your work, memorizing exam questions and providing them to students in another section, using your cell phone during exams or having someone else answer online assignment questions for you. The Ole Miss definition of Academic Misconduct can be found on pp. 4-6 in the Mbook (<http://dos.orgsync.com/home>). We do not tolerate any means of Academic Misconduct and will follow the University policy on generating sanctions in any event of misconduct that we identify.

Contacting us:

Blackboard- This is the fastest way for you to get an answer. If your question is about lecture material, you should first consult your textbook and/or attend one of the many SI and daily study sessions that are available to you—schedules are posted on Blackboard and outside the Resource Center.

Office Hours- All professors for this course hold regular weekly office hours. (See Blackboard for updated times). You are welcome to visit us at our office during these times and you do NOT need an appointment during these times. If your class schedule prevents you from seeing us at these times, then you can make an appointment by e-mail. Please do not phone unless it is an emergency. Please do NOT use our office hours to ask questions that are answered in the syllabus, on Blackboard or that are easily located in the textbook. Keep in mind that there are more than 800 students in the class; so use office hours for biological information and for major questions not answered by the syllabus, Blackboard or the Resource Center.

E-mail- If you have consulted Blackboard and still need to contact us, email: BISC160@olemiss.edu. **Do not email any of your instructors at their personal addresses (We don't have enough storage space to accommodate all of you!).** Any emails sent there are deleted immediately.

Please consider the following when emailing any professor:

- *Include your full name, your section number and your student ID.* We can't help you if we don't know who you are. The easiest way to do this is just to end your email with that information. For instance: "Thanks, John Smith, BISC 160 Sect. 2, 12345678". This is especially important if you send a message from an email other than go.olemiss.edu.
- *Write clearly.* Email to your professors is more formal than what you send to a friend. Try not to use texting short cuts, so we are absolutely sure of what you need! Think of the email as a short letter or formal request and not a text message. Please proofread your message before clicking send.
- *Only label your email as "Urgent" or "Emergency" if it really is.* Being in the hospital the night before an exam is an emergency. Over sleeping and missing lecture is not. Do not misuse this.
- *Give us time to reply.* You should receive a response within 48 hours, usually much less. If you send an email at 11:30pm Friday night, you might not get a reply until Monday afternoon. If you haven't had a reply within a couple of work days, please send a follow-up email.

Course Withdrawal Deadline (October 6, 2014): This is the last day to withdraw from the course. University policy states: "After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the student's academic dean. Unacceptable reasons for late withdrawal include dissatisfaction over an expected grade or a change in a student's degree program or major. In no case may a class be dropped after the last regular class day semester, session, or term. Courses dropped after the course withdrawal deadline will still appear on the student's official transcript. The W mark will be recorded if the student is passing the course at the time of withdrawal; the F grade will be recorded if the student is failing.

COURSE GRADES

Grading: There are a total of 275 points available for the class that can be obtained from exams and assignments.

	<u>Points</u>	<u>Example Calculation</u>	Scale:
Exam 1	50	35	A=90-100%
Exam 2	50	31	B=80-89%
Exam 3	50	27	C=70-79%
Assignments	25	23	D=60-69%
Final	100	80	F< 60%
Total	275	196	<u>We will NOT use the +/- grading scale option.</u>

Calculating your letter grade: $(196/275=0.712 \quad 0.712 \times 100=71.2\%=C)$

Online weekly quiz points are not added directly to this total, but to the total percentage of these points that you earn over the entire class, i.e. your final course average.

Exams: There will be 3 regular semester exams and a final exam, for a semester total of 250 questions. You can estimate your grade at any time by averaging all your exam scores.

Exam 1,	Friday, September 19 th	50 questions
Exam 2,	Monday, October 13 th	50 questions
Exam 3,	Friday, November 7 th	50 questions
Final exam,	Dates below	100 questions (50 from last fourth of class, 50 comprehensive)

Assignments: There will be 6 online assignments (5 points each) that you will complete through BioPortal (<http://courses.bfwpub.com/life9e>). Each assignment will be assigned on Monday at noon and will be due Thursday at 11:59pm. For each assignment, you will download a handout and you will complete the assignment on paper (or your computer). Then you will return to BioPortal and answer 5 multiple-choice questions. The lowest grade will be dropped. Any evidence that you have had someone else do your work for you will give you a 0 for that assignment. If you run into problems with BioPortal, call technical support immediately and provide us with an incident number from tech support to BISC160@olemiss.edu. Your ID number must be provided in BioPortal for your grades to count towards your final grade. If there are grading problems with any homework assignment, you must report the problem to BISC160@olemiss.edu within 2 days of the assignment due date.

On-line Quizzes: There will be 10 online quizzes and one will be dropped. This is your **only** opportunity for extra points! Log onto BioPortal between Friday noon and Sunday 11:59pm for each of the quiz weekends indicated on syllabus schedule. Read the on-line instructions carefully! You may take the 10-minute, 5-point quiz as many times as you like, but the score of your last effort will be recorded. If there are grading problems with any quiz, you must report the problem to BISC160@olemiss.edu within 2 days of the assignment due date. At the end of the semester, your earned quiz points will be averaged and up to **5 points** will be added to your final grade. If you earn 40/45 points for your quizzes, then you have earned 4.5/5 available quiz points. So 4.5 points are added to your final grade. For example, if you have 171 total points from your exams and all 25 homework points, you earned 196/275 points (71.2%). Then your final grade would be $71.2+4.5=75.7\%$.

Exam Rules: Bring your student ID, #2 pencil and one Scantron form # F-289 to every exam.

Scantron form # F-289 (half page, red print) will be provided to you at the start of each exam. **No electronic devices are allowed during an exam. Any cell phone, calculator, PDA, etc., that is on during an exam will be evidence of cheating and the student will make a zero on the exam.**

Exams will be returned as soon as possible. After analyzing your test, if you suspect a question was graded improperly, you have one week (from date of test return) to contact the Resource Center about the problem.

Makeup exams will only be given to those students who miss a test because of an official University activity or because of illness. *In all cases, arrangements for a makeup test must be made prior to the absence.* It is your responsibility to contact us in person to schedule a makeup exam. (You can schedule an appointment through BISC160@olemiss.edu to do this or attend office hours.). Make-ups are given solely at the instructor's discretion – do not assume that you will be automatically allowed to take a make-up exam. Make-up exams must be taken at a date and time decided by the instructor, generally within 2-3 days of the original exam date. Due to the size of this class and university regulations, exam dates are not negotiable. For example, do not schedule a family vacation to begin on the 6th of December if you have an exam on the 9th.

We reserve the right to alter this syllabus during the semester. Any changes will be announced in lecture.

LECTURE SCHEDULE: FALL 2014**Lecturers:** Dr. Beckie Symula (Section 1) and Dr. Brad Jones (Section 2, 3)

Mon.	8/25	Studying Life		1
Wed.	8/27	Small Molecules and the Chemistry of Life		2
Fri.	8/29	Small Molecules and the Chemistry of Life	<i>Bioportal Quiz 1</i>	2
Mon.	9/1	LABOR DAY HOLIDAY (No Classes)	Online assignment 1	
Wed.	9/3	Proteins, Carbohydrates and Lipids		3
Fri.	9/5	Proteins, Carbohydrates and Lipids	<i>Bioportal Quiz 2</i>	3
Mon.	9/8	Nucleic Acids and the Origin of Life	Add-Drop Deadline	4
Wed.	9/10	Cells: The Working Units of Life		5
Fri.	9/12	Cells: The Working Units of Life	<i>Bioportal Quiz 3</i>	5
Mon.	9/15	Cell Membranes		6
Wed.	9/17	Cell Membranes		6
Fri.	9/19	Exam 1 Bring Scantron, #2 Pencil & Student ID		
Mon.	9/22	Cell Signaling		7
Wed.	9/24	Energy, Enzymes and Metabolism		8
Fri.	9/26	Energy, Enzymes and Metabolism	<i>Bioportal Quiz 4</i>	8
Mon.	9/29	Pathways that Harvest Chemical Energy	Online assignment 2	9
Wed.	10/1	Pathways that Harvest Chemical Energy		9
Fri.	10/3	Pathways that Harvest Chemical Energy	<i>Bioportal Quiz 5</i>	9
Mon.	10/6	Photosynthesis: Energy from Sunlight	Course Withdrawal Deadline	10
Wed.	10/8	Photosynthesis: Energy from Sunlight		10
Fri.	10/10	Photosynthesis: Energy from Sunlight		10
Mon.	10/13	Exam 2 Bring Scantron, #2 Pencil & Student ID		
Lecturer: Dr. Beckie Symula (Section 1) and Dr. Brice Noonan (Sections 2 & 3)				
Wed.	10/15	DNA and Its Role in Heredity		13
Fri.	10/17	DNA and Its Role in Heredity	<i>Bioportal Quiz 6</i>	13
Mon.	10/20	The Cell Cycle and Cell Division: Mitosis	Online assignment 3	11
Wed.	10/22	The Cell Cycle and Cell Division: Mitosis		11
Fri.	10/24	From DNA to Protein: Gene Expression	<i>Bioportal Quiz 7</i>	14
Mon.	10/27	From DNA to Protein: Gene Expression	Online assignment 4	14
Wed.	10/29	Regulation of Gene Expression		16
Fri.	10/31	Regulation of Gene Expression	<i>Bioportal Quiz 8</i>	16
Mon.	11/3	The Cell Cycle and Cell Division: Meiosis		11
Wed.	11/5	The Cell Cycle and Cell Division: Meiosis		11
Fri.	11/7	Exam 3 Bring Scantron, #2 Pencil & Student ID		
Mon.	11/10	Inheritance, Genes and Chromosomes	Online assignment 5	12
Wed.	11/12	Inheritance, Genes and Chromosomes		12
Fri.	11/14	Inheritance, Genes and Chromosomes	<i>Bioportal Quiz 9</i>	12
Mon.	11/17	Evidence and Mechanisms of Evolution	Online assignment 6	21
Wed.	11/19	Evidence and Mechanisms of Evolution		21
Fri.	11/21	Evidence and Mechanisms of Evolution	<i>Bioportal Quiz 10</i>	21
	11/24-28	FALL BREAK (No Classes)		
Mon.	12/1	Evidence and Mechanisms of Evolution		21
Wed.	12/3	Species and their Formation		23
Fri.	12/5	Species and their Formation		23

The topics in the list above may change. You will be told in class when changes are made to this schedule. We will provide any changes or excluded sections of a chapter in "Textbook Reading" on Blackboard and in "Announcements" on BioPortal.

FINAL EXAM:	Section 1 (9:00 am)	Wednesday, Dec. 10, 2014	8-11 am
	Section 2 (10:00 am)	Friday, Dec. 12, 2014,	8-11 am
	Section 3 (11:00 am)	Monday, Dec. 8, 2014	12-3 pm

University rules allow a student to change the time of a final exam if that student has three tests on one day. In that case, they are eligible to change the exam held at noon or 7:30 pm. This means that only students in Section 3 (11:00am) may be eligible for change. No other examinations are to be given at other than scheduled hours, either for an individual or for a class, unless the instructor concerned has specific approval from the academic dean.

This syllabus is subject to change as needed: Last updated Aug. 12, 2014