

**BISC 162: BIOLOGICAL SCIENCES II**  
**Introductory Biology for Science Majors**  
**Spring 2020**

COURSE SECTIONS

**Section 1:** 9:00 - 9:50 am, MWF, Nutt Auditorium (Music 123)

**Section 2:** 10:00-10:50 am, MWF, Nutt Auditorium (Music 123)

PROFESSORS

**Dr. Beckie Symula** ([BISC162@olemiss.edu](mailto:BISC162@olemiss.edu)), 1st half of semester. Office: Shoemaker 202

**Dr. Richard Buchholz** ([BISC162@olemiss.edu](mailto:BISC162@olemiss.edu)), 2nd half of semester. Office: Shoemaker 104

REQUIRED COURSE MATERIALS

**Textbook:** *Principles of Life, 2nd Edition*. 2014. Hillis, Sadava, Hill & Price. W.H. Freeman & Co., Sinauer Associates, Inc. ISBN 978-1-4641-898-3 (Hardcover) **OR** 978-1-4641-8982-1 (Looseleaf). These packages include a hardcover or looseleaf book, e-book and access to the on-line resource, Launchpad. The e-book is also available as a downloadable .pdf file for those who need it. We use Launchpad for lecture and assignments, so you must purchase the on-line access code. Launchpad is free for 21 days, so you have access to your book immediately after you sign up (see below for link). The publisher provides **DISCOUNTED** purchases (<https://store.macmillanlearning.com/storefront/2017F0048-Bio>). If you are waiting on the Financial Aid office to purchase books or you have other financial issues, please contact us. We can help.

COURSE RESOURCES

**Blackboard/Launchpad:** You should check these resources each week for course information and announcements during the semester, including syllabus, on-line weekly quizzes, your grades, announcements, etc.

**Office Hours:** Dr. Symula: Shoemaker 219. Office hours: M 2-3p, W 2-3, Th. 11-1p, Dr. Buchholz: TBA

**BISC 160/162 Resource Center (Shoemaker 309):** Staffed by Mrs. Nicole Lewis. It is where students who do not have lab pick up exams.

**SI Sessions (Study Skills Sessions):** Led by trained undergraduate SI Leaders (**TBA**): See the "SI Study Sessions" sidebar in Blackboard for semester schedule. **On average, students who regularly attend SI sessions perform 5-10 points better on exams.**

COURSE REQUIREMENTS

**Corequisite Lab (BISC 163):** This is a separately graded course that is designed to complement lecture.

**Prerequisites for BISC 162:** Grade of A, B or C in BISC160 and BISC161.

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

COURSE GOALS

**Learning Objectives:** BISC162 is a foundation class that prepares students for advanced courses in biological sciences and related subjects. It is the second semester of a two-semester series *for science majors and those entering the fields of medicine or pharmacy*. After completing this course, students will be able to link together basic biological concepts between BISC160 and BISC162. After BISC162 you should be able to:

1. Explain how all organisms are linked through evolutionary history.
2. Describe and characterize the diversity of life based on evolutionary history.
3. Explain the interactions between organisms and their environments.
4. Describe the physiological processes that plants and animals use to maintain homeostasis.
5. Link physiological processes to cellular processes learned in BISC160.
6. Compare and contrast physiological processes among groups of organisms.

**Disability Access and Inclusion:** If there are aspects of this course that result in barriers to your full inclusion and participation, or to accurate assessment of your achievement (e.g., timed exams and in-class assignments, difficulty with the acquisition of lecture content, inaccessible web content, and the use of non-captioned or non-transcribed video and audio files), contact us as soon as possible. If you are registered with SDS, you must log in to your Rebel Access portal at <https://sds.olemiss.edu/rebel-access-portal> to request approved accommodations. Contact SDS at 662-915-7128 if you feel you are eligible for accommodations. We require that instructions specific to your needs are provided to us by the Office of Student Disabilities at least **1 week** before an exam.

**In Class Behavior:** All students must uphold the University Creed. We expect that your behavior will promote an open and diverse atmosphere that encourages learning. You are expected to respect all other students in the class. Tobacco products (e.g., dip, chew) are **NOT** allowed in the lecture halls or during exams. Please dispose of any trash you bring into the lecture halls properly.

### COURSE POLICIES CONTINUED

**Cell Phone/Electronics Policy:** In class use of cell phones is limited to BISC 162-related activities. Under no circumstances are you allowed to photograph lecture slides, video the professor or text during class. Audio recording of lecture must be requested from each professor on an individual basis. Recordings may not be shared with others. You may use laptops etc. for note taking, but it is expected that you will NOT surf the web, use Facebook, watch movies, etc. Computer use is a privilege that we will take away if it is abused. Please remember that your computer or cell phone use in the classroom is a distraction to you and your classmates.

**Academic Misconduct:** Academic misconduct applies to exams, assignments, online, lecture quizzes and other coursework. Examples of academic misconduct can include plagiarism, copying another's work or allowing someone else to copy your work, verbally helping someone answer questions on a graded assignment, memorizing and providing exam questions to students in another section, using your cell phone during exams or having someone else answer online assignment questions for you. We do not tolerate Academic Misconduct and will follow the policy on generating sanctions in any identified event of misconduct. The Ole Miss definition of Academic Misconduct can be found on pp. 4-6 in the Mbook (<http://dos.orgsync.com/home>). In any instance of Academic Misconduct, you will receive a 0 for the assignment in question and be reported for violating the Academic Honesty policy. More extensive cases of misconduct may result in a failing grade.

**Campus Emergencies:** <http://emergency.olemiss.edu/> provides information about campus-related emergencies due to weather or other circumstances. Read RebAlert texts and emails, and respond accordingly. RebAlerts allow the university to communicate essential information to the campus community when a disaster occurs. BISC162 professors will contact you via email and Blackboard to address any issues that directly affect our course.

#### **Contacting Us:**

**Office Hours-** Both professors hold regular weekly office hours. (See above, Blackboard or Launchpad for times). You are welcome to visit us during these times without an appointment. If your schedule conflicts with these times, then make an appointment by e-mail.

**E-mail-** If you have consulted Blackboard or the syllabus and still need to contact us, email: [BISC162@olemiss.edu](mailto:BISC162@olemiss.edu). Please do not email Dr. Symula or Dr. Buchholz at their personal addresses (Your email can get lost among many, many others).

You **must** use the following format when e-mailing us:

- Include your **name and section number** in your e-mail. We cannot help you if we do not know who you are.
- *Write clearly.* Think of the e-mail like a short letter and not a text message. Proofread your message before you send it.
- Only label your e-mail "Urgent" or "Emergency" if it actually is one of those things.
- Give us time to respond. We will try to answer within 48 hours. If we still don't respond, please check that you emailed BISC162.

**Drop Ins-**Do not just drop by your professor's office or the Resource Center outside of office hours. Please email [bisc162@olemiss.edu](mailto:bisc162@olemiss.edu) for "quick questions" or to make an appointment.

**Course Add/Drop and Withdrawal Deadlines:** The last day to add or drop the course without a fee is **January 27, 2020**. The Course Withdrawal deadline is **February 3, 2020**. 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, and 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."

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

Scantron forms # F-289 are available for purchase at the bookstore. **No personal electronic devices are allowed during exams. Use of an electronic device during an exam will be considered evidence of cheating and will result in a zero on the exam.**

**Missing exams:** If you have a medical emergency or other issue and need to miss the exam, please see the makeup exam policy below.

Contact us at [BISC162@olemiss.edu](mailto:BISC162@olemiss.edu) to discuss a possible makeup. Please note that makeup exams for Exam 2 are only possible with a University excuse or medical documentation from a doctor in Oxford.

**Exam return:** Exams will be returned as soon as possible in lab. If you are not in lab, please pick up your exam at the Resource Center office hours. After analyzing your test, if you suspect a question was graded improperly, you have one week (from date of test return) to contact us about the problem. Our lecture material is considered the authoritative source for exams (not Wikipedia, Google, etc).

**Makeup exams:** Only students who miss a test due to an official University activity, illness or emergency are eligible to take a makeup exam. *In all cases, you must make arrangements for a makeup exam prior to the absence or by 5pm on the day of the exam.* Make-ups are given at the instructor's discretion –do not assume that you will be allowed to take a make-up exam. If you do not contact us about missing the exam by the 5pm on the day that the exam is given, 10% will be deducted from your exam grade. 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. You cannot make up exam 2 because you want to leave early for Spring Break.

### COURSE GRADES

**Grading:** There are a total of 275 points available for the class that can be obtained from exams and homework. We use standard rounding for grade calculations, so if your grade is a 69.5, you have earned a C.

	<u>Points</u>	<u>Example Calculation</u>	<u>Scale: We will NOT use the +/- grading scale.</u>
Exam 1	40	31	A=90-100%
Exam 2	40	30	B=80-89%
Exam 3	40	27	C=70-79%
Diversity quizzes	20	17	D=60-69%
Homework	25	23	F< 60%
Participation	15	15	Calculating your letter grade:
Attendance	15	12	(219/275=0.796 0.796 x 100=79.6%=B)
Final	80	64	Sum the points you have and divide by the total.
Total	275	219	

**Grading issues:** Any issue you have with attendance, exam grades, participation or online assignments must be communicated to your professor *in writing* within 1 week of receiving the grade.

**Diversity quizzes:** There are a total of 4 quizzes on organismal diversity. Each quiz is worth 5 points. You will take each quiz on Launchpad (Dates: 1/29, 2/5, 2/19, 2/26 (all are Wednesday)). There will be five (5) questions on each quiz and each question will be worth 1 point. Diversity quizzes will be available at noon and due at 11:59pm on the same day. There will be slides with the required information posted on Blackboard that should be used while taking each quiz. Quizzes will be comprehensive. You may use the posted slides and your book and lab manual for quizzes, but you cannot work with others. Academic Misconduct rules apply to quizzes.

**Attendance:** Attendance is part of your grade. You **MUST** scan your ID at one of the ID scanners in the auditorium at each lecture (but not during exams). If you forget your ID card or do not scan it properly, you will be marked absent. The University requires that you attend class during the first two weeks of the semester or you will be dropped from both lecture and lab. Points will be scaled by the number of classes that you **attend and scan your ID**. There are approximately 37 classes during the semester. To calculate your attendance points, take the number of classes attended/37 and multiply them by 15. Class periods in which Podcasts replace lecture will not be counted towards attendance. See your professor during office hours to provide a hard copy of documentation for any University excused absences. If you have an illness or medical issue that will cause you to miss more than three classes, please contact us at [bisc162@olemiss.edu](mailto:bisc162@olemiss.edu). **Do NOT send any documentation by email**. If you have a medical excuse, you must provide an original hard copy of the document from a doctor in Oxford. **We automatically ignore your first four absences for any reason and you do not need to provide an explanation to us.**

**Participation:** You will complete activities and answer questions during lecture. To receive credit for activities you must turn in completed handouts or index cards with your name and student ID number on them at the end of lecture. Like with attendance, each activity will contribute to a total and will be scaled to the total number of activities given in lecture. For example, if there are 18 activities and you complete 16, you will have earned 89% of the score. We will provide regular updates regarding completion of activities on Blackboard.

**Exams:** There will be 3 regular semester exams and a final exam, for a semester total of 200 points.

Exam 1	Friday, February 14 <sup>th</sup>	40 points
Exam 2	Friday, March 6 <sup>th</sup>	40 points
Exam 3	Wednesday, April 8 <sup>th</sup>	40 points
Final exam	Dates below	80 points (40 from last 1/4 of class, 40 comprehensive)

**Launchpad Homework:** There are 6 online homework assignments (5 points each) that you will complete through Launchpad (<https://www.macmillanhigher.com/launchpad/hillis2e/12666249>) and your lowest score will be dropped. Each assignment will be assigned on Monday at noon and will be due Thursday before 11:59pm. For each assignment, you will download a handout and complete the assignment on paper (or your computer). Then you will return to Launchpad and answer 5 multiple-choice questions. Contact Launchpad (not us), if you have technical problems. Academic Misconduct rules apply to homework.

#### ***Opportunities for additional points***

**Launchpad Quizzes:** Quizzes are available on Launchpad between Friday noon and Sunday 11:59pm for each weekend indicated on syllabus schedule. You may take the quiz as many times as you like, but the score of your last effort is recorded. One quiz will be dropped. We will average your 11 highest quiz scores and add the average to the percent of points you earned for the class. For example, if you earn 50/55 points for your 11 quizzes, then the average is 0.91. The 0.91 is multiplied by 5% yielding 4.5% that will be added to your final grade. If you earned 73.1%, then by adding your quiz 'extra' your final grade would be 73.1+4.5=77.6=78%.

LECTURE TOPIC SCHEDULE

DR. BECKIE SYMULA

<u>Date</u>	<u>Lecture Topic</u>	<u>Homework/Quiz</u>	<u>Textbook Chapters</u>
1/22	1 The History of Life on Earth (Watch PODCAST before next lecture)	-	18
1/24	2 Reconstructing and Using Phylogenies	Launchpad Quiz 1	16
1/27	3 Reconstructing and Using Phylogenies	Homework 1	16, 19
1/29	4 Bacteria, Archaea and Viruses	Diversity Quiz 1	19, 20
1/31	5 The Origin and Diversification of Eukaryotes	Launchpad Quiz 2	20
2/3	6 The Origin and Diversification of Eukaryotes	Homework 2	20, 21
2/5	7 The Evolution of Plants	Diversity Quiz 2	21
2/7	8 The Evolution of Plants	Launchpad Quiz 3	21, 24
2/10	9 The Plant Body; Plant Nutrition and Transport in Plants; Plant Growth and Development		24-26 parts
2/12	10 Reproduction in Flowering Plants		27
2/14	Exam 1	<i>Bring Scantron Form F-289</i>	
2/17	11 The Evolution and Diversity of Fungi		22
2/19	12 Animal Origins and Diversity (Watch PODCAST before next lecture)	Diversity Quiz 3	23
2/21	13 Animal Origins and Diversity	Launchpad Quiz 4	23
2/24	14 The Global Ecosystem	Homework 3	45
2/26	15 Ecological Communities	Diversity Quiz 4	44
2/28	16 Ecological Communities	Launchpad Quiz 5	44
3/2	17 Populations (Watch PODCAST before next lecture)	-	42
3/4	18 Conservation Biology ( <b>Ch. 58 from Life 11e</b> )	-	<b>*on LP*</b>
3/6	Exam 2	<i>Bring Scantron Form F-289</i>	
3/9-15	<b>SPRING BREAK</b>		
		-	
	<b>DR. RICHARD BUCHHOLZ</b>		
3/16	20 Fundamentals of Animal Function	-	29
3/18	21 Control by the Endocrine and Nervous Systems	-	35
3/20	22 Control by the Endocrine and Nervous Systems	Launchpad Quiz 6	35
3/23	23 Neurons, Sense Organs and Nervous Systems	Homework 4	34
3/25	24 Neurons, Sense Organs and Nervous Systems	-	34
3/27	25 Circulation	Launchpad Quiz 7	32
3/30	26 Circulation	Homework 5	32
4/1	27 Breathing	-	31
4/3	28 Breathing	Launchpad Quiz 8	31
4/6	29 Nutrition, Feeding and Digestion	-	30
4/8	31 Exam 3 <i>Bring Scantron Form F-289</i>		
4/10	32 <b>Good Friday (No Classes)</b>		
4/13	30 Water and Salt Balance	-	36
4/15	32 Water and Salt Balance		36
4/17	33 Immunology: Animal Defense Systems	Launchpad Quiz 9	39
4/20	33 Immunology: Animal Defense Systems	Homework 6	39
4/22	34 Muscles and Movement	-	33
4/24	35 Muscles and Movement	Launchpad Quiz 10	33
4/27	36 Animal Reproduction	-	37
4/29	37 Animal Reproduction	-	37
5/1	38 Animal Development	-	38

The topics in the list above may change. You will be told in class when changes are made to this schedule.

Specific sections covered in the textbook will be provided on Blackboard under "Textbook Reading" on Blackboard and Launchpad.

**FINAL EXAM:** Section 1 (9:00 am) Wednesday, May 6, 2020 8-11 am Nutt Auditorium  
 Section 2 (10:00 am) Friday, May 8, 2020 8-11 am Nutt Auditorium

**Bring Scantron Form F-289 & Student ID.**

Our final exams are at 8:00 am, so, our final exams are not eligible for rescheduling.