

**BISC 160: BIOLOGICAL SCIENCES I: Introductory Biology for Science Majors
Fall 2020**

COURSE LOCATIONS AND SECTIONS

All four course sections will be conducted in an online format. Course material will be organized on Blackboard and links to alternate software will be available on Blackboard.

PROFESSORS

Office hours

Dr. Beckie Symula	All semester.	M 9-11a W 8-10a F 10-11a, or by appointment (via Zoom)
Dr. Colin Jackson	Before Exam 2	To be determined (via Zoom)
Dr. Brice Noonan	After Exam 2	T, Th 9-11a, or by appointment (via Zoom)

REQUIRED COURSE MATERIALS

Textbook: *Life, the Science of Biology, 12th edition.* Hillis, Heller, Hacker, Hall, Laskowski and Sadava. W.H. Freeman & Co., Sinauer Associates Inc. ISBN 978-1-3193-4044-5 (Hardcover) **OR** ISBN: 978-1-3193-4283-8 (Looseleaf). These packages include a hardcover or looseleaf book, e-book and access to the book's on-line resource, *Achieve*. We use *Achieve* for lecture and assignments, so you are required to purchase the on-line access code. *Achieve* is free for 14 days, so you will have access to your book as soon as the course opens. The publisher provides **DISCOUNTED** purchases (<https://store.macmillanlearning.com/us/storefront/202005414>). If you are waiting on Financial Aid or you have other financial issues, please contact bisc160@olemiss.edu. We can help.

REQUIRED TECHNOLOGY

Hardware: While all course materials are viewable and compatible with mobile devices, it is strongly recommended that you have access to a desktop or laptop computer for the duration of the course. Student computers and mobile devices need to be capable of running the latest versions of plug-ins, recent software and have the necessary tools to be kept free of viruses and spyware. Some software is available for free on IT Helpdesk [downloads](#) page.

Internet Service and Internet Browsers: Students are responsible to have Internet service. High speed Internet access is recommended as dial-up may be slow and limited in downloading information and completing online tests, assignments, or quizzes. We encourage you to use a Blackboard supported browser. Firefox is the preferred browser for Blackboard, but you may find Chrome works best with *Achieve*. Always run a Blackboard Browser Check before starting any assignments to verify that your browser is installed with the most up to date features.

Software: You will need to download the software for iClicker Reef. **iClicker Reef access is included with Achieve**, so there is no extra cost to participate in class with the iClicker Reef web or mobile app. You do **not** have to buy an extra access code or subscription. Please follow the instructions on Blackboard to correctly download and connect to iClicker Reef. Access to a computer with Microsoft Office installed will be helpful to take full advantage of all course features. Alternatives to MS Office are [WPS Office Free](#), [SoftMaker FreeOffice](#), [OpenOffice](#), and [LibreOffice](#).

COURSE RESOURCES

Blackboard and Achieve: All assignments and course material will be hosted on Blackboard and the publisher's site for our course. Please go to Blackboard and use the "Start Here" section of the Course menu. You will also need to link your Blackboard to *Achieve*. Please find the instructions to link the two sites on Blackboard. Please follow the instructions for setting up *Achieve* provided on Blackboard. You **MUST** provide your student ID number on *Achieve*. Any issues with *Achieve* should be reported to *Achieve* (MacMillan) technical support. Please see Blackboard for the best way to use support.

SI Sessions (Study Skills Sessions): SI sessions will be held by Zoom and are designed to help you learn how to best learn the course material and develop your study skills. These are led by trained undergraduate SI Leaders (Sara Grace Brownlee, Manuel Campbell, Brianna Chambers and Griffin Sanders): See the "Supplemental Instruction" sidebar in Blackboard or the board outside of the Resource Center for the semester schedule. **Students who regularly attend SI sessions do an average of 5-10 points better on exams.**

COURSE GOALS

LEARNING OBJECTIVES: BISC 160 is the first semester of a two-semester series. After completing BISC 160, students will know basic Biological concepts at the molecular, cellular and population levels. 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 structure & function of cellular components.
4. Explain the pathways that cells use to harvest chemical energy.
5. Describe the structure and organization of DNA.
6. Explain how living things use genes to generate proteins and transmit information across generations.
7. Describe the process of biological evolution.
8. Explain the processes that generate new species.

COURSE REQUIREMENTS

Prerequisites for BISC 160: minimum ACT mathematics score of 25 (SAT 580, SATR 600) or completion of MATH 121 and 123 or MATH 125 or CHEM 101 with a grade of A or B.

Co-requisite Lab is BISC 161: This is a separately graded course that is designed to complement lecture. Please direct all questions about lab to bisc161@olemiss.edu.

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

COURSE GRADES

Grading: There are a total of 300 points available for the class. The breakdown of points is as follows.

	<u>Points</u>	<u>Example Calculation</u>	<u>Scale:</u>	How to calculate your letter grade:
Exam 1	30	22	A=90-100%	Sum your earned points (see Example on the left.)
Exam 2	30	23	B=80-89%	Divide by total: $226/300=0.753$
Exam 3	30	25	C=70-79%	$0.753 \times 100=75.3\%=C$
Final	60	56	D=60-69%	We use standard rounding for grade calculations.
Homework	30	25	F< 60%	For example, if your grade is a 69.5, you have
Group notes	20	19		earned a C even without the Online Quizzes.
Attendance	20	18		(<i>Online quiz points are added to the 69.5, not to</i>
Participation	40	38	<u>We do NOT use the</u>	<i>the Total.</i>)
Total	300	212	<u>+/- grading scale.</u>	

Exams: There will be three regular semester exams and a final exam, for a semester total of 150 questions.

Exam 1	Wednesday, September 16 th	30 questions
Exam 2	Wednesday, October 7 th	30 questions
Exam 3	Wednesday, October 28 th	30 questions
Final exam	Dates below	60 questions (30 from last fourth of class, 30 comprehensive)

Homework: There are four online homework assignments (10 points each) that you will complete through *Achieve*. The lowest homework grade will be dropped. Each assignment will be available Monday at noon and will be due Thursday at 11:59pm. There are two parts to each assignment. Follow the instructions that you are given on *Achieve*. 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 *Achieve* problems, report the issue to MacMillan technical support immediately and email us (bisc160@olemiss.edu) with an incident number from tech support. If there are grading problems with any assignment, you must report the problem to bisc160@olemiss.edu **within 2 days** of the assignment due date.

Group notes: At the start of the semester, you will be grouped with 7-8 other students. Each week, you will create a set of group notes in a shared program (e.g., Google Docs). You will be assessed by weekly contribution to the document. You will not be graded based on what you contribute. Instead, you will need to create, edit, add to or correct the group's notes. As long as you regularly contribute to these documents, you will earn full credit for notes.

Attendance: Attendance in this online course will be measured as completing questions in lecture. Some lecture videos will have questions that you will answer through REEF iClicker. You will need to register for the iClicker software and use it on your phone or on your computer. You can expect approximately 0.5 points for each video that has questions. You will need to complete the questions by the given due date to earn the full points for the questions. You will be able to miss approximately 4 videos before there is an impact on the grades. Answers to the iClicker questions will not be scored for correctness, but correct answers will be reported to you.

Attendance verification: The University requires that we report whether you attend class. For an online course, we will ask you to complete the registration for iClicker and *Achieve* to verify your attendance. You must do this by 26 Aug. 2020. You will have 2 days to complete this registration if you add the class late. Please note that if you do not complete attendance verification for the lab, you will be dropped from the lecture (and vice versa).

Participation: Participation will be measured using two methods. First, before Lecture videos, you will complete a Reading Quiz. These will be hosted in *Achieve*. You will be able to take them as many times as you like. Like the iClicker questions, you will get credit so long as you complete the assignment. However, TAs will be reviewing results to make sure you're on track. Second, you will be given activities in class. These will be written assignments, multiple choice questions or various other activities. You will receive full credit for each assignment if you actively engage in the material. TAs will be reviewing your work to help us identify difficult topics and to make sure you are completing the tasks accordingly. Each activity will contribute to a total and will be scaled to the total number of activities that we do during the course. For example, if there are 18 Activities and Reading Quizzes and you complete 16, you will have earned 89% of the score. That would give you 35.6/40 Participation points.

Opportunities for additional points

Online Quizzes: There will be 9 online quizzes and the lowest will be dropped. Log onto Blackboard between Friday noon and Sunday 11:59pm for each of the 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 41/45 points for your quizzes, then you have earned 4.6/5 available quiz points. So 4.6 points are added to your final grade. For example, if you have earned 226/300 points (75.3%). Then your final grade would be $75.3+4.6=79.9\%=B$.

Course surveys: We will ask you to complete surveys on Blackboard. If you complete the surveys before the due date, you will have up to 4 points added to one of your exams. We will be doing more of these because of the new Mentor program.

COURSE POLICIES

Course Withdrawal Deadline (October 5, 2020): This is the last day to withdraw from the course. Please see the University policy for details on course withdrawal and the Drop-Add process (<http://catalog.olemiss.edu/academics/regulations/class-registration>).

Academic Misconduct: In this course, academic misconduct applies to exams, assignments and online quizzes. Examples of academic misconduct 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 or headphones 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.

Major medical issues during the pandemic: In the event that you are diagnosed with COVID19 or another illness that may limit your ability to participate in the course, please email bisc160@olemiss.edu as soon as you know that you cannot complete your coursework. We will create options for you depending on each individual's situation. Students and faculty must quarantine for 14 days if they have a positive COVID-19 test, possible virus exposure, or display any symptoms related to COVID-19. Students with COVID-19 should seek medical attention at the Student Health Center and contact their instructor to let them know that they are sick, quarantined, or have some other health-related absence. If students test positive for COVID-19 at any health care facility, they must contact the Student Health Center at 662-915-7274. (Faculty and staff should contact the Employees Health Service at 662-915-6550.) University Health Services will coordinate contact tracing to lessen the likelihood of spread.

Contacting us:

Please consult Blackboard for questions regarding the syllabus and other course announcements. Please try to seek out answers to lecture material questions in your text book or by attending SI sessions. If you cannot find the answer, use one of the following:

Office Hours- All BISC 160 professors hold regular weekly office hours. (See above or Blackboard for updated times). You are welcome to drop in 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, please make an appointment by e-mail (bisc160@olemiss.edu). Keep in mind that there are more than 700 students in the class; so use office hours for biological information and for major questions not answered by the syllabus or Blackboard.

E-mail- If you need to contact us, email bisc160@olemiss.edu. **Do not email any of your instructors at their personal addresses.** (We receive a lot of email and your email will get lost!).

You must use the following format when e-mailing us, or you will not receive a response:

- *Include your full name, your section number and your student ID.* One way to do this is to end your email with that information: "Thanks, Jenn Smith, BISC 160 Sect. 2, 12345678". This is crucial if you use an email other than go.olemiss.edu.
- *Write clearly.* Email to your professors is formal. Do not use texting short cuts, so we are absolutely sure of what you need. Think of the email as a short letter or formal request. It is not a text message. Please proofread your message before sending.
- *Only label your email as "Urgent" or "Emergency" if it really is. Do not misuse this.*
- *Give us time to reply.* You should receive a response within 48 hours. 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.

Exam Information: Exams will be held through Blackboard. You will be given 40 minutes for each exam, but you can take them at any time during the day that they are assigned. You will have your book and notes available during exams, but prepare as if you were taking a closed book exam as you only have approximately 1 min/question. Exam scores will be made available only after everyone has taken the exam. After analyzing your test, if you suspect a question was graded improperly, you will have one week (from the date the score is available to contact us about the problem. If a student is eligible for exam accommodations, the student must provide us a hardcopy of the accommodations provided by the office of Student Disabilities at least **1 week** before the exam is given.

Makeup exams will only be given to those students who miss a test because of an official University activity or because of illness or family emergency. *In all cases, arrangements for a makeup test must be made prior to an official University absence.* If you do not contact us about missing an exam by 5pm of exam day, 10% will be deducted from your exam grade. It is your responsibility to contact us in person to schedule a makeup exam. (To do this, schedule an appointment through BISC160@olemiss.edu or attend office hours.) Make-ups are given at the instructor's discretion. Do not assume that you will be 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.

Final Exam: The Final Exam will be given on Blackboard during the week of finals, but you will be able to take it at a time that best fits your schedule. You will be given the normal 3 hour time to take the exam, but you MUST finish the exam 3 hours after you start. If the University changes the final exam policy, we will let you know any changes as soon as we are told.

UNIVERSITY POLICIES

Blackboard: All students at the University of Mississippi (UM) have a WebID (and associated password) that is used to access online resources (e.g., registering for classes, etc.) and the university's course management system Blackboard <http://blackboard.olemiss.edu/>. All course resources will be hosted by Blackboard. Please note that many of the files contain copyrighted information from the publisher of your textbook, MacMillan They are for your use only as a student in

Tech support: The IT Helpdesk is located in Weir Hall and is open Monday through Friday, 8 a.m. to 5 p.m. The helpdesk offers assistance to UM students and employees with technology-related issues involving software, hardware and networking. It provides support for email, Wi-Fi, Microsoft Office and other campus-wide applications. Visit, call 662-915-5222, Email helpdesk@olemiss.edu or visit their website for more information.

Campus Emergencies: <http://emergency.olemiss.edu> provides information about campus-related emergencies due to weather or other circumstances. Know what you will do in the event of an emergency. Read RebAlert texts and emails, and respond accordingly. RebAlerts communicate essential information to the campus community when a disaster occurs. this course.

Copyright Notice: Materials used in connection with this course may be subject to copyright protection under Title 17 of the United States Code. Under certain Fair Use circumstances specified by law, copies may be made for private study, scholarship, or research. Electronic copies should not be shared with unauthorized users. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability as well as disciplinary action under University policies.

IT Appropriate Use Policy: This policy describes the privileges of and restrictions on students, faculty, staff, and other users with respect to the computing and telecommunications systems offered by the UM. This policy is designed to protect the University community from illegal or damaging actions by individuals, either knowingly or unknowingly. Inappropriate use exposes the University to risks, including virus attacks, compromise of network systems and services, and legal issues. This policy directly addresses copyright issues related to illegal downloads and peer- to-peer file sharing. For Appropriate Use Policy questions, send an email to aup@olemiss.edu.

Academic integrity: The UM is dedicated to supporting and sustaining a safe and scholarly community of learning dedicated to nurturing excellence inside and outside of the classroom. Each student has a duty to become familiar with university values and standards reflected in university policies, and each student has a duty to honor university values and standards reflected in University policies. These policies are outlined in the M Book. For a complete listing of policies, please visit the University Policy Directory.

Student Identity Policy: Federal regulations, our accrediting agency (Southern Association of Colleges and Schools, SACS) and university policies require that safeguards are used to ensure that the student who receives the academic course credit is actually the person doing the work. You will need to present your student ID before taking proctored exams and your instructor may verify your identity through live or virtual meetings.

Student Privacy Policy: The UM protects the privacy of all students, including online and distance learning students, through adherence to the Family Educational Rights and Privacy Act of 1974 (FERPA) through compliance with other institutional policies and procedures governing the management and security of protected information of faculty, staff, and students, and by outlining the expectations of privacy for the university community as regards to electronic information. [Student Privacy Policy](#).

TOPIC SCHEDULE: FALL 2020**Lecturers:** Dr. Beckie Symula and Dr. Colin Jackson

<i>Day</i>	<i>Date</i>		<i>Chapter Title (Topic)</i>	<i>Assignment available date</i>	<i>Chapter</i>
Mon.	8/24	1	Studying Life		1
Wed.	8/26	2	Studying Life, Small Molecules/Chemistry of Life		1, 2
Fri.	8/28	3	Small Molecules and the Chemistry of Life	<i>Extra Credit Quiz 1</i>	2
Mon.	8/31	4	Proteins, Carbohydrates and Lipids	<i>Online homework 1 (Gecko)</i>	2
Wed.	9/2	5	Proteins, Carbohydrates and Lipids		3
Fri.	9/4	6	Proteins, Carbohydrates and Lipids	Add-Drop Deadline, Extra Credit Quiz 2	3
Mon.	9/7		LABOR DAY HOLIDAY (No Classes)		
Wed.	9/9	7	Cell Membranes		6
Fri.	9/11	8	Cell Membranes	<i>Extra Credit Quiz 3</i>	6
Mon.	9/14	9	Cell Communication and Multicellularity		7
Wed.	9/16		Exam 1		
Fri.	9/18	10	Cells: The Working Units of Life		5
Mon.	9/21	11	Cells: The Working Units of Life		5
Wed.	9/23	12	Energy, Enzymes, and Metabolism		8
Fri.	9/25	13	Pathways that Harvest Chemical Energy	<i>Extra Credit Quiz 4</i>	9
Mon.	9/28	14	Pathways that Harvest Chemical Energy	<i>Online homework 2 (BPA)</i>	9
Wed.	9/30	15	Pathways that Harvest Chemical Energy		9
Fri.	10/2	16	Photosynthesis: Energy from Sunlight	<i>Extra Credit Quiz 5</i>	10
Mon.	10/5	17	Photosynthesis: Energy from Sunlight	Course Withdrawal Deadline	10
Wed.	10/7		Exam 2		

Lecturers: Dr. Beckie Symula and Dr. Brice Noonan

Fri.	10/9	18	Nucleic Acids and the Origin of Life		4
Mon.	10/12	19	DNA and Its Role in Heredity		13
Wed.	10/14	20	DNA and Its Role in Heredity		13
Fri.	10/16	21	The Cell Cycle and Cell Division: Mitosis	<i>Extra Credit Quiz 6</i>	11
Mon.	10/19	22	The Cell Cycle and Cell Division: Mitosis	<i>Online homework 3 (PCR)</i>	11
Wed.	10/21	23	From DNA to Protein: Gene Expression		14
Fri.	10/23	24	From DNA to Protein: Gene Expression	<i>Extra Credit Quiz 7</i>	14
Mon.	10/26	25	Gene mutation and Molecular Medicine		15
Wed.	10/28		Exam 3		
Fri.	10/30	26	The Cell Cycle and Cell Division: Meiosis		11
Mon.	11/2	27	The Cell Cycle and Cell Division: Meiosis		11
Wed.	11/4	28	Inheritance, Genes and Chromosomes		12
Fri.	11/6	29	Inheritance, Genes and Chromosomes	<i>Extra Credit Quiz 8</i>	12
Mon.	11/9	30	Mechanisms of Evolution	<i>Online homework 4 (Evol.)</i>	19
Wed.	11/11	31	Mechanisms of Evolution		19
Fri.	11/13	32	Speciation	<i>Extra Credit Quiz 9</i>	22
Mon.	11/16	33	Speciation		22

The timing of the topics in the list above may change. You will be told in a Blackboard announcement when changes are made to topics. We will provide any changes or excluded sections of a chapter in "Textbook Reading" on Blackboard. You can expect to devote at least 50 min for each topic. If a topic covers two days, you can expect it to take about 100 min. of your time.