General Biology: Diversity; Physiology; Ecology
BIOL. 119 (01), CRN# 50064, MWF 9:30-10:20,
Course Syllabus: Spring, 2020

Course Description:

An introductory course in the biological sciences covering animal diversity, animal biology, plant biology, and ecology. Biol 119 Counts for general education only when taken with BIOL 116. This course has a prerequisite of BIOL 117 and is intended for science majors and other well-prepared students.

Course Instructors:

Dr. Susan Bandoni Muench (Office: ISC 257, Phone: 245-5309, e-mail: bandoni@geneseo.edu**)**
Drop-in hours: Monday 2:30-3:45 PM, Wednesday 10:30-11:20 AM, Friday 10:30-11:20 AM and by appointment.

Dr. Suann Yang (Office: ISC 256, Phone: 245-5311, e-mail: (yang@geneseo.edu**)**
Drop-in hours: Monday 10:30-11:20 AM, Wednesday 10:30-11:20 AM, Thursday 10-11:15 AM and by appointment.

Textbook and Required Materials:

Textbook: Absolutely required for this course are the textbook (or eText) Biological Science **(Sixth Edition)** by Freeman et al., Pearson Cummings Publisher and the Modified MasteringBiology website access code. This code will have to be entered via the Canvas website for this course. Through the SUNY Geneseo bookstore you have three options for purchasing this text:

1) *Standalone Mastering code with E-Text* ISBN: 9780134294780
2) *Loose-leaf print text with ModifiedMastering Biology access code with E-text*
ISBN: 9780134528076
3) *Hardbound print text with Mastering Biology and E-text* ISBN : 9780134577821

Textbooks and MasteringBiology codes purchased for use in Biol 117 in the Fall 2019 semester are still valid and usable (i.e. you will not need to purchase anything new for this semester). If you choose to purchase your text elsewhere, you MUST also purchase access to MasteringBiology as you will have graded tutorials and quizzes to complete there. MasteringBiology also provides many other helpful supplements such as practice tests. Please note that you must have the 6th edition of the MasteringBiology access code. If you purchase the MasteringBiology for the 5th edition, you will not be able to complete quizzes or tutorials. Using the 5th edition of the textbook will not be supported, meaning that you will be responsible for knowing the chapter and page coordination between the fifth and sixth editions. Students facing a delay in purchasing MasteringBiology because of a temporary and verifiable financial emergency should contact instructors to avoid losing credit for quizzes and homework.

Course materials: Other course materials will be available within the Canvas System https://canvas.geneseo.edu/courses/16496. Self-help guides are available through the Canvas system website as well, https://wiki.geneseo.edu/display/cit/Canvas+Self+Help+Documents

Tophat access: You will be using a program called Tophat to record your participation during lectures. You will have to register for this access but it is free. You should have received an invitation to join the class called Biol 119-01, Spring 2020. You can also self-enroll: the join code is 587313. We ask that you enter your G number starting with G00 (two zeroes) and use your Geneseo email when you join the course. You can then log into Tophat during class to answer questions.

Evaluation:

Graded Work	Contribution:
Exams (4 in class, including final)	80%
Day-to-Day Activities (including reading quizzes, tutorials, practice tests, and participation)	20%

Day-to-Day activities: One quarter of your grade will come from keeping up with assigned readings, and from being an active participant in class. The day-to-day component of your grade will consist of online reading quizzes, tutorials, and class participation. Each of these components will contribute an equal share to the 20% of your grade.

Reading quizzes: There will be short online quizzes consisting mostly of multiple choice and other objective questions covering each of the assigned chapters in the textbook. **The role of the reading quizzes is to ensure that everyone has a common foundation of basic knowledge for the activities in class**. Reading quizzes emphasize basic terminology and major concepts allowing us to use class time for active learning and for the more challenging topics that will better prepare you to take the exams.

Quizzes are found within the MasteringBiology supplement, and linked through Canvas. You must complete each online quiz **by yourself**, within a narrow window of time (a little over 24 hours), prior to the class in which the chapter will be discussed. Quizzes are set up with a short time limit and a subset of possible questions will be delivered in random order. We discourage you from taking the quizzes before you have completed your reading assignments, because the short time limit and random order of concepts make it harder to look up answers in the book. Because reading quizzes are intended to be a self-assessment, they will be graded as an all-or-nothing assignment in which any passing grade (60% or greater) will receive full credit and a failing grade (<60%) will receive no credit. Although deadlines are set in advance, the schedule MAY change, so watch your email and listen for announcements in class. *Completion of every reading quiz during each quarter will earn a 10% bonus for the quarter's quiz grade. No bonus will be awarded if even one quiz is missed*.

Tutorials: In addition to the reading quizzes, there are online tutorials set up for you in MasteringBiology. **Tutorials are designed to help you shift from a passive style of studying to a more active style.** The window for completing these is longer and the tutorials for each chapter are designed to take about an hour to complete on average. Tutorials are open for one quarter of the semester and close immediately prior to each quarterly exam. *Completion of every tutorial during each quarter will earn a 10% bonus for the quarter's tutorial grade. No bonus will be awarded if even one tutorial is missed.*

Class participation: Research indicates that class attendance is a strong predictor of performance. Class participation may be recorded either through Tophat using your existing phone, tablet or laptop, or through collection of a work product from the class. Part (but not necessarily all) of the grade will come from completion.

Practice tests [NOT PART OF YOUR GRADE]: After completion of a chapter, there are optional practice tests for each chapter in MasteringBiology. These contain more challenging questions than the reading quizzes. Practice tests, like tutorials will also have a longer window of opportunity for completion. Practice tests are open for one quarter of the semester and close immediately prior to each quarterly exam.

Quarterly Exams: There will be four exams, each covering roughly one-quarter of the course and consisting of multiple-choice questions, given during class time. The four quarterly exams account for 80% of your final grade (20% each). Although there is no comprehensive exam in this class, the material is naturally cumulative, and you will not succeed in learning later topics if you have not mastered earlier topics. For example, understanding ecological biology in the fourth quarter depends on having a good foundation of animal and plant biology learned

in the second and third quarters. The schedule of topics may be subject to change, but the exam dates are fixed. Content coverage on the exams will be adjusted if necessary.

Final Exam: This course will not have a comprehensive final exam, but instead will have the option of replacing ONE earlier exam score. Exams from all four quarters will be offered during the final exam time, but you will have the opportunity to replace only your lowest score. During the last week of class you will be able to select which exam you wish to retake. The higher of the two grades will be used for final grade calculations. For example, if you choose to retake exam #3 for which you scored 65% during the semester, you will use the final exam period to take a new exam on the material tested in quarter 3. If you receive a grade of 85%, then that will replace your exam #3 grade.

For all exams, bring with you #2 pencils and your college identification card. Sit in alternate seats, and do not communicate with students around you once the exam is in progress. You must silence your phone or turn it off, and place it with the display face down where proctors can see it. It is important to arrive on time as you will not get extra time to complete your exam if you arrive late, and you will not be allowed to start the exam once people begin leaving. Be sure that you fill in your name and G00 number correctly on the Scantron form, and put your name on your paper exam. Make sure that you have completed all of the questions before you turn your exam in.

Grades: You will be able to track your performance through the semester using the gradebooks in MasteringBiology and Canvas. Initially, scores for quizzes, tutorials and practice tests will appear in the gradebook in MasteringBiology as you complete them, and periodically, grades will be transferred to Canvas. Mastering quizzes and tutorials will initially appear in Canvas in gradebook categories worth zero points. Once per quarter we will compute modified weighted scores for quizzes, tutorials and participation that reflect drops and conversion of quiz scores to zero or one. You can use the "grades tab" in Canvas to get a more detailed look at your progress to date. Grades will follow the following point distribution, usually without adjustment or "curving" and with no quota for particular letter grades:

>93%, A;	77-79%, C+
90-92%, A-	73-77%, C
87-89%, B+	70-72%, C-
83-86%, B	60-69%, D
80-82%, B-	<60%, E

Resources for success: Successful students in BIOL 119 achieve their goals through their own unique paths, but they have several characteristics in common. They recognize the importance of strategic planning for a task, monitoring their performance on the task, reflecting on how their performance on the task relates to what they did or did not do, and finally modifying their plans for similar future tasks. They also know that this cycle of learning is a process that requires them to take the first step, and expect that success in different courses may require different strategies. Thus, your faculty members have designed BIOL 119 with a range of resources for you to incorporate into your strategies for learning. In past semesters, we have found that students who take an active approach to learning–by using these resources regularly–earn on average a full letter grade higher than those who do not. Here are your options:

Workshop sessions: Voluntary review and problem-solving workshop sessions will be scheduled throughout the semester. In addition to answering questions based on the lecture material and homework assignments, we can also use the voluntary review sessions to 1) answer any questions that you might have about the reading assignments; 2) assist you with study skills using specific examples drawn from the course material; and 3) discuss test taking strategies. Dates, times, and location will be announced in class.

Supplemental instruction: Supplemental instruction (SI) will also be available for this class. SI sessions are facilitated by trained peer leaders and will focus on mastery of the content and concepts in Biol 119. SI sessions will be collaborative and active. SI will increase your chances of achieving a better grade in this class

by providing guided practice and assistance with studying. Additional information will be provided during the first week of class by the SI leader, Max Pham, pnp2@geneseo.edu.

Drop-in hours: Faculty have regularly scheduled times in which we are available in our offices to work with students one-on-one or in small groups of students. No appointments are necessary during these scheduled drop-in hours. Please direct your content questions to the instructor who has lectured on the particular topic and direct questions about general course issues such as making up exams to the instructor currently not lecturing.

Course Goals & Content:
This course has two main objectives; the first is to increase your biological knowledge and prepare a firm foundation of knowledge for the courses that follow and the second is to help you develop the intellectual skills needed for advanced study of biology: to develop the ability to organize information from various disciplines, to fit it into a conceptual framework, to use it in the synthesis of new ideas and to understand how biologists think and approach scientific questions.

Learning outcomes for BIOL 119
Upon completion of this course, through multiple choice exams, quizzes, and In-class Tophat questions, students will:

1. Describe the diversity and unity of organisms: identify characteristics that unify major taxa and recognize the relationships among major taxa.
2. Understand the basic form and function of the major groups of organisms and how this structure continuously evolves.
3. Describe the mechanisms by which organisms interact with their environment in ways that perpetuate life processes.
4. Use models to explain complex biological phenomena.
5. Apply knowledge of biological systems to solve novel problems in and outside of class.
6. Demonstrate adjustment to college expectations through successful independent completion of course requirements including online reading quizzes and in-class Tophat quizzes.

Important Policies for Biology 119:

Accessibility. SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional, or cognitive disabilities. Accommodations will be made for medical conditions related to pregnancy or parenting. Requests for accommodations including letters or review of existing accommodations should be directed to the Office of Disability Services in Erwin Hall 22 or disabilityservices@geneseo.edu or 585-245-5112. Additional information on the Office of Disability Services is available at www.geneseo.edu/dean_office/disability_services.

- *Student responsibility:* Please submit your letter of accommodations to us at the beginning of the semester and make an appointment to discuss arrangements.
- *Instructor responsibility:* We are committed to working with you to figure out how to create a just learning environment while meeting the learning outcomes of the course. Unless you communicate otherwise, we will keep all accommodations confidential.

Professionalism: Your choices can affect the learning experiences of other students in the class as well as your own. While this is true for any college class, the problems are especially acute in very large classes like Biology 119. Please arrive on time, stay through class, turn off your cell phone (including vibration mode), and use laptops and other technology only for class-related activities. It is understood that the continuing development of new technology can be beneficial to the process of education. For this reason, laptops and smartphones are permitted for note-taking and viewing classroom materials. Unacceptable classroom use of technology includes, but is not limited to social media websites, e-mail, playing games, and cell phone photography. These diversions not only reduce your class participation, they can also distract those around you. If you disrupt the lecture or are

distracting others around you, you may be asked to leave and forfeit your participation / Tophat grade. If the behavior of other students around you is affecting your learning, let them know, and please tell us.

If you have an emergency for which you need your cell phone to be turned on, talk to the instructor before the beginning of the lecture and to be excused from this rule. Only then will you not be asked to leave if your cell phone rings/vibrates during the lecture period.

Communication: Check your e-mail daily in order to ensure that you receive reminders of what to bring to class, as changes in schedule are sometimes necessary. E-mail is also usually the fastest way to get in touch with us. Because our jobs require that we interact with many students, please include your name and **Biol119** in all e-mails sent to us.

Missing exams: All four exams are required, and making up an exam requires a valid excuse. Examples of valid reasons for missing exams include (but are not limited to) personal illness, death or serious illness in the family, representing the college, religious observances, and required training for work or military service. Where possible, discussion of alternative arrangements should take place ahead of the exam. For emergencies arising on the day of the exam, you need to contact us within 24 hours to arrange an alternative time to take your exam.

Missing quizzes and tutorials: The full benefit of reading quizzes occurs before, and not after class. However, we know that things come up and you might miss a quiz deadline. You can make up a maximum of two quizzes during office hours, with these limitations: 1) you must make it up during the first opportunity (normally within a week) and 2) you will not be able to use the text book or notes.

The deadlines for tutorials are designed to allow time for you to analyze your performance and seek help on specific concepts before each exam. You have three weeks to complete the assignments in time for the due date 2-3 days before the test. After the due date, there is a steep decline in the points you can receive (33%) per day, so that by the day of the test, you cannot earn credit.

Note that if you complete a quiz or tutorial, even if you get most or all of the answers wrong, you will be able to review from it later, but if you do not complete it, you cannot use it for review. It is therefore always better to complete the online activities, even with low scores, than to skip them. Finally, we know that we all occasionally make mistakes beyond missing deadlines. To cover these cases, one quiz and one tutorial will be dropped each quarter. The policies above may be further modified on a case-by-case basis for students working with the Dean of Students or with the Office of Disabilities Services.

Missing class participation: You cannot make up class participation regardless of the reason for your absence; this includes illness, family emergencies and athletic competitions. One participation score will be dropped each quarter. Because a portion of your participation grade comes from participation alone, irrespective of whether your answers are correct, you are always better off showing up and trying even when you are less prepared than would be ideal. Please contact us along with the Dean of Students if you will be absent for longer than one week. If you have an extended emergency, we can transfer drops from another quarter to cover. Use the option to drop participation scores wisely. If you have chosen to miss classes and then have an emergency that requires an extended absence, you will not be able to transfer drops from other quarters.

Appealing grades: Any graded work may be submitted for re-evaluation along with a written appeal. The basis for your appeal will usually be either (1) ambiguity in class notes or reading materials, or (2) ambiguity in the test question. The appeal should contain a brief written explanation of your concerns, including your reading of the ambiguous written material, and why you answered the question the way that you did. Appeals should be turned in within one week of receiving the graded work. When you submit your written appeal, we will schedule an individual conference to discuss it.

Academic dishonesty: Academic dishonesty includes both cheating on exams and quizzes as well as misrepresenting your identity for exams or for class participation. Cheating here refers to violating the rules of

quizzes and exams, including collaboration or copying from other students' work. Misrepresenting your identity includes using another student's Tophat or Mastering accounts, or sending another person to take your exam. The penalty for cheating or misrepresenting your identity will be a grade of zero on the assignment score, quiz or exam involved. Because academic dishonesty is defined in detail here, claiming ignorance of the policies cannot serve as an excuse.

Policy exceptions: Policies are designed to address common issues and concerns. We cannot anticipate every possible problem that may arise, and therefore policies can have limits and exceptions! If you are experiencing problems in completing class work for any reason, please stop by during faculty drop-in hours or make an appointment to talk with one of us.

Important dates to keep in mind:

Jan. 28	Drop/Add Period Ends
Feb. 12	Exam I
Mar. 04	Exam II
Mar. 10	Midsemester
Mar. 13 - 20	Spring Break – no class
Apr. 07	Last day to withdraw from full semester courses
Apr. 08	Exam III
Apr. 22	GREAT Day - no class
May 06	Exam IV
May. 11	Final Exam 8:00 – 10:30 am, Newton 202

VERY IMPORTANT INFORMATION ABOUT POLICIES FOR THE BIOLOGY MAJOR:

Biology and Biochemistry proficiency: Students must have a C+ or better average in their first two REQUIRED Biology lecture courses at SUNY Geneseo to remain as Biology or Biochemistry majors. For most this is Biol 117 and Biol 119 but for those accepting AP credits or transfer students it could be other combinations.

Minimum Competence Requirement: To graduate with a biology major, students must attain a grade of C- or better in all required biology courses (excluding electives). A grade of C- must be achieved in any course before it can be used as a prerequisite for another course. A student may only repeat a required biology course or related requirement once for major credit and the course must be taken at the next offering of the class. If a student does not earn at least a "C-" on the second taking of the class, she/he will not be able to complete the major.

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MWF 9:30-10:20, Instructors: Drs. Muench and Yang
Course Outline, Spring 2020

Class Schedule	Date	Chapters (Subject to adjustment)	Instructor
		Week 1: 1/22 – 1/24	
1.	January 22	Introduction / Syllabus / Schedule / Policies	**Dr. Muench**
2.	January 24	Ch. 26 – Bacteria and Archaea	"
		Week 2: 1/27 – 1/31	
3.	January 27	Ch. 26/27 – Bacteria continued / Protists	"
4.	January 29	Ch. 27 – Protists	"
5.	January 31	Ch. 28 – Green algae and Land Plants	"
		Week 3: 2/3 – 2/7	
6.	February 3	Ch. 28 – Green algae and Land Plants	"
7.	February 5	Ch. 29 – Fungi	"
8.	February 7	Ch. 29 – Fungi / Ch. 34 – Plant Form and Function	"
		Week 4: 2/10 – 2/14	
9.	February 10	Ch. 34 – Plant Form and Function	**Dr. Yang**
10.	**February 12**	**Exam 1 (chapters 26, 27, 28, and 29)**	**-**
11.	February 14	Ch. 34 – Plant Form and Function	"
		Week 5: 2/17 – 2/21	
12.	February 17	Ch. 35 – Water and Sugar Transport in Plants	"
13.	February 19	Ch. 35 – Water and Sugar Transport in Plants	"
14.	February 21	Ch. 36 – Plant Nutrition	"
		Week 6: 2/24 – 2/28	
15.	February 24	Ch. 37 – Plant Sensory Systems, Signals, and Responses	"
16.	February 26	Ch. 37 – Plant Sensory Systems, Signals, and Responses	"
17.	February 28	Ch. 30 – An Introduction to Animals	**Dr. Muench**
		Week 7: 3/2 – 3/6	
18.	March 2	Ch. 31 – Protostome Animals	"
19.	**March 4**	**Exam 2 (Chapters 34, 35, 36, 37, 30)**	**-**
20.	March 6	Ch. 31 – Protostome Animals	"
		Week 8: 3/9 – 3/13	
21.	March 9	Ch. 32 – Deuterostome Animals	"
22.	March 11	Ch. 32 – Deuterostome Animals	"
23.	March 13	Ch. 39 – Animal Form and Function	"
		Week 9: 3/16 – 3/20 – Spring Break	
24	March 16	no class	-
25.	March 18	no class	-
26.	March 20	no class	-
		Week 10: 3/23 – 3/27	
27.	March 23	Ch. 40 – Water and Electrolyte Balance in Animals	**Dr. Muench**
28.	March 25	Ch. 40 – Water and Electrolyte Balance in Animals	"
29.	March 27	Ch. 42 – Gas Exchange & Circulation	"
		Week 11: 3/30 – 4/3	
30.	March 30	Ch. 42 – Gas Exchange & Circulation	"
31.	April 1	Ch. 43 – Animal Nervous Systems	**Dr. Yang**
32.	April 3	Ch. 43 – Animal Nervous Systems	"
		Week 12: 4/6 – 4/10	
33.	April 6	Ch. 43 – Animal Nervous Systems	"
34.	**April 8**	**Exam 3 (Chapters 31, 32, 39, 40, 42, and 43)**	**-**
35.	April 10	Ch. 44 – Animal Sensory Systems/ Ch. 45 – Animal Movement	"

		Week 13: 4/13 – 4/17	
36.	April 13	Ch. 45 – Animal Movement/Ch. 47 – Reproduction	**Dr. Muench**
37.	April 15	Ch. 47 – Reproduction	"
38.	April 17	Ch. 49 – An Introduction to Ecology	**Dr. Yang**
		Week 14: 4/20 – 4/24 (No Wed Class 4/22)	
39.	April 20	Ch. 49 – An Introduction to Ecology	"
40.	April 22	GREAT Day – No Class	"
41.	April 24	Ch. 51 – Population Ecology	"
		Week 15: 4/27 – 5/1	
42.	April 27	Ch. 51 – Population Ecology / Ch. 52 – Community Ecology	"
43.	April 29	Ch. 52 – Community Ecology	"
44.	May 1	Ch. 53 – Ecosystems and Global Ecology	"
		Week 16: 5/4 – 5/6	
45.	May 4	Ch. 53 – Ecosystems and Global Ecology	"
46.	**May 6**	**Exam #4 (Chapters 44, 45, 47, 49, 51, 52, and 53)**	-
47.	**May 11 (Mon)**	**Final Exam - 8:00-10:30 AM, Newton 202**	-