BIOL 101: GENERAL BIOLOGY (5 credits)

UWSP at Wausau (Spring 2021) Lecture: TTh 11-12:15, virtual classroom (Zoom) Lab Th: 1-1:50 pm, virtual classroom (see below)

Instructor: Dr. Laura Lee office: 217-B Leopold Building, UWSP at Marshfield phone: 715-389-6524 email: llee@uwsp.edu office hours: tba (or by appointment)

Required Texts:Concepts of Biology by Fowler, Roush & Wise, Open access (see below).
Exploring Biology in the Laboratory: Core Concepts (2nd ed.), by Pendarvis & Crawley,
Morton.
Additional resources may be posted on via Canvas.

Course Description & Objectives:

Biology 101 is an introductory biology course that is ideal for non-majors, and as a pre-requisite for courses in the nursing sequence. The overall goal of this course is for students to develop an understanding of the concepts, terminology and techniques used in the field of biology. We will explore basic cellular-level processes, genetics and reproduction, evolution, biological diversity, animal physiology, and how organisms relate to one another within their environments, with special emphasis on the applicability and relevance of biological concepts, knowledge, and technology to average citizens.

GEP, AAS Designation

- GEP Designation: NSC (Investigations Natural Science)
- AAS Designation: NW (Natural World), LS (Lab Science)

<u>Course Objectives</u>: Students completing this course will attain varying levels of proficiency in their ability to demonstrate:

- 1. an appreciation of the scope of topics in the field of biology, and how they are inter-related.
- 2. the use of the scientific method to form and test hypothesis.
- 3. proficiency in skills used by biologists, in the lab and in the field.
- 4. an understanding of biological principles including:
 - a. cellular level functions that are necessary for life
 - b. inheritance and evolutionary change
 - c. the diversity of animals and plants within an evolutionary context
 - d. the function of animal organ systems
 - e. the basic functioning of populations, communities, and ecosystems
- 5. an understanding of the relevance of biological principles to their lives and society.

Books, Notes & Study Aids:

Good news: your textbook for this class is available for free online! Your book is available in web view and PDF for free (Concepts of Biology from OpenStax, ISBN 1938168119, <u>www.openstax.org/details/conceptsbiology</u>). You can also purchase on iBooks,or purchase a print version from the Open Stax website on Amazon.com, or from the campus bookstore. You can use whichever formats you want. Web view is recommended -- the responsive design works seamlessly on any device. But, whichever form you get it in, make sure to use it! Every student has good intentions at the beginning of the year in terms of reading and studying. But, by the end of the semester, many textbooks remain closed and unused. I know you'll get busy and want to blow off reading, but I expect you to use your textbook! Do the assigned reading either before or after class (they're not long). Use the animations, photos and diagrams in the textbook to further your understanding of the material.

The lab manual for this course, is unfortunately, not available free online, and you MUST have the lab manual in order to succeed in this class. It should come as a loose-leaf collection, so you can remove individual chapters as you use them. Because you will actually be doing the lab activities at home, you will not need your manual every week (sometimes your activity will be online or from a handout). Regardless, it is essential that you read the week's lab materials before coming to class so that you will have the proper knowledge to do the lab correctly

This course will be taught using Canvas as an instructional aid. You should all be provided with a Canvas login and password, and are given access to the Biology 101 Canvas site. All course material will be posted there, including quizzes, lecture outlines, objectives, exams, review sheets, web links, information about assignments and supplementary lab material. It is to your advantage to access and make use of this information. In the past, students who use it tend to "get more" out of the lectures and are better prepared for exams and assignments. If you are not familiar with Canvas, please see Canvas training resources here: https://www.uwsp.edu/canvas/Pages/default.aspx and here: https://wstp.instructure.com/enroll/36GKLY. You can log into Canvas directly the UWSP home page.

The Tutoring-Learning Center (TLC) offers FREE virtual tutoring to support you in your biology classes. The tutors are UWSP students who have done well in their classes and who are here to share their successful study habits and biology content knowledge to help others succeed. The TLC will offer two main forms of tutoring during Spring 2021. Drop-In Tutoring: tutors are waiting in a Zoom room where students can "drop-in" for assistance. No appointment or registration is required, and attendance is flexible. The schedule and Zoom links can be found here: http://www.uwsp.edu/tlc/Pages/dropInTutoring.aspx. One-on-One Tutoring: tutors are available for weekly, recurring appointments. Weekly attendance is required, as this service is designed for long-term assistance. To sign up, students can submit a request form through the TLC webpage: https://www.uwsp.edu/tlc/Pages/Mathandscischedules.aspx. Appointments are made based upon tutor availability – we cannot guarantee that every student will be matched with a tutor. One-on-One Tutoring is FREE for all UWSP students during Spring 2021!

Communication Information:

I am available in Zoom/Canvas without an appointment during office hours. Individual meetings can be arranged through an email request, phone call, or conversation directly before or after class. I do not hold normal office hours during the following weeks: First week of class, Spring Break, Finals Week. I will have additional "virtual office hours" in Canvas in the evening before each exam.

Although you can reach me by telephone or email, email is quicker and more efficient. Remember, some faculty receive as many as 100 emails per day. Please identify yourself (first and last name), as well as the class that you are in. Your email should be clear, concise, and professional so that your issues can be responded to effectively. Include the entire thread of an ongoing email conversation so that I can recall the history of your issue without searching for other emails you have sent.

Covid Information:

This class will be held synchronously via Zoom. For lab, we will meet for one hour for discussion/activities, etc. You will complete your lab activity for the week on your own. You are expected to attend all class sessions in real time, as class periods will not be routinely recorded. If you need to quarantine and are not ill, you should still be able to attend class via Zoom. Please contact me to make arrangements for any extenuating circumstances (illness, etc.).

Assessment:

<u>Course grades:</u> Your grade in this course is based on the following:

Exams: There will be 3 unit exams during the semester, each containing both lecture and lab
material. The fact that you do not have separate lab exams is NOT a reason to blow off the lab
portion of this course! Take your time looking at slides, analyzing data, etc., because this
information WILL show up on exams! You will have the opportunity to improve your grade on any
ONE exam by reworking it as a homework assignment (see details in Canvas). A final exam will be
given during the assigned final exam period. It will be comprehensive in nature, with a focus on the

last two weeks. All exams will be a combination of true/false, fill-in, multiple choice, short answer, essay, and "slide-based" lab questions. All exams will be held in real time, through Canvas (see below).

- Quizzes: Weekly quizzes will be posted on Canvas each Friday and will be due by midnight on Monday. Quizzes will cover information from the previous week's lectures and lab. At the end of the semester, the lowest quiz score will be dropped. Quizzes must be completed by their due dates – once closed, a quiz will not be re-opened!!
- 3. Labs/Assignments: Each week you will be turning in some combination of lab write-up/ assignment covering the previous week's material. All assignments will be submitted via Canvas and should be submitted on time points will be deducted for late assignments. Please submit labs in the form of Word Documents or PDF files if at all possible. All late assignments must be turned in before the next exam!
- 4. *Extra credit:* Extra credit points will be available during the semester (see Extra Credit instructions on Canvas). Please do not ask for additional, individual extra credit assignments.

Final Grade Distribution: The final grade distribution will be as follows:

93-100% = A	80-82.9% = B-	67-69.9% = D+
90-92.9% = A-	77-79.9% = C+	60-66.9% = D
87-89.9% = B+	73-76.9% = C	<60% = F
83-86.9% = B	70-72.9% = C-	

<u>University-wide assessment</u>: For the 2020-21 academic year, classes that fulfill outcomes at the Investigation Level of the UWSP <u>General Education Program</u> (GEP) will be assessed utilizing the GEP assessment portfolio process. The GEP Investigation Level includes courses that fulfill the Arts, Humanities, Historical Perspectives, Social Sciences and Natural Sciences <u>category learning outcomes</u>. Because 2020-2021 assessment focuses on Arts, Humanities and Historical Perspectives, BIOL 101 will not be formally assessed for the GEP this semester.

Course Attendance Policies:

Attendance in lecture and lab will help you to perform well on exams. Therefore, you are expected to attend all class sessions during their regularly-scheduled time. If you are ill, please contact me to make alternate arrangements. You will not be penalized for class absence due to Covid-related issues, or unavoidable or legitimate required military obligations, or medical appointments at a VA facility. You are responsible for notifying faculty members of such circumstances as far in advance as possible. All students are responsible for all lecture and lab material, whether or not actually in attendance. If you miss a lab/discussion session for any reason, you are still responsible for completing the lab on your own during the week. The consequence of poor attendance is likely to be failure in the course, because of the amounts and complexity of the material.

Unit exams will take place during the regularly-scheduled lecture times, but will be taken through Canvas (because we are virtual). Please make every effort to be available to take the exam during those times. Alternate exam times will not be scheduled **unless** arrangements have been made with me personally. Because exams are closed-book/closed-computer, we may be using HonorLock for all exams to guard against academic misconduct. You can find a short description of HonorLock here:

https://www.youtube.com/watch?v=xLSRgrBMz6c&feature=youtu.be.

Note that you will need a webcam in order to use HonorLock; please have your computer ready to go by the time of the first exam. If you need to borrow a laptop, a webcam, or space to take an exam, please contact your campus library.

Policy on Phones & Electronic Devices

Research supports that having visual access to a cell phone diminishes our ability to learn. Checking social media, texts, emails, and messages is unprofessional and disrespectful to our class community. Even though are class is being held virtually, and you will be on your computer to do so, please try to avoid the temptation to visit other websites and do other things while class is in session. I cannot force you to have your camera on, but I politely encourage it, as it adds to our sense of classroom community.

Accommodation of Religious Beliefs & Disabilities

It is UW System policy (<u>UWS 22</u>) to reasonably accommodate your sincerely held religious beliefs with respect to all examinations and other academic requirements. Any student who cannot be present for a scheduled exam or lab session due to a religious observance will be provided with an alternate way of fulfilling that particular course requirement, providing the student notifies me of the scheduling conflict at the beginning of the semester. Additionally, UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. I am always willing to work (to the extent allowed by the nature of the course) with students who require special accommodations because of disability. If accommodations are needed, please let me know and contact the appropriate office to complete an Accommodations Request form.

Care Team

The University of Wisconsin-Stevens Point is committed to the safety and success of all students. The Office of the Dean of Students supports the campus community by reaching out and providing resources in areas where a student may be struggling or experiencing barriers to their success. Faculty and staff are asked to be proactive, supportive, and involved in facilitating the success of our students through early detection, reporting, and intervention. As your instructor, I may contact the Office of the Dean of Students if I sense you are in need of additional support which individually I may not be able to provide. You may also share a concern if you or another member of our campus community needs support, is distressed, or exhibits concerning behavior that is interfering with the academic or personal success or the safety of others.

Academic Misconduct:

Integrity is an expectation of each UW-Stevens Point student. Campus community members are responsible for fostering and upholding an environment in which student learning is fair, just, and honest. Through your studies as a student, it is essential to exhibit the highest level of personal honesty and respect for the intellectual property of others. Academic misconduct is unacceptable. It compromises and disrespects the integrity of our university and those who study here. UWS 14 defines academic misconduct as any "action which a student: 1) seeks to claim credit for the work or efforts of another without authorization or citation; 2) uses unauthorized materials or fabricated data in any academic exercise; 3) forges or falsifies academic documents or records; 4) intentionally impedes or damages the academic work of others; 5) engages in conduct aimed at making false representation of a student's academic performance; 6) assists other students in any of these acts." UWS 14 allows for disciplinary sanctions that range from an oral reprimand to suspension or expulsion from the University. You can obtain a copy of the full academic misconduct policy through the Student Services office. If I observe academic misconduct, or if suspicions of cheating are reported to me, I will request that the identified parties come to my office to discuss the situation, and the procedures set out in UWS 14 will be followed. I recognize that the rules regarding academic misconduct can sometimes be confusing for students with respect to specific assignments or course work. For example, I encourage students to work together on assignments, but I require each student submit the work in his/her own words - no copying from vour friends, and no all submitting the same word-for word assignment! If you have questions, I encourage you to come and see me before the assignment is submitted. Ignorance or misunderstanding of the UW System policy will not serve as a valid excuse for academic misconduct.

Problems? Questions?

I hope that you will see me early on if you have any problems or questions. It is much more useful to deal with problems early in the semester, rather than wait until a few days short of the final and expect me to work miracles (my pet peeve). Please feel free to contact me as much or as often as you would like. I am usually available at any non-class time to meet with students – please take advantage of this. My main purpose for being here is to help you learn about biology!!

TENTATIVE BIOLOGY SCHEDULE OF EVENTS

WEEK	LECTURE (TEXT CHAPTS)*	LAB TOPIC
1	Intro to Biology (1)	Scientific Method
2	Chemistry (2) Cells (3)	Microscopes & Cells
3	Membranes & Transport (3)	Diffusion/Osmosis
4	Cell Metabolism (4, 5)	Cell Metabolism
5	EXAM 1 (Weeks 1-4) Cellular Reproduction (6, 7)	Cell Reproduction
6	Inheritance & DNA (8, 9)	Genetics
7	Evolution (11)	Evolution
8	Taxonomy (12)	Taxonomy
	SPRING BREAK!!!	
9	Bacteria & Protists (13) Fungi (13)	Protists & Fungi
10	EXAM 2 (Weeks 5-9) Plants (16)	Plants
11	Plants (14)	Animal Tissues
12	Animals (15)	Invertebrates
13	Animals (15)	Vertebrates
14	EXAM 3 (Weeks 10-13) Ecology: Ecosystems & the Biosphere (20)	Ecology: Ecosystems
15	Ecology: Populations & Communities (19)	Ecology: Populations
16	Exam 4/Final Exam Wednesday, December 19. 8:00-10:00 am	

* See objectives for more detailed reading assignments.