



NORTHWEST
MISSOURI STATE UNIVERSITY
MARYVILLE | KANSAS CITY

Department of Natural Sciences

04-102-02 General Biology (3 credit hours)
Spring 2021

Instructor: Dr. Kurt Haberyan

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Prerequisites

None.

Textbook and Supplementary Materials

Simon, E.J. 2017. *Biology: the Core*. Pearson, New York. (*The cover has the book title inside a red ring - actually a close-up of a fish eye*)

Students should bring the *Basic Course Outline* to class, either as an electronic document on their laptop or as a printed copy (total about 125 pages). These outlines can be filled in during class, and are available from our Northwest Online website.

Course Description

A general course in biology which provides a broad understanding of the basic principles of biological science such as cells, energy production, photosynthesis, genetics, plant and animal physiology, ecology, environmental issues, and diversity. Upon completion, students will understand the relationship between living organisms and their environment and make more informed decisions regarding issues facing our society. Must co-register in Bio 04-103.

Student Learning Outcomes

Assessment methods

<i>Northwest Core Competencies</i> Critical Thinking Assimilate, retain, and interpret information	Written exam questions
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Instructional Methods

Course instruction consists of lecture and video presentations, an ungraded take-home problem set, and extra-credit surveys.

This section of *General Biology* will be taught in the “alternate asynchronous” mode. This means that half the class will attend lectures on Tuesdays (the “T Group”), and the other half will attend on Thursdays (the “R Group”). Students in the group that is *not* scheduled to attend on a given day are expected to watch the live Zoom feed or the Recorded Lectures, which will be posted online and available to all students. Course exams and films will be online.

Graded Course Requirements

Five exams will be given during the course. None of the first four exams are comprehensive, but each includes 50 multiple-choice questions on lecture material. The fifth exam is taken immediately after the fourth exam, and is comprised of 40 multiple-choice questions that focus on students' ability to apply knowledge.

For make-up exams, students must contact the instructor within 24 hours of the scheduled exam. Make-up exams are given only to students with official excuses (from dean, doctor, or coach), and must normally be taken within two days of the scheduled exam.

Extra credit may be awarded for attendance and for participation in online surveys.

First exam	50 questions, 2 points each	100 points	21.8% of course grade
Second exam	50 questions, 2 points each	100 points	21.8% of course grade
Third exam	50 questions, 2 points each	100 points	21.8% of course grade
Fourth exam	50 questions, 2 points each	100 points	21.8% of course grade
Fifth exam	40 questions, 1 point each	40 points	8.7% of course grade
Attendance	9 days, 2 points each	18 points	3.9% of course grade
Bonus attendance	2 days, 2 points each		extra credit
Optional Surveys	3 surveys, 22 points total		extra credit
Total		458 points	

Grading Scale

A	90%	412 points
B	80%	366 points
C	70%	320 points
D	60%	274 points
F	< 60%	< 274 points

Course Schedule

Date	Day	Anticipated Topic	Chapter	Survey
1/14	R	DESCRIBING LIFE: Characteristics, Sorting	1	
1/19	T	CELLS: Membranes, Enzymes, Organelles	3	
1/21	R	LIFE CHEMISTRY: Elements, Molecules, Bonds, Water	2	
1/26	T	Organic molecules; <i>Online films: Molecular Building Blocks of Life 1 & 2</i>		
1/28	R	ENERGY: Energy molecules, Respiration 1	4	
2/02	T	Respiration 2; <i>Online films: Molecular Building Blocks of Life 4</i>		
2/04	R	* EXAM 1 online 9:30 – 10:20 am * * * * *		
2/09	T	CHROMOSOMES: Structure, Protein synthesis 1	6	
2/11	R	Protein synthesis 2, <i>Online film: Molecular Building Blocks of Life 6</i>		
2/16	T	Cell cycle, Meiosis		
2/18	R	MENDELIAN GENETICS: Mendel, Terms, Symbols, Crosses 1	5	1
2/23	T	Crosses 2		1
2/25	R	<i>Genetics problems</i> (ungraded take-home exercise)		1
3/02	T	* EXAM 2 online 9:30 – 10:20 am * * * * *		
3/04	R	POPULATIONS: Population genetics, Natural selection	7	2
3/09	T	Evolution, Ecology		2
3/11	R	ANIMAL BIOLOGY: Reproduction, Development	10	2

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3/16	T	Digestion, Excretion	11	2
3/18	R	Nerves, Muscles, Respiration		2
3/23	T	Circulation, Hormones		3
3/25	R	Immunity, Cancer		3
3/30	T	Human health		3
4/01	R	* EXAM 3 online 9:30 – 10:20 am * * * * *		3
4/06	T	PLANT BIOLOGY: Reproduction, Pollination, Hormones	9	
4/08	R	Anatomy, Photosynthesis		
4/13	T	DIVERSITY: Viruses, Bacteria, Archaea, Protista, Fungi	8	
4/15	R	Plantae, Animalia		
4/20	T	ENVIRONMENTAL BIOLOGY: Air, Water, Waste, Energy		
4/22	R	Population, Future	12	
4/27		Preparation Week (no class)		
4/29		Preparation Week (no class)		

5/06	R	* EXAM 4 and EXAM 5 online 2:00 – 4:00 pm * * * * *		
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Disclaimer

The course schedule may change due to unexpected events. Students will be notified by the instructor and are expected to abide by any such changes.

Attendance

Students are expected to attend all classes as specified in the course syllabi for each course. Attendance will be taken during lecture (not exams) on each of the last 11 Tuesdays and the last 11 Thursdays, as highlighted in the schedule above. Each day of attendance is worth two points. Attendance may be taken at any time during the class period, and even multiple times in the same class period; students must be present at each attendance check in order to receive credit. Students with a excused absences (that is, a note from a dean, doctor, or coach) will be credited as if present.

Note that 18 attendance points are expected in the course total; additional attendance points constitute extra credit.

It is the responsibility of the student to promptly notify his or her instructor when unable to attend class. Please refer to the University Attendance policy at <https://www.nwmissouri.edu/policies/academics/Attendance.pdf>.

Final Exam

Students who do not take the final exam at the scheduled time will be assigned a score of 0, unless they have scheduled an alternate time for the exam. Students may reschedule their final exam time only with a valid excuse, or if they have at least three final exams scheduled for that day. In these cases, the student and instructor must agree on an alternate time for the exam, and the student must file a *Petition to Reschedule a Final Exam* by noon on the Friday before finals week.

Should an emergency occur that prevents the administration of a the scheduled final examination, the final course grades will be calculated based on the work in the course completed to that point in time and the faculty member's considered judgment. Should the University cancel the final exam, it will not be rescheduled and a grade of "I" will not be given.

Administrative Drop

An instructor may request that the Office of the Registrar delete a student from a course roster if the student has not met the prerequisite for the course as stated in the catalog, or if the student has not attended the course.

Academic Administrative Withdrawal

When it is in the best interest of Northwest Missouri State University for a student to withdraw, a student will be given a “W,” put on administrative hold, and given notice that they are about to be withdrawn. This action will result in removal of all credits associated with courses that have yet to be completed in the semester in question, and the student will be administratively withdrawn from the University. An Administrative Withdrawal does not affect the student’s grade point average. Please refer to Northwest Missouri State University’s Academic Administrative Withdrawal Policy at <https://www.nwmissouri.edu/policies/academics/Adding-Dropping-Withdrawals.pdf>

University Communications

Students are expected to use their Northwest student email account for all electronic correspondence within the university. Students are strongly advised to check their email at least once a day.

Academic Integrity Policy

The students, faculty, and staff at Northwest endeavor to sustain an environment that values honesty in academic work, that acknowledges the authorized aid provided by and intellectual contributions of others, and that enables equitable student evaluation. Students must exhibit academic integrity, including the eight common components:

- (1) knowingly obtaining unauthorized aid or information;
- (2) knowingly giving unauthorized aid or information;
- (3) committing plagiarism from written, electronic, or internet sources, including from other students;
- (4) misrepresenting facts or data;
- (5) offering bribes;
- (6) using library resources unethically;
- (7) using computer resources unethically; and
- (8) knowingly assisting in any of the above practices.

Violations of this Policy may result in penalties that include a grade of “F” in the course and/or a report to the appropriate academic official. Students may appeal a charge of Academic Dishonesty. The *Academic Integrity Policy* is located at <https://www.nwmissouri.edu/policies/academics/Academic-Integrity.pdf>.

Learning or Living Accommodations Request Process

Northwest Missouri State University complies with Section 504 of the *Rehabilitation Act of 1973*, the *Americans with Disabilities Act of 1990* [ADA], and the *ADA Amendments Act of 2008* [ADAAA]. If a student has a documented disability that qualifies under the ADA/ADAAA and requests accommodations, they should review the Accessibility and Accommodations webpage at <https://www.nwmissouri.edu/titleixequity/accessibility/index.htm> for guidance, including the accommodations application and supportign documentation requirements. Contact ADA@nwmissouri.edu or 660.562.1873 for further assistance. For the university policy on disability accommodation, refer to <http://www.nwmissouri.edu/policies/student/Disability-Accommodation.pdf>.

Non-Discrimination and Anti-Harassment Policy

Northwest Missouri State University is committed to maintaining an environment for all faculty, staff, students, and third parties that is free of illegal discrimination and harassment. Please refer to the *Non-Discrimination and Anti-Harassment Policy* at <http://www.nwmissouri.edu/diversity/titlevi.htm>.

Family Educational Rights and Privacy Act (FERPA) Policy

The *Family Educational Rights and Privacy Act of 1974*, as amended (commonly known as the Buckley Amendment), is a federal law which provides that colleges and universities will maintain the confidentiality of

student education records. Please refer to the *Family Educational Rights and Privacy Act (FERPA) Policy* at <http://www.nwmissouri.edu/policies/academics/Family-Educational-Rights-and-Privacy-Act.pdf>.

COVID-19 Classroom Mitigation

Northwest is committed to the health and safety of the University community and has therefore adopted COVID-19 mitigation policies. Every student must wear a face covering (such as a cloth face covering, bandana, scarf, neck gaiter, or medical mask) over their nose and mouth at all times in all academic building spaces, including classrooms (unless directed not to by the instructor), offices, hallways, and restrooms. Face shields may be worn in addition to, but not in place of, a face covering.

Students without face coverings will not be allowed in the classroom until they comply with expectations. Students must also follow directions regarding entries, exits, and furniture, and maintain at least 6 feet of social distancing whenever possible. Northwest further asks all students to practice good hygiene and not enter academic buildings or attend face-to-face classes when they feel sick or have been instructed to quarantine/isolate; students who miss class should communicate with their instructors.

Students who do not comply with these requirements will be subject to standard disciplinary procedures according to the *Northwest Student Code of Conduct* (i.e. verbal and written warnings followed by a hearing, if necessary). We thank you for doing your part to maintain our learning environment and to protect the health of fellow Bearcats.

Change in Course Delivery

It is our goal as a University to continue all courses as planned on campus. However, due to unforeseeable impacts of COVID-19, faculty and students must be prepared to move all courses to a remote/online learning format anytime during the semester, either permanently or for a short term. The type of format (synchronous or asynchronous) will be at the discretion of each faculty member. The University and faculty will communicate with students in the event such action is deemed necessary to preserve the health and safety of students and employees.

Other Important Information

Office hours will be held in person and with a simultaneous online Zoom link. Details will be announced to the class.

This course is not taught at the high school level. Students are expected to attend lecture and to understand textbook terminology in advance. I strive to provide clear, concise lectures and fair tests, but the student is largely responsible for his/her performance. Biology is a complex subject, so I strongly recommend at least three hours per week studying the lecture notes *in addition to* time spent reading.

Course materials (such as the course syllabus, basic lecture outlines, diagrams, surveys, sample exams, etc.) may be provided online only. Consequently, students are strongly encouraged to become familiar with our Northwest Online pages (see the *Resources* tab on the Northwest home page) and with *Respondus Lockdown Browser*.

I will attempt to record audio and video for each lecture. As always, students are responsible for completing their notes; the instructor's full set of notes will not be distributed.

Grades will be posted on our Northwest Online website as soon as is practical, and will include any curve to the grades. Once posted, an announcement will be emailed to all students at their Northwest email.

Please be respectful of other students. Minimize distracting behavior, such as talking, using cell phones (please set to 'vibrate'), and listening to music (even using earbuds). These can be surprisingly disruptive to fellow students and to the professor. Disruptive students will be asked to leave and will not receive points for attendance that day.