

BIOLOGY 120-45: GENERAL BIOLOGY 1
FALL 2018

INSTRUCTOR: Jennifer Cymbola

OFFICE: KHS 2290J

OFFICE HOURS: T/R 1-2 pm (Other times available by appointment)

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REQUIRED LECTURE MATERIAL:

- Campbell Biology, 11th edition, by J.B. Reece, L.A. Urry, M.L. Cain, S.A. Wasserman, P.V. Minorsky, and R.B. Jackson. Pearson/Benjamin Cummings Publishers, 2016.
- Pearson's *MasteringBiology* for Campbell Biology, 11th ed, Urry, Cain, Wasserman, Minorsky, and Reece. Please register your account in Blackboard before the first day of class. An access code may be included in your textbook purchase – check there before purchasing a separate subscription!
- Subscription to tophat.com (join code: 439849) and an electronic device that is capable submitting answers to Top Hat questions. Answers can be submitted via SMS message, the Top Hat website, or the Top Hat app.
- Pencil and eraser for all exams

COURSE DESCRIPTION: Biology 120 is a comprehensive introductory course. We will focus on understanding the structure and functioning of cells. We will, for example, study cell organelles, enzymes, cell metabolism, and cell division. We will also examine inheritance by studying genetics, reproduction, and animal development.

LEARNING OBJECTIVES:

Throughout this course, students will become prepared for subsequent coursework in the biological sciences by gaining a conceptual framework into which more advanced studies can fit. After successful completion of the course, students will be able to:

1. Explain the principles of cell biology, heredity, and development
2. Explain the systems concept in biology
3. Analyze experimental data
4. Report on experimental data
5. Demonstrate selected laboratory techniques

CLASS POLICIES: This course is subject to the GVSU policies listed at <http://www.gvsu.edu/coursepolicies>. Additionally, cell phones should not be used in class outside of when they are being used to submit responses to Top Hat. This includes text messaging. You may have them on vibrate or turned off. Please be respectful of your instructor and classmates. Arrive to class on time, do not leave early, do not listen to music during class or talk excessively to your neighbor during class, etc. If you need to leave class for any reason (to take an expected phone call, doctors apt, etc), you may do so, but please do so as quietly and quickly as possible so as not to disrupt class. You may not leave the room during an exam period until after you hand in your exam. Laptops may be used for academic purposes related to Bio 120 only.

ATTENDANCE: Class attendance is expected and will greatly support your success in this class. Because exams are based mostly on material covered only during class time, it is to your advantage to attend. Also, we will be engaging in discussions, activities and demonstrations, and watching videos that you will only get the chance to see if you are in class. If you have to miss class, it is your responsibility to obtain notes, handouts, and assignments. Please note that obtaining notes from a classmate will not substitute a missed lecture in terms of learning the material. **Please see the exam policies below regarding missing class on exam days.**

EXAM POLICIES: Phones should be placed face down on your desk during quizzes and exams. Exams will only be given at the scheduled time. Make-up exams will ONLY be given under extenuating circumstances, and only when I am notified PRIOR to the scheduled exam time. If you feel you have a legitimate excuse and will be missing an exam, you MUST notify me BEFORE the exam to request a make-up exam. You may be asked to provide documentation of your absence. Make-up exams must be taken within 48 hours of returning to school. Exam grades will not be dropped.

EXAMS: Exams may consist of true/false, multiple choice, fill-in, and/or short answer questions. Only a writing utensil may be used on exams (no notes, books, etc.). Questions appearing on the exam will come from material covered during lecture, assigned readings, assignments, and in-class discussion.

READINGS: Before coming to class, you should read the designated chapters from the textbook as well as any other readings each week. In-class discussion and activities will require you to have completed this reading in order to participate.

ASSIGNMENTS: If you are absent on the day a homework assignment is given, you can get the assignment by using your Blackboard account for this course, under “Assignments”. You must turn your assignment in to me at the beginning of class on the day the assignment is due. If you are unable to meet this deadline, you will be allowed a **48 hour** extension period, during which you may turn in your late assignment. You are only allowed **ONE** extension during the course of the semester. You may **NOT** use this extension on extra credit, MasteringBiology, or Top Hat materials. All subsequent late assignments will not be counted. Assignments turned in outside of class must be turned in to me personally. Assignments left in my office will not be accepted. **Quizzes and in-class assignments cannot be made up without documentation of extenuating circumstances.**

Top Hat: We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. Additional information about using Top Hat is posted on Blackboard.

Top Hat will assess both participation and correctness for each question asked during class, and these scores will be incorporated into your final grade. Participating is defined as answering the question when it is asked, regardless of correctness, and participating when electronic attendance is taken. Questions are also recorded as correct or incorrect. Scores for participation and correctness are calculated using the percent of questions/attendance that you participated in (for participation) or got correct (for assessment) throughout the semester. In order to compensate for technology problems and unavoidable class absences, the threshold for full credit for Top Hat is set at 90%. In other words, if you participate in 90% of the question/attendance polls throughout the semester, you will earn all 5 participation points, and if you answer 90% of the questions asked throughout the semester correctly, you will earn all 25 assessment points. **As Top Hat assessments are displayed and answered in real time in the classroom, they cannot be made up.**

MasteringBiology: We will be using the MasteringBiology online platform to complete graded assignments for each unit, and these will account for 30 points of your assignment scores for the semester. These assignments must be completed before the due date set in the system online (generally the end of each unit). Don’t wait until the last minute to start the activities! In addition to formal assignments, MasteringBiology includes practice quizzes, animations, videos, and an electronic version of the textbook. Use these supplements to help you study!

LABORATORY: Everyone must be registered in a laboratory section. Laboratories are designed to introduce you to the scientific process, to introduce you to techniques commonly used in biology, and to allow you to actively participate in your learning. Laboratory is important because so much of biology (whether you’re interested in medicine, microbiology, ecology, animal behavior, etc.) involves hands-on research. We want you to experience the excitement of performing research in the laboratory. For these reasons, we make laboratory attendance mandatory. Your laboratory instructor will explain the process of requesting a make-up lab (if you must miss a lab for an excusable reason), but it is your responsibility to make the arrangements with both your own lab instructor and the instructor of the make-up lab.

You must get a passing grade in the lab section to pass this course. Each lab instructor will set the grading scale and evaluation methods for his or her section. At the end of the semester, your lab instructor will provide me with a lab grade that will account for 25% of your total grade in this class. NOTE: Lab instructors will have a separate syllabus with separate rules and guidelines.

GRADING:	EXAM I	45 pts	Final Grade:	A = 93-100%
	EXAM II	45 pts		A- = 90-92%
	EXAM III	45 pts		B+ = 87-89%
	FINAL EXAM	60 pts		B = 83-86%
	QUIZZES	30 pts		B- = 80-82%
	TOP HAT PARTICIPATION	5 pts		C+ = 77-79%
	TOP HAT ASSESSMENT	25 pts		C = 73-76%
	Mastering Biology ASSIGNMENTS	30 pts		C- = 70-72%
	GENETICS ASSIGNMENT	15 pts		D+ = 67-69%
	LECTURE TOTAL	300 pts		D = 60-66%
	LAB TOTAL	100 pts		F = 0-59%
	TOTAL POINTS	400 pts		

PLAGIARISM: Any assignment that involves referencing a website or other source must include a reference for the source both in-text and at the end of the paper. Copying from the source word-for-word is plagiarism and will result in an F for the course. Assignments that contain paragraphs or excessive quoting copied from another source (even if they are referenced) are unacceptable. In addition, sentences or paragraphs that are copied from a source and then “modified” are also considered plagiarism. You must read your sources and then articulate your ideas from scratch in your own words. Plagiarized assignments will receive a ZERO grade for the assignment. Please see section 223.01 of the Grand Valley State University Student Code for more information on plagiarism..

CITATIONS: Any reference cited (quoted directly or summarized indirectly) must provide a proper IN-TEXT citation including the name of the author and the year. Ex: According to Marshall et al. 2004, the average American consumes three 12oz. soda every day. Or, another example: “One in five college women are considered anorexic” (Belk & Borden, 2006). The same applies for web information. Try to find an author, if it is not possible, make sure you have a reputable web site and give the web address. Ex: (<http://www.americanheart.org>). Don’t forget to include a reference section at the end of the paper with the whole reference information (refer to library site).

RESOURCES:

Students requiring assistance: If there is any student in this class who has special needs because of learning, physical or other disability, please contact your instructor or Disability Support Resources (DSR) at 616.331.2490. Furthermore, if you have a disability and think you will need assistance evacuating this classroom and/or building in an emergency situation, please make your instructor aware so a plan can be developed to assist you.

Fire emergencies: Fire: Immediately proceed to the nearest exit during a fire alarm. Do not use elevators. More information is available on the University’s Emergency website located at <http://www.gvsu.edu/emergency>

Blackboard: There is a blackboard site for this class. You may access it at mybb.gvsu.edu. Your username and password are the same as your GVSU network login. I expect you to check blackboard regularly for announcements, lecture information, test review information, etc.

Science walk-in tutoring: Science walk-in tutoring for biology is available on the second floor of Kleiner or the second floor of KHS. Check <https://www.gvsu.edu/tc/> for more information.

TENTATIVE LECTURE SCHEDULE: Please note that this schedule may change as we progress through lecture topics. Please check for changes on Blackboard regularly!

Week	Day	Topic	Readings*
8/27	M W	Introduction to the course; Properties of life Scientific process; Cell structures	Chapter 1 Chapter 1,6
9/3	M W	LABOR DAY RECESS - NO CLASSES Cell structures; Chemistry of life	Chapter 6, 2
9/10	M W	Quiz 1 Followed by Water; Carbon Macromolecules	Chapter 3, 4 Chapter 5
9/17	M W	Macromolecules Test 1 (Chapters 1-6)	Chapter 5
9/24	M W	Biological membranes Energy and Metabolism	Chapter 7 Chapter 8
10/1	M W	Energy and Metabolism; Photosynthesis Photosynthesis	Chapter 8, 10 Chapter 10
10/8	M W	Photosynthesis Quiz 2 Followed by Cellular Respiration	Chapter 10 Chapter 9
10/15	M W	Cellular Respiration Test 2 (Chapter 7-10)	Chapter 9
10/22	M W	Cell cycle, mitosis, and cancer Meiosis and sexual life cycles	Chapter 12 Chapter 13
		*** DROP DEADLINE 10/26 ***	
10/29	M W	Principles of inheritance Quiz 3 Followed by Principles of inheritance	Chapter 14 Chapter 14
11/5	M W	Chromosomes and genes Chromosomes and genes	Chapter 15 Chapter 15
11/12	M W	Test 3 (Chapters 12-15) DNA structure and replication	Chapter 16
11/19	M W	Transcription and translation THANKSGIVING BREAK – NO CLASSES	Chapter 17
11/26	M W	Gene expression Biotechnology	Chapter 18 Chapter 20
12/3	M W	Animal Reproduction Development	Chapter 46 Chapter 47
12/11	T	FINAL EXAM – TUESDAY, 12/11, 2-3:50 PM	

*Readings are from *Campbell Biology* textbook (Reece, et al., 2016)

