

**Biol. 102****General Biology II****Spring 2019**

Professor: Dr. Tonya McKinley

Office: S-201B Telephone: 304-384-5219 (Dept. 304-384-5327)

E-mail: NA Fax: 304-384-6225 Dept. Website: <https://www.concord.edu/biology/>

Office Hours: M-F 11:00-12:00 pm; By Appointment

Class Meetings: Lecture Section 1 M, W, F 10:00-10:50 am Science Bld. 300

CRN 20004 4 Credits

Laboratory Section 1A W 1:00-2:50 am Science Bld. 203

CRN 20005 0 Credits

Inclement Weather Schedule: Lecture Section 1 M, W, F 11:30-12:10 pm

Laboratory Section 1A 1:45-3:10 pm

The Inclement Weather Schedule for lab has been set by the Division of Natural Sciences and can differ from the University Inclement Weather Schedule.

Prerequisites: None

Text: Peter Raven, George Johnson, Kenneth Mason, Jonathan Losos, and Susan Singer. **Biology**. 10<sup>th</sup> ed., McGraw Hill Publishing Co., 2014. ISBN 978-0-07-338307-1.

Laboratory Manuals: Chambers, Creer, Ford, McKinley and Wise. Photocopied Biology 102 Lab Manual on sale in the bookstore.

Perry, James W and David Morton. **Photo Atlas for Biology**, Wadsworth Pub. Co., 1996.

This syllabus is subject to modification although every effort will be made to adhere to the defined schedule. Additional reading assignments may be given as announced in class. Changes to the syllabus or course schedule may be announced verbally in class at any time. You are responsible for such changes even if not in attendance.

Concord University Mission Statement: <http://www.concord.edu/academics>

Course Description: Cell division; Mendelian inheritance patterns; human genetics; information flow (replication, transcription, translation) within cells; biotechnology with legal and ethical implications; evolution; taxonomy of organisms; ecology.

Course Objectives: Develop a basic understanding and comprehension of cell division, gamete formation and inheritance patterns.

Describe the basic structure of DNA. Recognize the role of molecular biology in societal applications.

Discuss the basic theories of the origin of life.  
Describe the role of evolution in the history and diversity of life.  
Explain the impacts of humans and other animals on the environment.

CU Educational Goals: Skills 4, Knowledge 2 & 5

Course Enrollment: You must be enrolled in this course in order to attend lectures, labs and to take exams. If you do not enroll by the first full week of classes, or if you are dropped from the roll sheet by Registrar or Business office, it is your responsibility to re-enroll. Classes missed for being dropped from the roll sheet are considered unexcused. If you miss exams for the above reasons you will not be eligible for a make up exam and your grade for the exam missed will be a 0.

Class Attendance and Participation: Class attendance in both lecture and lab is mandatory. Students are expected to arrive on time and to have read the assigned material in advance of the lecture or laboratory session in which it is scheduled. Attendance and active participation in class and lab will be worth 1 pt. on your final grade. **Students who are late to class (lecture or lab) more than 3 times will not receive their attendance point. Students with more than 3 unexcused lectures or more than 1 unexcused lab will not receive their attendance point.** Excessive class absences will not be tolerated and will be handled according to the guidelines of the Concord University Academic Catalog (you may be IW from the class). **No late work or electronic submissions will be accepted!**

Examinations: Examination questions will be of various formats (multiple choice, fill-in-the blanks, labeling diagrams, short answer, etc.). Exams may be given on the margins of breaks. It is your responsibility to be present to take these exams. Your public and private transportation issues are not my problem.

Lecture exams are designed to fit into a 50 min. class period. This includes the final exam, which is not comprehensive and is just the 5<sup>th</sup> lecture exam. If you arrive slightly late to a lecture exam, including the final exam, and your classmates are still taking the exam you will have what is left of the 50 min. class period to take your exam. If you arrive very late to a lecture exam, including the final exam, and all your classmates have turned in their exams then you have missed the exam and your grade will be a 0.

Lab exams are 25 questions. Lab exams are timed you will have 30 seconds per question. You will go through the entire exam once and will not be able to go back to have a second look at a question. If you arrive slightly late to a lab exam the instructor will allow you to take the entire exam, however your classmate will remain in the room moving through the stations as instructed. If you arrive very late to a lab exam, and all your classmates have turned in their exams then you have missed the exam and your

grade will be a 0. Students who do not adhere to the posted rules of proper lab attire will not be allowed to take the lab exam and their grade for that exam will be a 0.

Extra Credit: Two short papers will be assigned during this course. These papers are optional and they are each worth ½ pt. on your final grade. **No late work or electronic submissions will be accepted!** All papers are to be typed or word processed and must be double spaced. You must have a minimum of 3 references. One of these may be your textbook. You may use only 1 internet source. Your sources must have the author's or editor's name and a year. If it does not have this important information find another source. Make sure that you cite the referenced material in the text. Papers must have a title page.

Examples of text citation formats are:

One Author: In this report no germination was seen until the dialysis tubing was slit and contact allowed (Clements, 1988).

Two Authors: However, the material required to stimulate growth may have been too large to pass through the dialysis tubing (Stoessl and Arditti, 1984).

Three or More Authors: Sexual reproduction has been induced in *Rhizoctonia* by varying culturing conditions (Clements et. al., 1986).

Your bibliography must be alphabetized by author's last name. Examples of bibliography formats are:

Magazine With One Author: Clements, M.A. 1988. Orchid Mycorrhizal Associations. Scientific American. Vol. 3: pgs. 73-86.

Magazine With More than One Author: Clements, M.A., H. Muir and P.J. Cribb. 1986. A Preliminary Report on the Symbiotic Germination of Orchids. Journal of the American Orchid Society. Vol. 48: pgs. 810-816.

Book: Britton, N.L and H.A. Brown. 1970. An Illustrated Flora of the Northern United States. Dover Publications Inc. New York. pgs. 3-23.

Internet: Stoessl, A. 2000. An Interactive Guide to Growing Orchids. [www.orchidguide.com](http://www.orchidguide.com). pgs. 1-2.

Final Grade Determination:

Average of 5 Lecture Exams (50 questions each) X 0.75 = Y

Average of 3 Laboratory Exams (25 questions each) X 0.25 = Z

Y + Z = G (Final Grade %)

Add on any Extra Credit and Attendance Points (2 pts. Maximum)

Grade Scale:

A . . . . 90-100    B . . . . 80-89    C . . . . 70-79    D . . . . 60-69    F . . . . <60

Make-up Exams: The instructor has final say in determining whether you qualify for a make up exam. Exams may be given on the margins of breaks. It is your responsibility to be present to take these exams. Your public and private transportation issues are not my problem. Oversleeping, forgetting the time and date of your exam, losing track

of time because you were studying in the library etc. are not considered valid excuses for missing an exam.

Make-up exams will be administered only if the scheduled exam is missed due to:

Participation in an approved Concord University sponsored activity (athletic trip, academic meeting). **It is your responsibility as the student to provide a paper copy of the approval form that has been signed by the VPAD office. I must have written notice 5 days prior to the event and you must take the exam before you leave or you will receive a 0.**

Illness (if **you** are sick and have a written Doctor's excuse), hospitalization or some serious reason (family emergency or death of an immediate family member). **You must take the make up exam within 48 hrs. after you return to school or you will receive a 0.**

**All make up exam times will be determined by the instructor and may begin as early as 7:15 am. No Exceptions!**

Lab make up exams will be 10 questions.

Accommodations for Students with Disabilities: Students needing special accommodations due to disabilities should contact Disabilities Services by phone (ext. 6086) or e-mail nellison@concord.edu. Written notification of a request for accommodations, from the above agency, needs to be received by me before the end of the first full week of classes. No accommodations will be given without written notification. If a problem occurs part way through the semester, written notification from the above agency needs to be received before any action can be taken. No retroactive measures will be taken to adjust test scores due to lack of documentation.

CU Honor Code: All aspects of the Concord University code of Academic Honesty are in effect for this course.

A Concord University Honor Code was approved by students, staff, faculty, administration, and the CU Board of Governors. The Code states:  
"As a member of the Concord University Community I will act with honesty and integrity in accordance with our fundamental principles and I will respect myself and others while challenging them to do the same."

The Honor Code is intended to unite the Concord community behind a culture of honesty, integrity, and civility.

Academic Dishonesty: Academic dishonesty is morally unacceptable as well as destructive to the learning and teaching atmosphere. Academic dishonesty includes the giving or receiving of improper help on examinations or assignments, falsifying documents, and plagiarism (the act of stealing and using, as one's own, the ideas or the expression of the ideas of another). Such dishonesty can lead to a variety of penalties. Students who violate this code (by cheating on examinations, plagiarism,

etc.) will receive a failing grade of 0 for that exam or paper and will be reported to the Department/Division Chairs. The instructor may take further disciplinary action resulting in failure of the course and/or expulsion from the University may occur. See CU Student Handbook for further information and University Catalog Academic Policies and Procedures.

**Auditing:** Students who wish to change their status from grade to audit must see me before the first exam (lecture or lab) to obtain my permission. No student may change their status to audit, in this course, after the first exam (lecture or lab) is given. Approval for changing to audit requires extenuating circumstances. Audit cannot be used to avoid a poor or failing grade (D or F). See University Catalog Academic Policies and Procedures.

**Use of Electronic Devices in the Classroom & Laboratory:** Cell Phones and Pagers must be turned off. These types of devices that ring or play music during lecture constitute a classroom disruption. Students who habitually forget to turn off their cell phones and pagers will be IW from the class see the Concord University Academic Catalog. Texting is not permitted under any circumstances. The use of tape recorders to record lecture is permissible. Computers may be used to take notes (IM, net surfing, games etc. during lecture will not be tolerated). **No electronic devices, including internet compatible watches, will be permitted during testing situations! No electronic devices, including internet compatible watches, will be allowed out when exams are returned!** Students who have electronic devices out during a test or when test are returned will be IW from the class.

**Lab Rules and Dress Code:** There will be no food or drink in lab at any time. You must adhere to proper lab dress code in order to attend lab, take lab exams and to review lab material. Shoes must be worn. Shoes must have closed toes (no crocks, flip-flops, or sandals) and they must cover your heel (closed heel). Shorts and skirts must come to the knees (bare legs above the knee are not allowed). Missing a lab exam for improper dress will result in a grade of 0 for that exam.

**Classroom Conduct:** Disruptive and unsafe class behavior will not be tolerated and will be handled according to the guidelines of the Concord University Academic Catalog (you may be IW from the class). Habitual lateness is a classroom disruption. Students who are habitually late will find themselves locked out of the classroom and/or may be IW from class.

<b>Lecture Schedule</b>		
<b>Date</b>	<b>Topic</b>	<b>Chapter</b>
Jan. 14 M	Introductory Remarks/Mitosis	10
16 W	Mitosis	10
18 F	Mitosis	10

21 M	<b>Martin Luther King Day, No classes</b>	
23 W	Meiosis	11, Figs. 52.11, 52.18
25 F	Meiosis	11
28 M	Medelian Genetics	12
30 W	Medelian Genetics	12
Feb. 1 F	Medelian Genetics	12, pg. 407-408
4 M	Human Genetics	13
6 W	Human Genetics	13
8 F	Human Genetics	13
11 M	<b>Exam 1</b>	
13 W	DNA Structure and Function	14
15 F	DNA Structure and Function	14
18 M	Transcription and Translation	15
20 W	Transcription and Translation	15
22 F	Transcription and Translation	15, Section 16.1
25 M	Biotechnology & Genetic Engineering	17, Section 27.3

**Extra Credit** Due 3/4 In a 2-3 pg. paper discuss one of the ways in which biotechnology or recombinant DNA technology has revolutionized agriculture, forensics, medicine or the battle against environmental pollution.

27 W	<b>Exam 2</b>	
1 F	Origin & Evolution of Life	26, Section 1.1
Mar. 4 M	Origin & Evolution of Life	26
6 W	Plate Tectonics & Geologic History	26, Section 21.4
8 F	Taxonomy & Classification	26
11 M	<b>Spring Break, No Classes</b>	
13 W	<b>Spring Break, No Classes</b>	
15 F	<b>Spring Break, No Classes</b>	
18 M	Viruses and Bacteria	27, 28, Sections 1.1, 4.2, 4.3
20 W	Protistans	29, Sections 4.2-4.3
22 F	Seedless Plants	30
25 M	Seed Plants	31, Sec. 41.3-41.4
27 W	Seed Plants	31, pgs. 742, 746, 749-750
29 F	Fungi	32
Apr. 1 M	<b>Exam 3</b>	
3 W	Kingdom Anamalia	33, Sections 1.1, 11.1, pgs.519-520, Sec. 53.1- 53.4, 47.1, 46.1, 49.2
5 F	Invertebrates	33
8 M	Invertebrates	34
10 W	Vertebrates	35
12 F	Vertebrates	35

Date	Topic	Chapter
15 M	Vertebrates	35, pgs. 933
17 W	<b>Exam 4</b>	
19 F	Communities	Section 55.1

**Extra Credit** Due 4/26 Humans have a negative impact on the environment in many ways: over population, ozone depletion, pollution of air, soil and water, increasing amounts of solid waste (garbage) and disposal of toxic chemicals. In a 2-3 pg. paper discuss **one** of the negative ways humans impact the environment and examples of how we can reduce or prevent the problem.

22 M	Communities	56
24 W	Communities	56
26 F	Ecosystem	57
29 M	Ecosystem	57
May 1 W	Biosphere	58
3 F	Biosphere	59
10 F	<b>Exam 5</b> (Final Exam 9:00 am-9:50 am)	

### Laboratory Schedule Spring 2019

Jan. 16	General Education Assessment and Pre-lab Rules and Safety	
Jan. 23	Lab I	Mitosis/Read Using the Microscope & label picture
Jan. 30	Lab II	Meiosis
Feb. 6	Lab III	Genetics
Feb. 13	<b>First Laboratory Practical Exam*</b>	
Feb. 20	Lab IV	Protein Synthesis
Feb. 27	Lab V	Movie Race for the Double Helix
Mar. 6	Lab VI	Systematics & Taxonomy
Mar. 13	<b>No Lab Spring Break</b>	
Mar. 20	Lab VII	3 Domains (Bacteria/Protists)
Mar. 27	<b>Second Laboratory Practical Exam*</b>	
Apr. 3	Lab VIII	Plants
Apr. 10	Lab IX	Fungi/Animals I
Apr. 17	Lab X	Animals II
Apr. 24	Lab XI	Ecology, General Education Assessment
May 1	<b>Third Laboratory Practical Exam*</b>	

\* The laboratory will be unlocked each morning at 8:00 am and closed and locked at 4 pm or after the last late lab. The lab is open all day Monday (8 am-4 pm) and Friday (Noon-4 pm) for you to review. **No student may review material**

**after hours!** During lab exam weeks the laboratory will close on Mondays at 4 pm and remain locked until all lab exams have been. Please review prior to this.

#### Inclement Weather Policy

As a general policy, the University will remain in normal operations during adverse weather conditions. In the event of severe weather conditions, the following may occur:

#### University Closure

No students or employees are to report.

#### Classes Cancelled

Students do NOT report BUT employees are expected to report to work at their normal time.

#### Operating on an Inclement weather Delay

Under this schedule, all 8 a.m. classes will start at 10 a.m. Students and faculty will follow the Inclement Weather Schedule. (See <http://www.concord.edu/emergency-alerts> for Athens/Beckley Inclement Weather Schedules.)

\*Announcements invoking the late schedule or other options referenced above are aired on area radio and television stations and are sent as text and email messages to those enrolled for this service.

**Emergency Alert System:** In an effort to increase safety and security on our campus, Concord University encourages everyone to register for instant text message alerts. Alerts will only be used for security and safety notices. All students, faculty, and staff are eligible to receive text message alerts on their cell phones or email alerts. Please contact the IT Help Desk for further assistance (304-384-5291). See CU Student Handbook for further information and <http://www.concord.edu/emergency-alerts>

**Emergency Information:** Emergency/courtesy telephones are located at the main entrance of each residence hall and at various other locations on campus. Emergency telephones can be identified by the flashing blue light and will provide the user with a direct link to Public Safety at the press of a button. To report an on-campus emergency, call 304-384-5357 or 911. The Office of Public Safety is located on the bottom floor of the Rahall Technology Center. See CU Student Handbook for further information and <http://www.concord.edu/administration/office-public-safety>

**Sexual Harassment & Assault.** Federal law, Title IX, and Concord University policy prohibits discrimination, harassment, and violence based on sex and gender (Including sexual harassment, sexual assault, domestic/dating violence, stalking, sexual exploitation, and retaliation). If you or someone you know has been harassed or assaulted, you can receive confidential counseling support through



the Concord University Counseling Center (304-384-5290). Alleged Violations can be reported non-confidentially to the Concord University Title IX Coordinator at 304-384-6327 or [titleix@concord.edu](mailto:titleix@concord.edu). Reports to Campus Security can be made at (304-384-5357).

Hardware/Software Needed: NA

Technology Services: Contact the CU Help Desk at extension 5291 from campus or 304-384-5291 off campus. You may also e-mail [cuhelpdesk@concord](mailto:cuhelpdesk@concord)