

Syllabus – BIOL 102 General Biology II



BIOL 102 - General Biology II

**Course CRN - 20006 (Lecture)
20007 (Lab Tues 11am) and 20008 (Lab Tues 1pm)**

Semester Taught: Spring 2018
Credit Hours: 4 Credit Hours
Prerequisites: None (BIOL 101 recommended)
Course Time / Room: Lecture – TR 9:30 – 10:45am (S-309)
Lab – T 11-12:50pm or T 1 – 2:50pm (S-203)

Building and Room Number

Instructor: Tom Ford
Office: Science Hall Rm. 201E
Office Hrs.: MF 12:30 – 2pm; R 11am-12pm; R 1 – 2pm
Phone #: 304-384-5214 or x5214 (on campus)
Email: tford@concord.edu
Moodle: <http://moodle.concord.edu>

Textbooks

Required:

- Raven et al. Biology. 11th Edition, McGraw Hill Publishing Co. 2016. ISBN 978-1259188138
A copy of the textbook is on 2-hr. reserve in the library.
- Ford et al. Biology 102 Laboratory Manual. Concord University.
Available in the CU bookstore.

Course Description

Mitosis, meiosis, protein synthesis, basic genetics, evolution, taxonomy, ecology

Course Objectives

The goal of this course is to familiarize you with many of the basic concepts in biology and to demonstrate how they impact your daily lives.

As a result of this course you should be able to:

1. Understand how issues in biology impact your everyday life.
2. Understand the basic process of mitosis and meiosis.

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3. Understand the basic principles of heredity.
4. Understand the structure of DNA and how DNA controls activities within the cell.
5. Understand issues involving genetic engineering.
6. Explain the relationship between evolution and natural selection.
7. Describe explanations for the origin of life on this planet.
8. Describe the characteristics of organisms in the different kingdoms of life.
9. Understand the basic principles of population biology and ecology.
10. State the consequences of human activity on the ecology of the planet and possible solutions to these problems.

Concord University Educational Goal(s)

Skills: An ability to analyze, synthesize, and integrate elements, information, and ideas. Also, an ability to appropriate observational, logical, analytical, computational, creative, and critical thinking skills within and across academic disciplines; and to apply these skills in problems solving.

Knowledge: An awareness of the fundamental characteristics and properties of the physical universe. A recognition of the complex interactions between organisms, including human beings, and these environments.

National Standards: None

Grades

Your grade for this course will be based on the following assignments.

Lecture and Final Exams: There will be three lecture exams and a comprehensive final exam at the end of the semester. The exam will consist of multiple choice, short answer, and essay questions. Many of the questions will require comprehension of the concepts (e.g. problem solving) covered in class in addition to memorization of terminology.

The lecture and final exams will cover material from lecture and any reading/lecture assignments. One-third to half of the final exam will cover new material since the last lecture exam and the rest will be comprehensive, covering material from all the lecture exams.

Lecture Quizzes: Each week you will be asked to apply concepts covered in class to answer questions on a quiz.

Laboratory Quizzes or Reports: At the end of each lab, you be asked to take an Exit Quiz on the material covered during the lab. These quizzes will typically be 4 or 5 short answer or multiple choice questions. Instead of a quiz, you may be required to write a short report on the laboratory.

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Below you will find a breakdown of the points you can earn.

Breakdown of Total Possible Points

Lecture Exams (3) @ 100 pts each	300 pts
Final Exam	150 pts
Lecture Quizzes (11) @ 5 pts. each	55 pts.
Laboratory Quizzes/Reports @ 10 pts. each	150 pts.

Total Points Possible 710 pts

Final Grade Scale

A	90 – 100%
B	80 – 89.9%
C	70 – 79.9%
D	60 – 69.9%
F	< 60%

Grading Policy : I do not curve lecture or laboratory exam scores. The only circumstance in which I might adjust scores on an exam is if I determine that one or more questions were not presented in a clear and fair manner. If this circumstance occurs, I will add points to everyone's score.

For the final grade, I will total the points earned over the semester and assign a letter grade based on the scale presented above. If you are within 0.5% of a higher letter grade, I will use several factors in determining whether to “bump” you up, including attendance, class participation, and evidence of improvement over the semester.

Attendance and Make-up Policy

Your success in this course will depend heavily on your attendance of both lecture and lab. Please inform me as soon as possible if you anticipate missing lecture or lab.

A documented excuse (from a doctor or university official) must be provided to make-up an exam. The make-up exam must be taken as soon as possible after the original scheduled date. Missed lab quizzes must be made up within a week of the scheduled lab. Habitual unexcused absences from lecture or lab may result in zeroes (0%-F) for assignments associated with those classes missed or penalties (up to 10% of total points) on lab exams.

Classroom Conduct

During lecture, discussion of material and questions are encouraged. However, all class discussions and questions should be directed through me and not your neighbor. Talking with your friends when I'm lecturing, answering questions, or during class discussions is disruptive to people in the area and to me and will not be tolerated. A warning will be given the first time a problem occurs. Subsequent occurrences may result in the offender being dropped from the

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class and would result an F for the course if the action occurs after the final date for withdrawal (see the Academic Policies and Procedures section in the Academic Catalog).

Electronic Devices

Cell phones and all other electronic communication devices must be silenced and placed out of sight during lecture unless permitted by the instructor. All devices will be turned off and put away during any type of exam. Computers may be used for taking notes during lectures.

Phones and cameras are permitted and recommended to take photos of laboratory slides and models during lab.

Academic Honesty and Late Penalties

Cheating (especially plagiarism) will not be tolerated. The first offense will result in a 0% (F) for the assignment. Second offense will result in a 0% (F) for the course and will be reported to the University for possible further action. Please consult the Academic Honesty Policy in the lab manual and your University catalog. Ignorance of the policies and definitions will not be accepted as a reason for violating them.

Late assignments will be assessed a penalty of up to 10% of the total possible points for each school day after the due date (starting immediately after the class it is due).

Students with Disabilities

Students needing special accommodations for disabilities of any kind should notify me in writing as soon as possible after the beginning of the semester. Notification should not include a diagnosis but should include specific requests for accommodation. Requests for accommodations must come through the Office of Disability Services.

Withdrawal and Audit Policies

Faculty in the Division of Natural Sciences will not sign academic exceptions for withdrawal after the deadline for students earning a grade of D or F. Academic exceptions for withdrawal after the deadline will be considered for students earning grades of A, B, or C only under highly unusual and extenuating circumstances.

It is also the policy of the Division that students may not change to audit status in a course after the 10-week withdrawal deadline under any circumstances. A change to audit status will only be granted to students that have regularly attended class. Students that audit the course are expected to attend and participate in lecture and lab. Any student with audit status that does not satisfy this requirement will be instructor withdrawn from the class.

The mission of Concord University is to provide quality, liberal arts based education, to foster scholarly and creative activities and to serve the regional community (<http://www.concord.edu/academics/>).

University Policies

Accessibility/Accommodations:

Concord University is committed to responding to the needs of students with disabilities as defined by the Americans with Disabilities Act. Please inform your instructor at the beginning of the class semester if you have a disability and are requesting accommodations. It is your responsibility to self-disclose that you are requesting accommodations. The University and instructor will provide you with a reasonable accommodation. You should register with CU's Disability Services Office, located in the Athens campus Jerry and Jean Beasley Student Center, Bottom Floor, across from the Campus Post Office. The Disability Services Office phone is 304-384-6086 or you can email the Director, Nancy Ellison, at nellison@concord.edu for assistance.

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 — including but not limited to failure of assignment, failure of course, loss of institutional privileges, or dismissal from the University. (See University Catalog Academic Policies and Procedures.)

Concord University Honor Code

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.

Class/Online Attendance Policy

Regular class attendance is part of a student's academic obligation at Concord. Irregular attendance may affect academic performance adversely and is detrimental to the atmosphere of a class. (See University Catalog Academic Policies and Procedures.)

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).

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

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emergency, call 304-384-5357 or 911. The Office of Public Safety is located on the bottom floor of the Rahall Technology Center. For further emergency information go to:

<http://www.concord.edu/administration/office-public-safety>.

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.*

Student Conduct

In classrooms, online, laboratories, and during any activities that are part of course requirements, students are expected to observe reasonable rules of conduct.

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. Reports to Campus Security can be made at (304-384-5357). As an employee at Concord University, I am a mandatory reporter which means I must report any sexual misconduct I am made aware of. This includes verbal or written (such as in an assignment) disclosures of sexual harassment or sexual assault.

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.edu.

Syllabus Disclaimer

"This syllabus is subject to change based on the needs of the class. Please check it regularly."

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Tentative Lecture & Exam Schedule – Spring 2019

Week	Topic	Readings in Raven et al
	Introduction & BIOL 101 Review	Chpt. 2-8
Week 1 & 2	Cell Division: Mitosis & Meiosis	Chpt. 10 & 11
Week 3 & 4	Genetics: Patterns of Inheritance	Chpt. 12 & 13
Feb. 12th	Lecture Exam #1	
Week 5	DNA Structure and Function	Chpt. 14
Week 6 & 7	From DNA to Proteins	Chpt. 15 & 16
Week 8	Genetic Engineering and Biotechnology	Chpt. 17
March 7th	Lecture Exam #2	
	SPRING BREAK	
Week 9	Evolution: Microevolution	Chpt. 20 & 21
Week 10	Evolution: Speciation and Macroevolution	Chpt. 22 & 23
Week 11	Origin of Life; Bacteria and Archaea	Chpt. 26 & 28
Week 12	Viruses Protists, Plants, Fungi, and Animals	Chpt. 27 Chpt. 29
April 16th	Lecture Exam #3	
Week 13	Ecology: Biodiversity Population Biology and Human Population Growth	Chpt. 59 Chpt. 55
Week 14	Community Ecology	Chpt. 56 & 58
Week 15	Ecosystems Global Climate Change	Chpt. 57 & 58
May 9th @ 9am	Final Exam (1/3 new material; 2/3 comprehensive)	

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Lab Schedule – Spring 2019**

Date	Lab
Jan 15	Blackbox Experiment (Handout)
Jan 22	Lab I – Mitosis / Using the Microscope
Jan 29	Lab II – Meiosis
Feb 5	Lab III – Genetics
Feb 12	Drosophila Genetics Project (Handout)
Feb 19	Lab IV – Protein Synthesis
Feb 26	Lab V – CSI for Biologists
March 5	Genetic Engineering Lab (Handout)
March 12	NO LAB – Spring Break
March 19	Natural Selection / Genetic Drift Sim Lab (Handout)
March 26	Lab VI – Taxonomy/Systematics
April 2	Lab VII – 3 Domains (Bacteria/Protists)
April 9	Lab VIII – Plants
April 16	Lab IX – Fungi and Lab X – Animals
April 23	Lab XI – Ecology (Population Ecology)
April 28-30	Community Ecology Lab (Handout)

When on inclement weather schedule, lab will meet:

Section 1 (Tues. 11am) – 12:10 – 1:30 pm

Section 2 (Tues. 1pm) - 1:40 – 3:00 pm