

**BIOLOGY 111: General College Biology 1
General Information**

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IMPORTANT NOTE: Students must read this syllabus in its entirety prior to the second week of class. Ongoing class attendance is student's affirmation that he/she has read and will comply with the terms of the syllabus. I am available to answer any specific questions you might have *after* you read the syllabus.

RRCC SYLLABUS INSERT

GT Pathway information: The Colorado Commission on Higher Education has approved BIO 111 for inclusion in the Guaranteed Transfer (GT) Pathways program in the [GT-SC1] category. For transferring students, successful completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category. For more information on the GT Pathways program, go to <http://highered.colorado.gov/academics/transfers/gtpathways/curriculum.html>

GT competencies and content

1. The lecture content of a GT Pathways science course (GT-SC1 or GT-SC2):
 - Students should be able to:
 - Develop foundational knowledge in specific field(s) of science.
 - Develop an understanding of the nature and process of science.
 - Demonstrate the ability to use scientific methodologies.
 - Examine quantitative approaches to study natural phenomena.
2. The laboratory (either a combined lecture and laboratory, or a separate laboratory tied to a science lecture course) content of a GT Pathways science course (GT-SC1):
 - Students should be able to:
 - Perform hands-on activities with demonstration and simulation components playing a secondary role.
 - Engage in inquiry-based activities.
 - Demonstrate the ability to use the scientific method.
 - Obtain and interpret data, and communicate the results of inquiry.
 - Demonstrate proper technique and safe practices.
3. INQUIRY & ANALYSIS
 - a. Select or develop elements of the methodology or theoretical framework to solve problems in a given discipline.
 - a. Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus.
 - b. Utilize multiple representations to interpret the data.
 - a. State a conclusion based on findings.

4. QUANTITATIVE LITERACY

- a. Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).
- a. Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words).

Course: BIO 111

Title: Gen College Biology I/Lab: SC1

Long Title: General College Biology I with Lab: GT-SC1

Course Description: Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.~~This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

STANDARD COMPETENCIES:

1. Recognize terminology, specific facts, experimental methodologies, and general concepts related to basic chemistry, cell structure and function, cell reproduction, bioenergetics, and genetics.
2. Read, analyze and apply the concepts learned to interpret new situations.
3. Distinguish between the principles and purposes of procedures and techniques introduced in the laboratory.
4. Describe the role of research in the biological sciences and its impact on society.
5. Employ the scientific method to the extent of formulating a hypothesis, designing a set of experiments with controls, analyzing results, and deriving conclusions.
6. Interpret and manipulate data in a variety of formats, such as graphs, tables, and charts.
7. Select and apply contemporary technologies to solve problems or compile information.
8. Write and speak clearly and logically in presentations and essays.

RRCC Syllabus Disability Statement (ACCESSIBILITY SERVICES): ADA (Americans with Disabilities Act Amendments Act of 2008) and Section 504 of the Rehabilitation Act of 1973: Red Rocks Community College is committed to access for students with disabilities. If you are a student with a disability and need assistance or are interested in requesting accommodations, please contact Accessibility Services. Faculty are not obligated to provide accommodations without proper notification by Accessibility Services and accommodations are not retroactive. Students may contact the Access staff by telephone or email to make an intake appointment at 303-914-6733, 720-372-1591(VP) or [Accessibility Services access@rrcc.edu](mailto:access@rrcc.edu). Accessibility Services is located in Suite 1182 at the Lakewood campus. More information is available at the [Accessibility Services website: www.rrcc.edu/accessibility-services](http://www.rrcc.edu/accessibility-services).

Mandatory Reporting Statement: Our College is committed to preserving a safe and welcoming educational environment for all students. As part of this effort, I have an obligation to report certain issues relating to the health and safety of campus community members. I must report to the appropriate College officials any allegation of discrimination or harassment. Sexual misconduct, which includes sexual harassment, non-consensual sexual contact, non-consensual sexual intercourse, and sexual exploitation, is considered a form of discrimination. In addition to reporting all discrimination and harassment claims, I must report all allegations of dating violence or domestic violence, child abuse or neglect, and/or credible threats of harm to yourself or others. Such reports may trigger contact from a College official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like more information, you may reach the Title IX/EO Coordinator: D. **Arnie Oudenhoven, Executive Director of Human Resources/Title IX Administrator, 303-914-6298** or [Arnie Oudenhoven \(arnie.oudenhoven@rrcc.edu\)](mailto:arnie.oudenhoven@rrcc.edu)

Reports to law enforcement can be made at the Red Rocks Campus Police Department behind the Welcome Desk at the Main Entrance or [RRCC Dispatch \(rrpd.dispatch@rrcc.edu\)](mailto:rrpd.dispatch@rrcc.edu) at 303-914-6394.

If you would like a confidential resource, please contact **Deborah Houser, Assistant Director of Human Resources/Deputy Title IX Administrator, 303-914-6224** or [Deborah Houser \(deborah.houser@rrcc.edu\)](mailto:deborah.houser@rrcc.edu). Further information may be found on the college [Human Resources website: http://www.rrcc.edu/human-resources/sexual-misconduct](http://www.rrcc.edu/human-resources/sexual-misconduct).

Student Handbook: The [RRCC Student Handbook](http://www.rrcc.edu/student-life/handbook) is your most current source of dates, resources, contacts, and policies: <http://www.rrcc.edu/student-life/handbook>.

ACADEMIC DISHONESTY: According to the handbook there is a zero tolerance policy for any form of academic dishonesty in this course. Disciplinary action will be taken against any student found guilty of academic dishonesty such as cheating or plagiarism. Although you will often be working with others in lab, all written work you prepare MUST be your own. If your words match those of others, I will assume you copied rather than composing the answers yourself. The penalty for being dishonest in this way is far greater than simply getting a wrong answer. Those committing academic dishonesty will be subject to disciplinary action up to and including failing the assignment, failing the course, and/or expulsion from the course or college.

Please visit the dropbox on D2L to sign off that you have read and understand this syllabus completely. Please do not hesitate to ask questions about anything that may be unclear.

IMPORTANT DATES:

Last day to drop and initiate a tuition refund: February 1st, 2017

Last day to withdraw ("W" recorded, no refund): April 14th, 2017

**Be sure you consult with the financial aid office prior to withdrawing from the course.

Course Specifics

Text: Required for this course:

- 1) Biology, Campbell *Red Rocks Edition*
- 2) General College Biology 1 Laboratory Manual (Custom Edition for RRCC)

Supplies: Writing materials, calculator, stapler, flash drive, and recording device

Objectives: This course introduces the general principles relative to living things. The approach emphasizes biochemistry, but also includes molecular, cellular and genetic processes.

Specifically, through lectures/demonstrations, lab work and assigned reading students are expected to demonstrate on exams their understanding of the units listed below.

Topic 1: Scientific Method, Introducing Energy and Information (Chapters 1, 8 & 54)

Topic 2: Basic Chemistry (Chapters 2 & 3)

Topic 3: Organic Molecules (Chapters 4, 5 & 8)

Topic 4: The Cell, part I (Chapter 6)

Topic 5: The Cell, part II (Chapters 7 & 12)

Topic 6: Introducing Biological Energetics (Chapters 8, 9&10) *

Topic 7: Introducing DNA (Chapters 5, 16 & 17)

Topic 8: Introducing Genetics (Chapters 13-15)

Topic 9: Introducing Genetic Control/Biotechnology (Chapters 17&18)

Evaluation:

Lecture Exams: Exams will be made up of objective questions. There will be four exams during the semester. The last exam is worth 140 points but is **not comprehensive**. The other exams are worth 100 points each. If you miss any of the first three scheduled exams, you must take a make-up version of the exam (prior to the scheduled date of the next exam and when I am scheduled to be on campus) or a grade of zero (for that exam) will be recorded. A make-up exam will cover the same material but will consist primarily of essays, written definitions and descriptions, and diagrams. Consequently, a make-up exam is more detailed and time-consuming than a scheduled exam owing to the fact that the student will have had more time to prepare than anyone else in the class. It is up to the student to contact me to make arrangements to take the make-up exam. Only one make-up exam will be allowed per student-per semester. The fourth exam cannot be taken after the last scheduled class session unless campus is closed for that session. Also note that you may not re-take or drop any exams, regardless of your score. You are responsible for any and all lecture material, handouts, and assignments that you miss the days you are absent. First, you must obtain notes (or recordings) from a fellow student. *Then* feel free to ask me *specific* questions regarding the material.

Laboratory work: Biology is the study of life and living is an activity! We learn best when doing. Therefore, laboratory work is critical to our understanding of biology. Lab homework (hardcopies only) will be due one week following our completion of that lab **at the beginning of lecture**. In the event of campus closure or class cancelation on a day an assignment is due, labs will be turned in the next time the class meets. Late labs will not be accepted. Answers must be written in space provided in the lab manual (unless otherwise noted) and all labs must be stapled (no dog-ears, paper clips and such) before they are turned in. Also, I need to be able to read what you write. If your work is too sloppy for me to read, I won't try to read it. Hence, no credit will be given. Most labs require a pre-lab assignment (to be completed before the lab to avoid a 3-point fine). There will be two lab exams (practicals) in which you will demonstrate your abilities and understanding of lab concepts. These may include use of the microscope, chemical testing, cell identification, etc. **No make-up lab exams.** In addition to weekly assignments we will have one **formal** lab write-up. Lab work will comprise about 30% of your grade.

Problems: It may be the case that some individuals will experience personal setbacks during the semester. Please email me (using your D2L account) as soon as possible to let me know so we can work something out. Email is how I communicate with students to keep them apprised as to special assignments and instructions along with notifications regarding any changes in scheduling and so on. Once I send a notification via email to the class, the students become responsible for any special instructions or schedule changes in the message. Email should be used by students to me to communicate special circumstances regarding personal matters that interfere with the course as scheduled as well as any inquiries regarding grades. I cannot answer questions about biology (the subject matter) via email. I will be happy to answer any and all *specific* questions regarding the course material during lab.

If an assignment is due on a day that you cannot make it to campus for whatever reason, such as illness or inclement weather, attach the assignment to an email (sometimes tom.zapico@rcc.edu works better than D2L with larger documents) as it will be due nonetheless. The assignment should reach my email before the beginning of lecture. In case of class cancellation or campus closure, the assignment will be due at the next class meeting.

Some assignments need to be typed to be accepted and graded. Pay attention as to which ones require typing so as not to be tagged with a late fee or a zero. Most assignments need to be stapled (anything with multiple pages). This is the student's responsibility (not the instructor's). Such assignments that are dog-eared, paper-clipped (and the like), or simply not stapled will not be graded and will be scored as a zero.

Extra Credit

There will be plenty of opportunities for extra credit during the semester.

Grading Scale:

90-100%=A

80-89% =B

70-79% =C

60-69% =D

Below 60% =F

Grading Symbols (from instructor handbook)

A Distinguished achievement for superior work

B Better than acceptable achievement

C Acceptable achievement for advancement in the same or related studies

D Less than acceptable achievement for advancement in the same or related studies (credit may not transfer or count toward some degrees or certificates)

F Failure to achieve or master the learning objectives of the course. A grade of F does not apply toward certificates or degrees.

AU Audit. If you want to take a course without earning credit, you can register to audit that course. You must pay full tuition and fees, and you will not receive the COF stipend for the course. You must declare your intention to audit no later than the course's tuition refund date. Once you have registered to audit a course, you cannot change your registration from auditing to earning credit for the course. The college will not award credit for any audited course.

AW Administrative Withdrawal. The grade of AW may be given at the

discretion of the individual faculty member.

W Withdrawal. Through Admissions, you have officially withdrawn from the course or the college by the approved date and time listed in the current semester's schedule.

I Incomplete. If you are not able to complete the learning objectives before the end of a course because of verifiable extenuating circumstances, the instructor may assign a grade of incomplete at his or her discretion. Before you are eligible to receive an I, you must have completed a minimum of 75% of the course work with a grade of C (or better). Before the end of the course, you are responsible for making arrangements with the instructor to sign an Incomplete Grade Contract. If you do not complete the course work by the agreed-upon deadline, the instructor will change the I to the letter grade stipulated in the contract.

