

## Course Info



**RIO SALADO COLLEGE**

A MARICOPA COMMUNITY COLLEGE

## Biology Concepts

BIO100 31835 Fall 2019

Start Date: Sep 16, 2019

End Date: May 29, 2020

Credits: 4

Modality: In Person

## Instructor Information

**yName:** Hannah Mougharbel

**Contact Information:**

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**Location:** RM 342

**Office Hours:** Monday & Wednesday 3pm - 4pm

**Website:** [msmougharbel.weebly.com](http://msmougharbel.weebly.com)

## Course Competencies

### Official Course Description

Introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored. Prerequisites: None.

### Official Course Prerequisites

None

### Official Course Competencies

1. Describe and/or utilize the Scientific Method. (I)
2. Describe the basic characteristics shared by all living things. (I)
3. Perform laboratory activities that demonstrate the principles of the scientific method which includes making observations, developing hypotheses, determining variables, collecting/analyzing data, reporting results and drawing conclusions. (I)
4. Identify and describe the basic chemistry fundamentals involved in the structure and life processes of living things. (II)
5. Identify and describe the structure and functioning of cells. (III)
6. Describe the arrangement and function of tissues, organs, and organ systems in multicellular organisms. (IV)
7. Analyze the processes of cellular metabolism and the related energy transformations, organic molecules and cell structures. (V)
8. Identify and describe the importance of and the components of homeostasis. (VI)
9. Describe and examine the various kinds of reproduction. (VII)
10. Describe and analyze the processes involved in the biochemistry of DNA and other biochemicals of genetics (including protein synthesis). (VIII)
11. Analyze the events and processes involved in inheritance. (VIII)
12. Describe and analyze the processes that result in mutations. (VIII)
13. Describe and analyze the processes involved in evolution and their impact on all living things. (IX)
14. Identify and describe the basic concepts of taxonomy and how they relate to the classification of all living things. (X)
15. Identify and analyze the basic principles of ecology. (XI)

## Course Materials

### Required Course Materials

Title	Edition	Author	ISBN
Biology	11th Edition	Raven, Johnson, Mason, Losos, and Singer	9781259670084

### Course Material Information:

Binder, filler paper, index cards, highlighter, colored pencils, pencil, pen, dry erase marker, and internet access (USATestPrep.com and E-Book access).

# Standards and Expectations

This dual enrollment college course is intended for high school students at the junior and senior level.

## Time Requirement

You will need to dedicate significant time to this college course. For each credit hour, plan to spend at least two hours a week on homework in addition to class presentation time.

# Course Calendar

Weeks	Lessons
Week 1 - 3	<i>Unit 1: Molecular Basis of Life</i>
	Lecture Quiz 1
	Lab: Conversion Lab
	Lab: Safety Measures
	Lab: Measuring Liquids
	Lab: Scientific Method
	<b>Unit Exam 1</b>
Week 4 - 7	<i>Unit 2: Biology of a Cell</i>
	Lecture Quiz 2
	Lab: Build a Cell
	Lab: Cell Absorption
	<b>Unit Exam 2</b>
Week 8 - Week 13 (Week 10 - Fall Break)	<i>Unit 3: Genetic and Molecular Biology</i>
	Lecture Quiz 3
	Lab: DNA Structure
	Lab: Meiosis
	Lab: PTC Paper
	Lab: Gene Expression
	<b>Unit Exam 3</b>
Week 14 - Week 18	<i>Unit 4: Evolution</i>
	Lecture Quiz 4
	Lab: A Step in Speciation
	Lab: Chromosome Comparison 2: Human vs Chimp
	<b>Unit Exam 4</b>
Week 19 - 20	<b>Review/Midterm</b>
Week 21 - 22	<i>Winter Break</i>
Week 23 - 26	<i>Unit 5: Diversity of Life on Earth</i>
	Lecture Quiz 5
	Lab: Microscope Observations (Multiple)
	<b>Unit Exam 5</b>
Week 27 - 29	<i>Unit 6: Plant Form and Function</i>
	Lecture Quiz 6
	Lab: Plant Cell

Lab: Plant Dissection

### Unit Exam 6

*Unit 7: Animal Form and Function*

Week 30 - Week 36

Lecture Quiz 7

(Week 32 - Spring  
Break)

Lab: Shark Dissection

### Unit Exam 7

*Unit 8: Ecology and Behavior*

Lecture Quiz 8

Week 37 - Week 40

Lab: Sustainability

### Unit Exam 8

Week 41 - 42

### Review/Final Exam

## Grading Standards

Students will be evaluated based on the following:

Lesson Quizzes 25%; Labs and Lab Quizzes 25%; Exams 50%

The lab portion of the course is worth 25% of the course, since it is valued as 1 credit of the 4 credit course.

*A passing average (60% or higher) must be earned in the laboratory portion of the course in order to receive a passing grade for the course. If a student does not earn an average of 60% or better on the laboratory portion of the class, the student will receive a failing grade for the class, even if the class grade, including all other assignments, is passing.*

*An average of 60% or better on the exams must be earned in order to receive a passing grade for the course. For example, if a student earns a 50% on the first exam, a 60% on the second exam, and a 64% on the third exam, the average on the exams would be a 58% and therefore the student would receive a failing grade for the course, even if the class grade, including all other assignments, is passing.*

Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Learning takes place for each individual at his or her own time and place and independently. As such, ***collaboration is not allowed***. This includes working together on any assignments submitted for a grade.

## Attendance Standards

In order to maintain college credit, you are not allowed to miss more than 2 consecutive weeks. This class meets 2 days a week, and after the 4th consecutive absence, you will lose college credit. Please note: if you are removed from the class or withdraw after established deadlines, you will not receive a refund for the course

## Late Policy

Assignments submitted 1 day late will earn 50% credit. No credit will be earned thereafter.

If you are absent (excused) the day of a lab or other class activity, you have as many days to make up this work as you were absent.

## Equipment Use Policy

Laboratory equipment will be utilized in this course to complete laboratories.

Students are to adhere to the classroom lab safety rules when using this equipment.

## College Policies

### Extra Credit Policy:

There are no extra-credit assignments for this class. The scheduled assignments and exams are sufficient to test understanding of the materials presented in the course.

### Academic Misconduct:

Academic Misconduct includes cheating, conspiring to cheat, soliciting to cheat, attempting to cheat, plagiarism, fabrication on an assignment, or other forms of dishonest presentation.

Posting assessments on an unauthorized web site, soliciting assessment answers and the unauthorized acquisition of assessments, assessment answers, or other academic material is cheating.

Plagiarism includes, but is not limited to, the use of paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling or sharing of term papers or other academic materials. Information gathered from the Internet and not properly identified is also considered plagiarism.

We expect every student to produce his/her original, independent work. Any student whose work indicates a violation of the MCCCDC Academic Misconduct Policy (including cheating and plagiarism) can expect sanctions as specified in the college catalog (2.3.11) and online at <https://district.maricopa.edu/regulations/admin-regs/section-2/2-3#11>

Rio Salado College uses software that uncovers plagiarism from student to student and other data sources on the Internet. If a student is found to have plagiarized content, grade consequences will be applied in accordance with departmental policies.

## Civility Policy:

The faculty of Rio Salado place a high value on the importance of general ethical standards of academic behavior and expect that communication between students and instructors or among students shall maintain the level of formality and mutual respect appropriate to any college teaching/learning situation. Language or behavior that is rude, abusive, profane, disruptive, or threatening will not be tolerated. Activity of this type is Academic Misconduct as defined in MCCCDC Policy AR 2.3.11. Student engaging in such behavior will be removed from the course with a failing grade. Additional sanctions may be applied pursuant to AR 2.3.11.

## Refund Policy:

Refunds are not automatic. Students who drop courses within the refund period are eligible for a reimbursement of appropriate tuition. Deadlines and details are available online at <http://www.riosalado.edu/cashier/Pages/refund.aspx>.

## Academic Adjustment Needs & Disability Resources and Services

In accordance with Rio Salado College and Maricopa Community College District policies, all students should have equal access to course materials and technology. Please contact the Disability Resources and Services Office prior to the start date of your course at 480-517-8562 if you have any of the following needs:

- you are a student requiring an academic adjustment due to a documented disability (as protected by The Americans with Disability Act Amendment Act)
- you are experiencing difficulty accessing course materials because of a disability
- you are pregnant or parenting and would like to discuss possible academic adjustments (as protected under Title IX)

References:

1. Maricopa Community College District Administrative Regulation 2.8.1: <https://district.maricopa.edu/regulations/admin-regs/section-2/2-8>
2. Rio Salado College Disability Resources and Services website: [http://www.riosalado.edu/disability\\_services/Pages/default.aspx](http://www.riosalado.edu/disability_services/Pages/default.aspx)

## Classroom Accommodations for Students with Disabilities

In accordance with the Americans with Disabilities Act, the Maricopa County Community College District (MCCCDC) and its associated colleges are committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. mental health, attentional, learning, chronic health, sensory, or physical). Visit <https://district.maricopa.edu/mandatory-drs-title-ix-syllabus-statements> for more information.

## Addressing Incidents of Sexual Harassment/Assault, Dating/Domestic Violence, and Stalking

In accordance with Title IX of the Education Amendments of 1972, MCCCDC prohibits unlawful sex discrimination against any participant in its education programs or activities. The District also prohibits sexual harassment—including sexual violence—committed by or against students, District employees, and visitors to campus. As outlined in District policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by District policy. Visit <https://district.maricopa.edu/mandatory-drs-title-ix-syllabus-statements> for more information.

## Tuition Assistance

Tuition Assistance is available to students enrolled in a Rio Salado College dual enrollment courses who demonstrate financial need. Details are available online at <http://www.riosalado.edu/dual/>

## Student Responsibility

The student is responsible for the information outlined in the syllabus. The student is also responsible for knowing the Rio Salado College policies in the college catalog and the student handbook available online at <http://www.riosalado.edu/dual/>

## Disclaimer

Course content and syllabus may vary from the course calendar listed above in order to meet the needs of the particular group in this course section.

## Acknowledgement Form

**THIS SYLLABUS IS SUBJECT TO MODIFICATION BY THE INSTRUCTOR.**

I have read the above policies, rules, and procedures and understand the information on the above pages. I agree to follow all of the rules and procedures listed. As a student of Rio Salado College, I understand that I am responsible for college policies outlined in the course catalog. The Rio Salado College Catalog can be found at <http://www.riosalado.edu/catalog/Pages/default.aspx>.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_