

SC214OR/ Biology 1 CR Syllabus

Course Title-----	Biology 1 CR
Course Number-----	SC214OR
Grades:-----	11-11
High School Credit Value:-----	0.5
Prerequisites:-----	A transcript or other documentation is required to show the student has previously taken the course and not earned credit.
Course Length:-----	Regular courses: 17 weeks CR: 9-17 weeks.
Course Time:-----	Regular courses: 17 week schedule: 75 - 90 minutes per school day (6-7.5 hours per week) Credit Retrieval: 75 - 90 minutes per school day (6-7.5 hours per week) until course completion.

{ Course Description }

Credit Retrieval Biology 1 is a course for students who have taken and failed biology before. It is designed for students to master previously unsuccessful standards in order to earn course credit. A pretest determines which portion of the course a student will study toward meeting course standards. This course helps meet the state minimum requirements of 2.0 science credits in addition to it meeting a lab requirement. Please check with your district for more specific requirements.

Course Materials:

Technical requirements require the ability to download and use freeware such as Adobe Acrobat and Flash.

State Alignments

Washington State Standards guided the design of the course. Learning expectations are found within the course itself.

These are the standards for semester 1 biology.

1. In complex systems, entirely new and unpredictable properties may emerge. Consequently, modeling a complex system in sufficient detail to make reliable predictions may not be possible.
2. Scientific progress requires the use of various methods appropriate for answering different kinds of research questions, a thoughtful plan for gathering data needed to answer the question, and care in collecting, analyzing, and displaying the data.

3. Public communication among scientists is an essential aspect of research. Scientists evaluate the validity of one another's investigations, check the reliability of results, and explain inconsistencies in findings.
4. Carbon-containing compounds are the building blocks of life. Photosynthesis is the process that plant cells use to combine the energy of sunlight with molecules of carbon dioxide and water to produce energy-rich compounds that contain carbon (food) and release oxygen.
5. The cell is surrounded by a membrane that separates the internal of the cell from the outside world and determines which substances may enter and which may leave the cell.
6. The genetic information responsible for inherited characteristics is encoded in the DNA molecules in chromosomes. DNA is composed of four subunits (ATCG). The sequence of subunits in a gene specifies the amino acids needed to make a protein. Proteins express inherited traits and carry out most cell function.
7. All of the functions of the cell are based on chemical reactions. Food molecules are broken down to provide the energy and the chemical constituents needed to synthesize other molecules. Breakdown and synthesis are made possible by proteins called enzymes. Some of these enzymes enable the cell to store energy in special chemicals, such as ATP, that are needed to drive the many other chemical reactions in a cell.
8. Egg and sperm cells are formed by a process called meiosis in which each resulting cell contains only one representative chromosome from each pair found in the original cell. Recombination of genetic information during meiosis scrambles the genetic information, allowing for new genetic combinations and characteristics in the offspring. Fertilization restores the original number of chromosome pairs and reshuffles the genetic information, allowing for variation among offspring.

Course Outline

17 Week Session

Unit 1 Cells: The Unit of Life, 2 weeks
Unit 2 Basic Cell Chemistry, 2 weeks
Unit 3 Cell Structure and Function, 3 weeks
Unit 4 Respiration and Photosynthesis, 3 weeks
Unit 5 DNA, RNA, and Protein Synthesis, 3 weeks
Unit 6 Mitosis and Meiosis, 3 weeks
Semester Final, 1 week

12 Week Session

Unit 1 Cells: The Unit of Life 2 weeks
Unit 2 Basic Cell Chemistry, 1 1/2 weeks
Unit 3 Cell Structure and Function, 2 weeks
Unit 4 Respiration and Photosynthesis, 2 weeks
Unit 5 DNA, RNA, and Protein Synthesis, 2 weeks
Unit 6 Mitosis and Meiosis, 2 weeks
Semester Final, 1/2 week

Course Work

The amount of time a student must spend on the course depends on the extent of the Written Learning Plan. Typically, students are expected to put in 6-8 hours per week to complete their lessons. Lessons should be turned in as soon as they are completed and not turned in in large bulk emailings at the end of the term. Lessons should be turned in via email in most cases and exceptions must be approved by the instructor first.

Course will require student to meet course standards on a final exam.

Grading**Occupational Credit:**

This course may qualify for *occupational credit. Please consult your school counselor for further clarification.

*Please note that FLA901 (Sign Language) does not qualify for occupational credit.

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