COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

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Status: Permanent

A. Identification:

1. Subject Area: Biology
2. Course Number: BIO 100
3. Course Title: BIOLOGY CONCEPTS
4. Credit Hrs: 4
5. Catalog Description

Basic principles and concepts of biology. Explores methods of scientific inquiry and behavior of organisms and energy in biological systems. Prerequisites: *ENG 099 or placement. General Education: Physical and Biological Sciences. Three lecture; three lab.

B. Course Goals:

Provide students with the conceptual framework in which to discuss the major contemporary issues in biology.
Provide students with the opportunity to explore the scientific method of inquiry in laboratory-based studies.

C. Course Outcomes:

GECC Course
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Student Outcomes list

Students will:

1. Utilize the scientific method in developing and testing hypotheses
2. Analyze significant current events in science and explain their significance
3. Evaluate the significance of changes in basic environmental variables to ecosystem function
4. Discuss the basic phenomena important to population dynamics and organismic interactions
5. Analyze the essential arguments for the theory of evolution
6. Apply basic Mendelian genetics
7. Explain the fundamentals of human genetics and human inherited disease
8. Evaluate the main biotechnologies and explain the implications of genetic engineering from both a societal and individual point of view
9. List the basic molecules of living systems
10. Demonstrate an understanding of fundamental cellular organization and energetic principles

D. Course Outcomes Assessment:

Will include:

1. Comprehensive final exam
2. Written assignment

E. Course Content:

Will include :

1. Scientific method, basic measurements and laboratory safety
2. The role of science in society
3. Environmental and biological diversity
4. Energy and nutrients in ecosystems
5. Population and community ecology
6. Evolution and evolutionary theory
7. Basic genetics and human reproductive issues
8. Biotechnology and genetic manipulation
9. Molecules of living systems

10. Cellular organization and energetics
11. Photosynthesis

***Course has additional pre or co requisite(s)**