Phase IIB CCN TEMPLATE

Background

- This CCN Course Template was developed by Biology discipline faculty representatives from the California Community Colleges, California State University, University of California and independent colleges and universities during October-December 2024, starting with local course outline of record and syllabi information provided by intersegmental faculty during the pre-convening survey process.
- Development of the CCN Course Template was facilitated by ASCCC with advisory input from segment articulation officers and transfer experts.
- Approved and Submitted to the Chancellor's Office: June 2025

Subject: Biology	**Subject Code:** BIOL
Proposed Course Number (Identical): C1001L	
Course Title (Identical): Introduction to Biology Lab	

Catalog/Course Description

Part 1 (Identical and Required):

This laboratory course provides the hands-on application of concepts learned in the Introduction to Biology lecture (BIOL C1001) for the non-biology major. Students use experimentation and investigation to develop important critical thinking skills. Students engage in the process of science to explore the building blocks of life, the role and regulation of DNA, how populations change over time, the movement of energy within and between life forms, and how species interact with each other and their surroundings. By the end of the course, students will be familiar with some of the equipment and techniques used by biologists.

Part 2 (Optional Expanded Description, Local College Discretion):

Minimum Unit Threshold | 1.0 Semester Unit

Unit amounts must adhere to the established minimum.

Prerequisites (Identical): None

Co-Requisites (Identical): Completion of or concurrent enrollment in BIOL C1001

Other Limitations on Enrollment (determined locally)

Advisories/Recommended Preparation (determined locally)

Course Content

Part 1: Required Topics (Identical):

This is a lab only course.

Part 2: Optional Expanded or Additional Topics (optional):

Laboratory Content

Part 1: Required Topics (Identical):

1. Process of science and experimental design
2. Personal protective equipment, care and safe use of laboratory equipment
3. Utilization of microscopy to visualize and identify cell structures
4. Cellular transport mechanisms
5. Energy cycling and metabolism
6. Cell division
7. Genetics and inheritance
8. Diversity of life
9. Evolution
10. Ecology

Part 2: Optional Expanded or Additional Topics (optional):

Course Objectives/Outcomes

Part 1 (Identical and Required):

At the conclusion of this course, the student should be able to (Identical and Required):

1. Apply the scientific method, including recognizing the elements of experimental design, gathering and analyzing data, and interpreting results.
2. Demonstrate scientific literacy by evaluating social, ethical, and equity issues connected to biological sciences.
3. Describe how living things are made of smaller structures that work together to enable the organism to survive.
4. Compare how living things depend on each other and the physical environment as they interact to obtain, change, and exchange matter and energy.
5. Explain how the diversity of living things is the result of evolution of organisms through mechanisms such as heredity, random change, and natural selection.
6. Collaborate on laboratory investigations of the biological content using appropriate, safe methods and equipment.

Part 2 Optional objectives/outcomes (optional):

At the conclusion of this course, the student should be able to:

Methods of Evaluation

Part 1 (Identical and Required):
Examples of evaluation methods used to observe or measure students' achievement of course outcomes and objectives may include but are not limited to quizzes, exams, laboratory work, field journals, projects, research demonstrations, etc.

Methods of evaluation are at the discretion of local faculty.

Part 2 List Additional Methods of Evaluation (Optional):

Representative Texts, Manuals, OER, and Other Support Materials

Part 1 (Identical and Required):

Texts used by individual institutions and even individual sections will vary.

Example lab manuals:

- Bres, M., & Weisshaar, A. (2018). Thinking About Biology: An Introductory Lab Manual (What's New in Biology). 6th ed.: Pearson.
- Locally developed lab manual

Part 2 List Sample Textbooks, Manuals, or Other Support Materials (optional):

Date Approved:

June 16, 2025, following ASCCC facilitation of template development process, including engagement of faculty discipline representatives from California Community Colleges, California State University, University of California, and independent colleges and universities and advisory input from segment articulation officers and transfer experts.