

Minnesota State University Moorhead

BIOL 109L: Biology Today Lab

A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: 0

Lab Hours/Week: 1

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 03 - Natural Science

Twelve hours of laboratory experience will provide an understanding of the scientific method, the relationship between hypotheses and theories, data collection, analysis, and communication of results. Course should be taken concurrently with BIOL 109. MnTC Goal 3.

B. COURSE EFFECTIVE DATES: 01/12/2009 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. An approach that helps students to understand the connections among fields of biology and the intimate connections between biology and social issues.
2. An integrated educational system that encourages critical thinking and questioning rather than just memorization. One of the aims of this course is to educate students with a biological literacy that will enable them to evaluate scientific arguments and make appropriate decisions affecting their own lives and the well-being of society.
3. An issues-oriented approach to the learning of biology, one that emphasizes coherent understanding on selected issues.
4. Consider societal issues from natural science perspectives, making informed judgments by assessing and evaluating scientific information.
5. Coverage of immediate contemporary issues, making certain that biological concepts will connect with students' daily lives.
6. Demonstrate an understanding of the scientific method and of the relationship between hypotheses and theories.
7. Demonstrate knowledge of the concepts, principles, problems, and perspectives of one or more specific scientific disciplines.
8. Educational features, such as "Thought Questions", that encourage students to think about biology as a process of inquiry rather than as a series of unquestioned facts.
9. Exhibit knowledge of the development and contributions of major scientific theories.
10. Recognize and define problems and formulate and test hypotheses using data collected by observation or experiment. One project must develop, in greater depth, students' laboratory or field experience in the collection of data, its quantitative and graphical analysis, its interpretation, its reporting, and an appreciation of its sources of error and uncertainty.
11. Thorough coverage of biological concepts, ensuring that introductory biology students are able to grasp the science while debating the issues.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 03 - Natural Science

1. No Competencies Indicated

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted