

## New Objectives Statements for BI 151, 152, 153, 154 and 489 (11/17/11)

**BI 151** Students will demonstrate an understanding of:

- A. science as a way of addressing questions about the natural world.
- B. the appropriate use of the scientific method to develop, express, test, and critique hypotheses.
- C. the evidence for relatedness among organisms.

**BI 152** Students will demonstrate:

- A. an understanding of science as a model of conjecture and refutation.
- B. an understanding of the nature of experimental variables and ways of testing.
- C. an ability to properly design, conduct, analyze, and present the findings of scientific experiments.

**BI 153** Students will demonstrate an understanding of:

- A. evolution by natural selection.
- B. the properties of life and biological organization in organisms.
- C. the principle concepts of ecology and organization in ecosystems.

**BI 154** Students will demonstrate an understanding of the:

- A. interaction of structure and functions in prokaryotic and eukaryotic cells.
- B. interaction of structure and functions of biologically important molecules.
- C. fundamental concepts of Mendelian and modern genetics.

**BI 489** Students will demonstrate:

- A. skills in information acquisition, analysis and management, integration, and communication.
- B. an ability to analyze and apply biological information to social, global, and other issues.
- C. an ability to explore and critically analyze the ethical conduct of science and the responsibilities of scientists to society.

## Matrix of Course Objectives vs. Departmental Objectives

	Departmental Objectives						
	1	2	3	4	5	6	7
BI 151							
Objective A	X						
Objective B	X						
Objective C					X		X
BI152							
Objective A	X						
Objective B	X						X
Objective C	X						X
BI153							
Objective A				X	X		
Objective B				X	X		
Objective C				X	X		
BI 154							
Objective A		X	X				
Objective B		X	X				
Objective C		X	X				
BI 489							
Objective A						X	X
Objective B	X						X
Objective C	X						X

### Departmental Objectives

1. Students will demonstrate understanding of the process of scientific inquiry.
2. Students will demonstrate knowledge of concepts of cellular biology.
3. Students will demonstrate knowledge of concepts of molecular biology and genetics
4. Students will demonstrate knowledge of concepts of organismal biology.
5. Students will demonstrate knowledge of concepts of population biology, evolution, and ecology.
6. Students will demonstrate proficiency in written expression.
7. Students will demonstrate proficiency in critical thinking skills.