Course Outcomes Guide

Directions: Please complete this form to document your progress toward improving student learning. For each item, indicate your progress and your anticipated next steps. Thank you!

Course Title: Bio 106 **Date: Fall 2012**

Course Team: Bernard Murphy, Tamela Forte

Expected Student Learning Outcomes

1. Relate a basic core of scientific principles to an open-ended framework.
2. Demonstrate observational and analytical skills in a structured situation.
3. Formulate conclusions based on observations and information.
4. Use technology to access scientific information, generate and analyze empirical data, and solve problems.

Assessment (How do or will students demonstrate achievement of each outcome?)
Students are given a pretest before class begins and are given the same questions as part of the final exam. Students in all sections are given the same pretest and then given the same questions as in the prestest as part of a common final exam. Lab evaluations are in common except for two outdoor labs that cannot be done by the night section.

Validation (What methods have you used or will you use to validate your assessment?)
None yet, but the biology PRAXIS test may be used

Results (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)
(on the next page)

Follow-up (How have you used or how will you use the data to improve student learning?)
I will identify concepts that give students the most trouble and intensify instruction in those areas.

Budget Justification
(What resources are necessary to improve student learning?)
Clickers have been added to the classroom.

Results for Spring Semester, 2010

Percent Incorrect answers

	Pretest	**Posttest**
1. **Scientific Literacy**	25	5
2. **Atoms**	75	62
3. **Molecules**	86	30
4. **Macromolecules**	39	11
5. **Cells**	83	19
6. **Biological Diversity**	78	27
7. **Cell Transport**	94	51
8. **Energy**	58	65
9. **Cellular Respiration**	94	59
10. **Photosynthesis**	61	30
11. **Cell Reproduction**	69	68
12. **Organism Reproduction**	61	46
13. **Heredity**	75	35
14. **Genes**	69	38
13. **Evolution**	83	68