Learning outcomes for the biology department

Biology – Teaching (the teachers will meet the same outcomes as the liberal arts majors plus meet the outcomes of the education program)

Students will:

1. Explain foundational biological principles, theories, and models spanning all ranges of biological complexity including molecules, genes, cells, organisms, communities, and ecosystems

2. Explain advanced biological theories, models, and methods

3. Search, retrieve, discuss, analyze, and assess original scientific research articles

4. Design controlled experiments and/or observational studies as biologically appropriate to test specific hypotheses

5. Demonstrate laboratory and/or field skills necessary to answer biological questions

6. Confront models with data (or, interpret data) and draw reasonable conclusions

7. Communicate scientific ideas and results effectively and professionally

8. Describe how scientific ideas and results are disseminated and evaluated within the scientific community