

## **Increasing Elementary Education Majors' Understanding, Confidence and Attitude in Life Sciences**

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Life science courses for non-science majors at the University of Wyoming aim to increase scientific literacy for students by supporting their understanding of complex biological concepts through exploration of societal links that improve student attitude and comfort with science. Elementary education majors are required to take only one four-credit life science course, Life Science, which focuses on three major issues pertaining to biodiversity loss: genetics, disease and ecology, which are discussed in lecture, lab and discussion format. For each of these three issues, pre- and post-surveys were administered to students taking this course in 2013-2014. The surveys included questions about course content which were associated with student confidence levels on a 5-point Likert scale. In addition, the first pre- and final post-survey included a variety of questions, ranging from student interest and comfort with science, to expectations for performance during the semester. Pre- and post- scores on all content questions, along with confidence levels, increased significantly both years. Students indicated increased levels of comfort and attitude about science on the post-survey. Results indicate that discussion and hands-on experience with complex biological concepts in lecture, lab and discussion, centered upon a framework of major, relevant issues, can increase student understanding, attitude and comfort in the life sciences.

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