Developing a data management curriculum for graduate students in the natural resources

OBJECTIVE

E-science has created a need for new skill sets for graduate students managing, working with and curating their research data. How can librarians help teach data management skills?

METHODS

Librarians at Albert R. Mann Library collaborated with faculty in the Department of Natural Resources to determine educational priorities and deliver a one-credit special topics course in Spring 2013. Several assessment methods were used in order to determine the success of the instruction, including in-class active and collaborative learning exercises, post-class one-minute reflections, and a final survey.

RESULTS

Data Management, Data organization, Data quality and Documentation, Data analysis and Visualization, Metadata, and Data Sharing were identified as the top educational priorities, and the course included sessions on each of these topics. Enrollment – almost 30 students of all experience levels – was much higher than expected. The course was co-taught by the librarian and the faculty, with responsibilities divided fairly evenly. Post-class and in-class assessments allowed us to respond quickly to correct misunderstandings or provide additional information when necessary, and the final survey indicated an increase in the students' self-confidence in their skills and ability regarding every data management topic addressed in the course. As of Spring 2014, the course has been accepted by the curriculum committee, and will become a regular offering of the department.

CONCLUSIONS

Graduate students and faculty recognize a need for training in managing research data. Librarians can help to answer this need, providing real educational value for the institutions they serve.