Physical Geography- G210

Lab Science Course Assessment

The physical geography lab science course (G210) taught by faculty and academic staff in the Department of Geography and Geology is one of the most heavily enrolled lab science courses at UW-W. Frequently, this course is selected by non-science majors to fulfill their one lab science course requirement. It is designated as a General Lab science course (GL). The course also is a key recruiting course for potential geography majors and minors. Starting in 2003 the instructors of this course agreed to began a series of assessment procedures that measured the effectiveness of meeting the established learning objectives of the course. These are identified on the course syllabus in summarized form as:

1. Become familiarized with the tools used to view, interpret processes, and recognize change occurring in our physical geographic environment.

2. Develop an understanding of earth's physical landforms, and the processes controlling variations in weather and climate, soils, and plant communities around the world.

3. Provide a foundation upon which to build a better understanding of the human interrelationships with the physical environment.

A pre- and post-test scenario was developed where students were asked to complete a 15 question pre-test during the first week of the semester and then the same questions were imbedded on exams at different points in the semester or given as a post-test evaluation.

Results and Conclusions

The aforementioned assessment was completed during the academic semesters of 2003-05 (a total of four semesters). The report for the 2003 data is posted separately. Preliminary inspection of the results suggests an improving trend in the frequency of post-test correct answers (Table 1). This has occurred while the pre-test success has dropped slightly. Ongoing changes to the course content, including style of lecture delivery, updating of the textbook, introduction of class discussion pop quizzes, and more use of technology could be explanatory factors for the improvement of pre- vs. post-test performance. Many of these new approaches were based on results found from early assessment activity. However, the level of overall success on the post-test is still not considered sufficient by the standards established by the instructors. Further inconsistencies in rates of improvement for pre- vs. post-tests are evident when looking at individual questions and suggests that some learning objectives are being met better than others. Recent renovation of building and lab facilities, as well as faculty turnover and sabbaticals, thus resulting in temporary academic staff assistance, may be contributing factors. However, the current instructors are continuing to work towards ensure continued overall improvement in meeting the learning objectives.

Table 1

Average	% Pre-Test	% Post-Test	% Difference
Fall 2004	43.64%	59.89%	16.25%
Spring 2005	37.60%	60.78%	23.18%
Fall 2005	38.83%	66.67%	17.72%