

Assessment Based Improvement Report
Department(Unit): Physics
College (Division): Dean - College of Science

Assessment Result from UEP that Indicated Need for Improvement	Improvements Implemented	Semester
<p>Using funds provided by the provost at UTA a study was implemented in the freshman calculus based courses in physics. A questionnaire was developed for the courses PHYS 1443 and PHYS 1444. It probed the relationship between grades earned in the courses and the relationship that these grades had to 1) laboratory learning, 2) instructor chosen, 3) use of the physics clinic 4) the textbook used 4) use of online homework assignments 5) honors classes vs regular classes. The purpose of the study was to make recommendations so that the department could implement appropriate changes to improve instruction in these classes. The complete nine page report is available in the Department of Physics. This study was completed in the spring semester of 2004. The assessment clearly showed that use of online grading and the physics clinic improved grades. Students were happy with choice of texts and instructors, but did not rate the lab experience as high, although they found it useful.</p>	<p>As a result of assessment of PHYS 1443 and PHYS 1444 the Chair of Physics focused on the problem areas. The main problem is the failure rate in these beginning physics classes. Actions implemented in the fall of 2004:</p> <ol style="list-style-type: none"> 1) the number of tutors working in the clinic was increased and the hours of operation modified to serve more students; 2) new lab equipment was purchased to equip a second lab for each class to alleviate crowding of students and improve learning opportunities in the lab; 3) instructors were given graders to assist in implementation of the Texas online grading system and improve its utilization by the students. <p>Success of this implementation will depend upon getting poor students to take advantage of these changes. A follow up study will monitor success of this effort.</p>	<p>Fall-2004</p>

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