

The University of Arizona Teacher Course Evaluation (TCE) website states “Student ratings of instruction, properly constructed and administered, provide valid and reliable data for improving teaching as well as for documenting teaching performance for administrative review”. The website also states “Although ratings are necessary, they do not provide sufficient information for a comprehensive evaluation of teaching.”

Teacher course evaluation (TCE) data was gathered for S10, F09, and S09 semesters. These data come from student ratings using University of Arizona TCE questionnaires. In evaluating the Physics undergraduate courses, the scores were taken from the rating of “Overall Teaching Effectiveness”. The possible answers to questions range from 5 (outstanding) to 1 (poor). Generally, a score of 4.5 or better could be interpreted as outstanding.

We analyzed data from four sets of classes: junior level lecture and lab courses for physics majors, introductory courses for physics majors, introductory courses for engineering majors, and introductory courses for non-majors (except engineering). The junior level courses are important as they provide core knowledge to majors in mechanics, electromagnetism, and quantum mechanics as well as computing. The introductory courses are interesting as one can compare teaching effectiveness between the three tracks of introductory courses (majors, engineers, and non-majors).

The average score for Physics 3XX lecture courses was 3.91. The two highest ratings were 4.8 and the two lowest ratings were 2.9 and 3.2. This data show that teaching of junior level physics majors in the Physics Department is highly effective according to the students. We believe both the highest and lowest ratings are instructor dependent. However on average, this data provides evidence of strong teaching at the junior level in the Physics Department.

The average score for Physics 3XX lab courses was 4.43. The two highest ratings were 5 and 4.8 and the two lowest ratings were 3.7 and 4.1. This data provides evidence that the junior level lab courses are very effectively taught according to the students. Recall that generally, a score of 4.5 or better could be interpreted as outstanding.

The average score for Physics 1XX and 2XX introductory courses were 3.91, 3.79, and 3.81 for physics majors, engineering majors, and non-majors. The fact that the teaching effectiveness in introductory courses is rated slightly higher by physics majors than other majors is not surprising given their higher interest in the material. However the teaching effectiveness ratings for all three tracks are nearly the same. This is evidence that the Physics faculty and instructors treat introductory courses for engineering students and other non-majors with the same standards and effort as they do for Physics majors.

As concerns the introductory courses for engineering majors, the two highest ratings were 4.4 and the two lowest ratings were 2.5 and 3.5. The 2.5 rating was given to an instructor who is no longer with the Department. Other than that, the evidence suggests

that, on average, the teaching effectiveness is equally high for engineering majors as for physics majors.