

Exploring the links between Physics and Astronomy Education Teaching and Learning in the Philippines

Students consider physics to be one of the most prevalent and troublesome topics since they find physics to be a challenging course in high school and become more deceptive when they have it as an undergraduate course. The Rizal Technological University (RTU) in the Philippines offers undergraduate and graduate academic programs in astronomy. The university utilizes physics diagnostic tests to classify students' suitability towards the course as RTU houses the Philippines' most advanced optical telescopes and the Center for Astronomy Research and Development. The latter was established through the Department of Science and Technology to promote a research hub in the field of astronomy and space science, as well as providing support for research funding and scholarships. The study performed causal-comparative research design and analytics, the study revealed that when it comes to higher physics and astronomy classes, students with poor physics adaptation tend to get lower to failing grades. The findings of this study provide evidence of the link of physics and astronomy education in students' academic programs and its value from the previous learnings of students and teaching of teachers as a critical role in predicting student performance. Our study highlights that alumni are well-prepared to work as researchers and have the required analytical and research skills. The increased enrollment in the academic program demonstrates the validity of the above-mentioned statements, as it enticed students to pursue astronomy as their scientific career. Other efforts are discussed in detail in this paper.

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