

Abstract Submitted  
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**Enhancing a Solar Energy Teaching Lab** DAVID ERZEN, DENNIS KUHL, Marietta College — The purpose of this project was to improve a solar energy laboratory in an intro-level Energy Systems course taught at Marietta College. Current literature and physics faculty were consulted to develop enhancements allowing for further scientific inquiry. The lab handout was improved with the necessary information for students to contextualize the lab. The investigations included analyzing the power curve of a photovoltaic cell, the effect on power output due to temperature, and the effect on power output due to tilt angle. Improvements included the implementation of computer data logging allowing for larger, continuous data sets, and the construction of a measuring instrument that allowed students to adjust the tilt angle of a solar panel while keeping the axis of rotation constant. Generally, students with all different academic backgrounds appeared to be receptive to these modifications, synthesizing the content of the experiment for later practical use.

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