

Aircuity case study

Bloomsburg University of Pennsylvania

A simple student-run program powered by Aircuity saves \$22,000 a year.

In 2017 AIRCUITY, was installed throughout the Hartline Science Center, on the campus of Bloomsburg University. As a result, Bloomsburg immediately began saving energy which they could redirect back into the operating budget.

In 2019 they upgraded to Aircuity's latest platform. This enabled them to:

- ▶ View savings in real time
- ▶ Monitor fume hood usage
- ▶ Identify rooms with high airflows
- ▶ Identify rooms with poor air quality

Using this tool, they easily recognized that many fume hoods were being left open unnecessarily causing many thousands of dollars in lost energy savings.

A SIMPLE STUDENT-RUN PROGRAM

Aircuity and Bloomsburg came up with a simple program employing a part-time student intern to create a program to get the sashes closed and increase savings. The University hired senior engineering major, Roberto Reyes, who used Aircuity's tool and identified approximately 20 fume hoods that were left open and/or potentially not working properly.

Roberto's program uncovered 10 fume hoods that were malfunctioning in various ways and he worked with their controls vendor to get them fixed. Several of the 10 fume hoods were running at 100% flow even when the sash was closed due to a failing actuator. A few others were found to have a face velocity below the



Hartline Science Center

University's standards. Some fume hoods were purposely left open due to the requirements of the experiment being conducted and they were left in their current positions.

RESULTS

The remaining hoods had been accidentally left open while not in use and this was addressed through a program of communication with department heads and users. The strategy was simple and based on communicating 3 key items:

- ▶ If left open, the average fume hood will cost the University almost \$5,000 per year
- ▶ The average user is in front of the hood about 5% of a 24 hour day
- ▶ The University knows exactly where your sash position is at all times and where you rank relative to all other fume hood users.



Roberto used the Fume Hood Performance analytic in MyAircuity for the program.

The internship spanned about a month with Roberto putting in 10–15 hours a week. The bulk of his time, especially in the beginning, was spent coordinating with their controls vendor to get the hoods fixed. After that, Roberto was able to do a quick check of the fume hood performance metric on MyAircuity and an email to researchers working in labs where sashes had been left open.

“Aircuity’s analytics instantly highlighted fume hoods with mechanical issues that we didn’t know existed. We were able to get the hoods fixed to ensure a safer environment for researchers and help the university reach its full savings potential.”

Roberto Reyes, Senior Engineering Major
Bloomsburg University

ABOUT BLOOMSBURG UNIVERSITY

Bloomsburg University is one of 14 universities in Pennsylvania’s State System of Higher Education. The university serves approximately 8,200 students, offering comprehensive programs of study in five distinct colleges: College of Education, Zeigler College of Business, College of Liberal Arts, College of Science and Technology, and new Honors College.

This simple program run by the University’s intern increased Bloomsburg’s energy savings by \$22,000 a year, bringing the Aircuity savings in the Hartline Science Center to approximately \$160,000 annually.

ABOUT AIRCUITY

Aircuity is the 20-year leader optimizing ventilation through its patented indoor environmental quality (IEQ) platform, significantly reducing energy costs and improving the indoor environmental quality for occupants. As a result, commercial, institutional and lab building owners can lower operating costs, protect occupants and verifiably reduce energy use by as much as 60 percent. Headquartered in Newton, MA, Aircuity’s solutions have benefited organizations such as Google, Amazon, SUNY, Eli Lilly, The Durst Organization, the University of Pennsylvania, and the University of California-Irvine. For additional information on the company and its solutions, please visit: www.aircuity.com.

