

Late Nite Labs Case Study



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Challenge

- ▲ Offer general chemistry completely online, including labs
- ▲ Replace home labs kits that are expensive and limited in scope
- ▲ Customize labs to match specific course needs

Solution

- ▲ Web-based chemistry lab implementation
- ▲ Select labs from online library of ready-to-use labs, then customize as required
- ▲ Test labs with online students and compare with home kits

Results

- ▲ Course setup was easy, using the lab library and then customizing
- ▲ Students enjoyed online labs, preferring them to home kits
- ▲ Plans to expand to second semester of general chemistry

General chemistry course at Rio Salado College is now completely online; students prefer Late Nite Labs to chemistry kits at home

BACKGROUND

Distance learning is one of the fastest-growing areas in higher education, but for chemistry instruction, it is one of the most challenging. For teachers like Lorelei Wood, chemistry supervisor at Rio Salado College, finding ways to train students in the fundamentals of chemistry – such as proper experimental procedure and calibration of instruments – can seem impossible from thousands of miles away.

Rio Salado College is a Maricopa County (AZ) Community College that offers hundreds of courses through distance education, and that number is expanding rapidly. Lorelei needed to find a way to convert many of the hybrid labs – labs done partly at home and partly in the college's labs – to an online format, so that the entire general chemistry course could be completed online.

"What I was looking for was a way to ensure that the program still had national accreditation," she says. "I needed the option for students to take prerequisites online, and to take these classes at a distance."

SOLUTION

Late in 2005, Lorelei was introduced to Late Nite Labs. She wasn't sure at first that the laboratory simulation technology would be enough to replace her department's existing labs. But as she became more familiar with the solution, she realized that she draw from a comprehensive list of labs in the Late Nite Labs library and easily customize the labs to fit the needs of her course.

"I did the demo and was very impressed," she says. "What I really like is that you can go in and modify the labs for your own use."

Late Nite Labs is the perfect solution for schools and organizations looking to provide students with highly-detailed chemistry instruction without adding additional class or lab time. For Lorelei, the ability to customize labs offered several significant benefits.

Lorelei found nearly everything she needed in the library of ready-to-use labs provided by Late Nite Labs. All she had to do was tweak some of them – change a procedure here, swap a reagent there – and her course was ready.

"I didn't know how we would ever get these courses online," she said. "I could give the students an experiment to do at home, like a titration of ammonia and vinegar, but I couldn't teach them how to use a burette. How would I ship one to them?"

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About Late Nite Labs

Late Nite Labs develops innovative applications of simulation technologies for education and training. It's all about using technology to gain an edge in science education. Visit us at www.latenitelabs.com



FOR MORE INFORMATION

Call us at 800-262-0518 or send an email to sales@latenitelabs.com

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RESULTS

Last year, Lorelei rolled out the Late Nite Labs program to all fifty students in her online chemistry class. She found that more and more students wanted to sign up, from as far away as Alaska and Egypt. Lorelei says Late Nite Labs helps further the goal of the college to help students who have other obligations – family, work – obtain a quality education.

"We are all about giving our students more choices," she says. "We serve our students by being flexible, dynamic, convenient and economical. Late Nite Labs helps us reach all of those objectives."

In that same spirit of choice, Lorelei has given students in the online version of CHM151–General Chemistry the option of doing wet labs at home with a kit and common chemicals, or performing a similar set of virtual experiments with Late Nite Labs. Initially, less than half of the students chose the Late Nite Labs option, but that has now increased to around 90% of all online course participants.

Lorelei also found that some students who opted for the wet-lab option with the at-home kit also wanted to use the Late Nite Labs program. "One student realized she might be better served using Late Nite Labs," Lorelei says. "She was a little shaky with the procedures before using the program, but she became more confident and was able to complete the wet-labs after practicing first with Late Nite Labs."

When Lorelei found that two of her students were US Army reservists stationed overseas with unreliable access to internet service, Late Nite Labs stepped in and created special CD-ROM's with all of the course's labs so that these soldiers could work offline and email their reports in later. The two students were then able to successfully complete the online course.

Lorelei intends to expand the use of Late Nite Labs even further. Plans are underway to offer the second semester of the General Chemistry course online with virtual labs from Late Nite Labs in 2008. Even she is surprised by the success of Late Nite Labs with her students and how much she has come to depend on the program.

"When I think I'm going to have to write my own lab for the Web, I always say 'Oh my gosh, Late Nite Labs has a similar lab or the same lab in their library,'" she says. "We can now easily repeat the chemistry lab experience in a distance education setting".