



# ALEKS® Case Study

University of Oregon | Eugene, OR

## Why ALEKS was Chosen

Dr. Deborah Exton and colleagues struggled supporting General Chemistry students with a wide range of preparation. They decided to use ALEKS for the course because they could also assign ALEKS as a summer preparatory assignment to sort out students who need extra review before starting Gen Chem in the fall. Students have the opportunity to refresh concepts from high school during the summer. Since implementing ALEKS during the summer and in the General Chemistry courses, the D, F or withdraw (DFW) rate has decreased, more students say they feel prepared for General Chemistry, and more students succeed in future chemistry courses. Additionally, instructors can spend less time on remediation.

## ALEKS Implementation

Students self-select into a lecture-based course that meets twice per week. ALEKS is worth 8% of the total grade, which is 3% for the summer preparatory assignment and 5% for objectives and pie completion during the term. ALEKS topics are assigned before the content is covered in lecture in a modified flipped classroom approach. Students at the University of Oregon take a pencil and paper, multiple choice, common exam.



**Course Name:** General Chemistry

**Implementation:** Lecture-Based Course; Remediation/Prep

**Course Setup:** Summer Preparation to General Chemistry using ALEKS with Silberberg & Amateis

**Instructor:** Deborah Exton, PhD

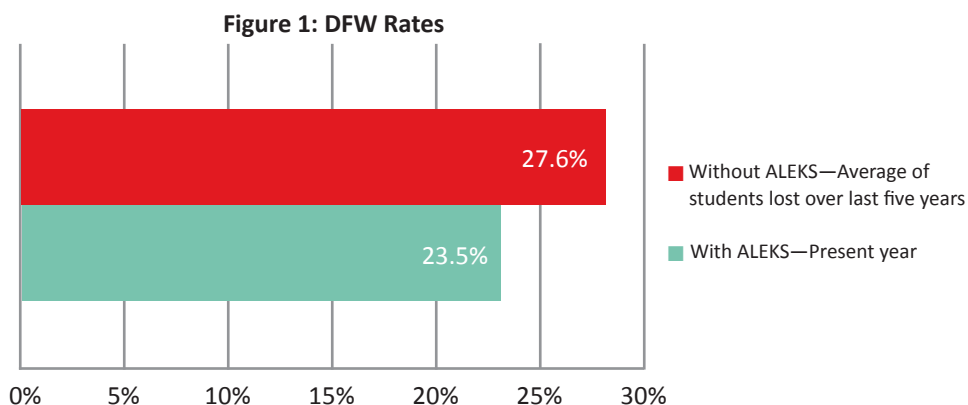
**Enrollment:** 700 average course enrollment

**"Students are better prepared for our general chemistry course thanks to ALEKS."**

– Deborah Exton

## Results Achieved

Exton shares that there is a shift upward in grade distributions and a decrease in the number of students with D's, F's and withdrawals. Prior to implementing ALEKS in 2016, the five-year average loss of students from the fall terms to the winter terms was 27.6%. In the 2016-2017 school year, the average loss dropped to 23.4%—a difference of 4.2% (Figure 1). “We feel this improvement is statistically significant, and,” Exton says, “persistence in the General Chemistry sequence has also improved.”



## Conclusion

Exton believes that the summer preparatory assignment has had the largest impact in student retention and success. She says, “When students arrive in class on the first day, they have already reviewed the concepts from high school chemistry and are better prepared with the material.” Exton also appreciates that ALEKS holds students accountable for topics as they progress through the course.



**Deborah Exton** is a Tenured Senior Instructor(II) at the University of Oregon, an AAU Ph.D. granting institution, where she has been since 1993. Her primary teaching responsibilities are in the General Chemistry program and she is also the General Chemistry Coordinator for the department. She received her B.S. from Metropolitan State College of Denver (1987) and her Ph.D. in physical chemistry from the University of Denver (1992). She was named a University of Oregon

Williams Fellow in recognition of her outstanding commitment and contributions to undergraduate education.

## Institution Profile:

The University of Oregon is a public flagship research university in Eugene, Oregon. Founded in 1876, the institution's 295-acre campus is along the Willamette River. The University of Oregon is one of just two schools in the Pacific Northwest selected for membership in the prestigious Association of American Universities, a consortium of 62 leading public and private research institutions in the United States and Canada.