Wooster School

Competency-Based Chemistry Classroom

LOCATION Danbury, CT
PROFILE K-12 Grade Independent School
STUDENT IMPACT 400 Students

Founded in 1926, Wooster School has a long history of putting students and their learning at the center of all that they do. As a member of the Mastery Transcript Consortium, Wooster is among a number of forward-thinking schools collaborating to create a high school transcript that reflects the unique skills, strengths, and interests of each learner. Committed to making learning personal, meaningful, visible, and fun, Wooster is using the Altitude Learning platform to facilitate their continued progress towards more learner-centered, competency-based education.

Approach

- Utilize the Altitude Learning Platform in grade 3-12 science classrooms.
- Deeply explore learner-centered practices and how technology enables the learning model.

Goals

- Document student learning and progress towards competencies.
- Enable students to demonstrate who they are as learners and the skills developed from a variety of learning contexts and experiences.
- Manage student learning and personal pathways to empower student agency, with teachers as facilitators and co-constructors.

Results

- Shift from “How many assignments have you completed?” to “Have you mastered all of your assignments?”
- Increased time and space for daily, targeted progress check-ins with students.
- Flexible pacing has enabled students to get out of class exactly what they need to move forward.
- Expanding use of the Altitude Learning Platform to additional grades and subject areas for 2019-20 school year.

Christopher Priedemann, a high school chemistry teacher at Wooster known as "Mr. P," is using Altitude Learning to support a competency-based classroom using Next Generation Science Standards, New York State Science standards, and Character Lab strengths. He wanted a solution for building learning pathways, tracking student progress, and providing meaningful feedback in an efficient manner.

With support from Altitude Learning's partner success team, Mr. P built his competency-based curriculum into the Altitude Learning Platform to offer flexibility in the time and method in which students demonstrate their learning toward specific competencies.

A Competency-Based Science Lab in Action

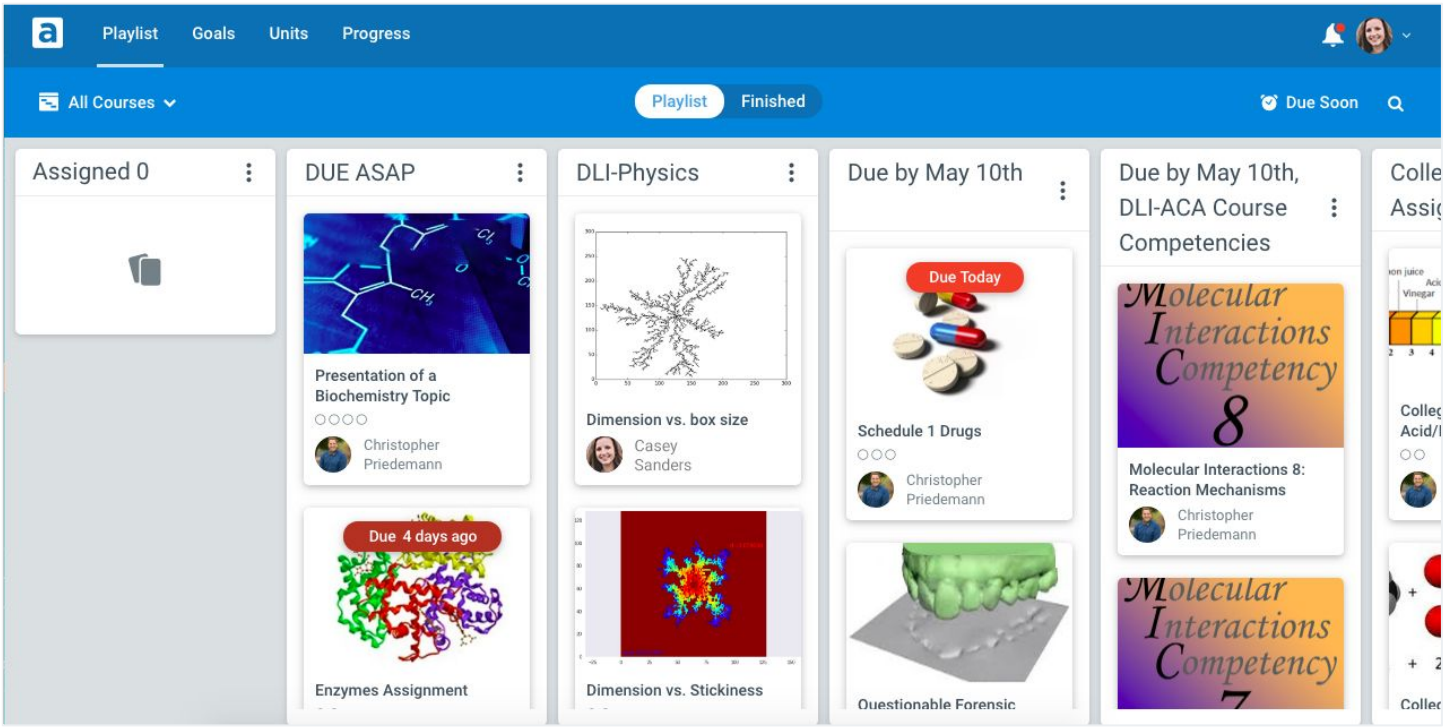
Mr. P's high school chemistry class is abuzz with students driving and documenting their own learning. While some students revisit knowledge inputs such as lectures and reference materials, others push ahead to new areas of learning, fill a gap due to absence, or even complete yesterday's work because they made a time management choice to prioritize health and sleep over chemistry homework. In all cases, however, students are demonstrating their learning toward key course competencies and their teacher has full, easy-to-access visibility into their progress through the Altitude Learning Platform.

Each learning experience begins with core cards, which contain a recorded lecture, check for understanding questions, a checklist of tasks, and a worksheet. Students are responsible for watching the lecture and answering the check for understanding questions as homework. The tasks and worksheet are the focus of class time, which begins with a 10- to 15-minute review of the previous night's lecture.

> *"The Altitude Learning Platform enhances the feedback loop by using technology to better personalize what teachers assign to students and what students provide as evidence of their learning. The very simple, but most important, end goal is to create MORE time for teachers to work individually and in small groups with students, by reallocating time that is currently spent managing the tyranny of the "whole group" approach.*
>
> **Matt Byrnes**
> Wooster Head of School

Next, students are free to work on any cards assigned to them.

Most cards are aligned to specific competencies. When a student submits a card by completing it or providing evidence of their choice that demonstrates the card competency, it serves as an artifact for evaluating individual mastery toward each competency. With over 400 instances of objectives tagged to units or assignments, Mr. P has visibility into a breadth of work from each student for each course competency. This allows Mr. P and his students to plan next steps in their learning.



As advanced chemistry students complete cards on their personal playlist, their work is linked as evidence to the card's tagged competencies, providing a comprehensive view of student performance.

The bulk of the work period is designed for students to use at their discretion based on their learning path and pace. As they submit their work, the Altitude Platform keeps a "paper trail" of student progress, allows for actionable feedback, and serves as a reference to inform daily student-teacher check-ins. Work that meets the expectations of the competency statement is approved and removed from the student's playlist. Work that does not meet the standard is sent back for review and revision.

While student pacing and methods for demonstrating competency vary, learning remains constant as every student ultimately demonstrates progress toward each competency. Mr. P has seen benefits beyond academics; anxiety has decreased as students are empowered to balance their workload, student-teacher conferences are more frequent and targeted, and the emphasis has shifted from how much has been "covered" to what has been "learned."

"Altitude Learning allows you to quickly see who has submitted assignments and prioritize the feedback you give on a daily basis to those who really need it."

Chris Priedemann

Wooster School Science Teacher

This culminating molecular chemistry project was part of a unit with six tagged learning objectives related to properties of matter, forces and interactions, and character strengths such as curiosity.

From a teacher perspective, tracking student learning and progress has become much more streamlined now that Mr. P has the tools to easily see who has submitted assignments, prioritize feedback to those who really need it, and find specific student assignments in order to provide meaningful feedback.

See how Altitude Learning is enabling educational transformation for students everywhere.