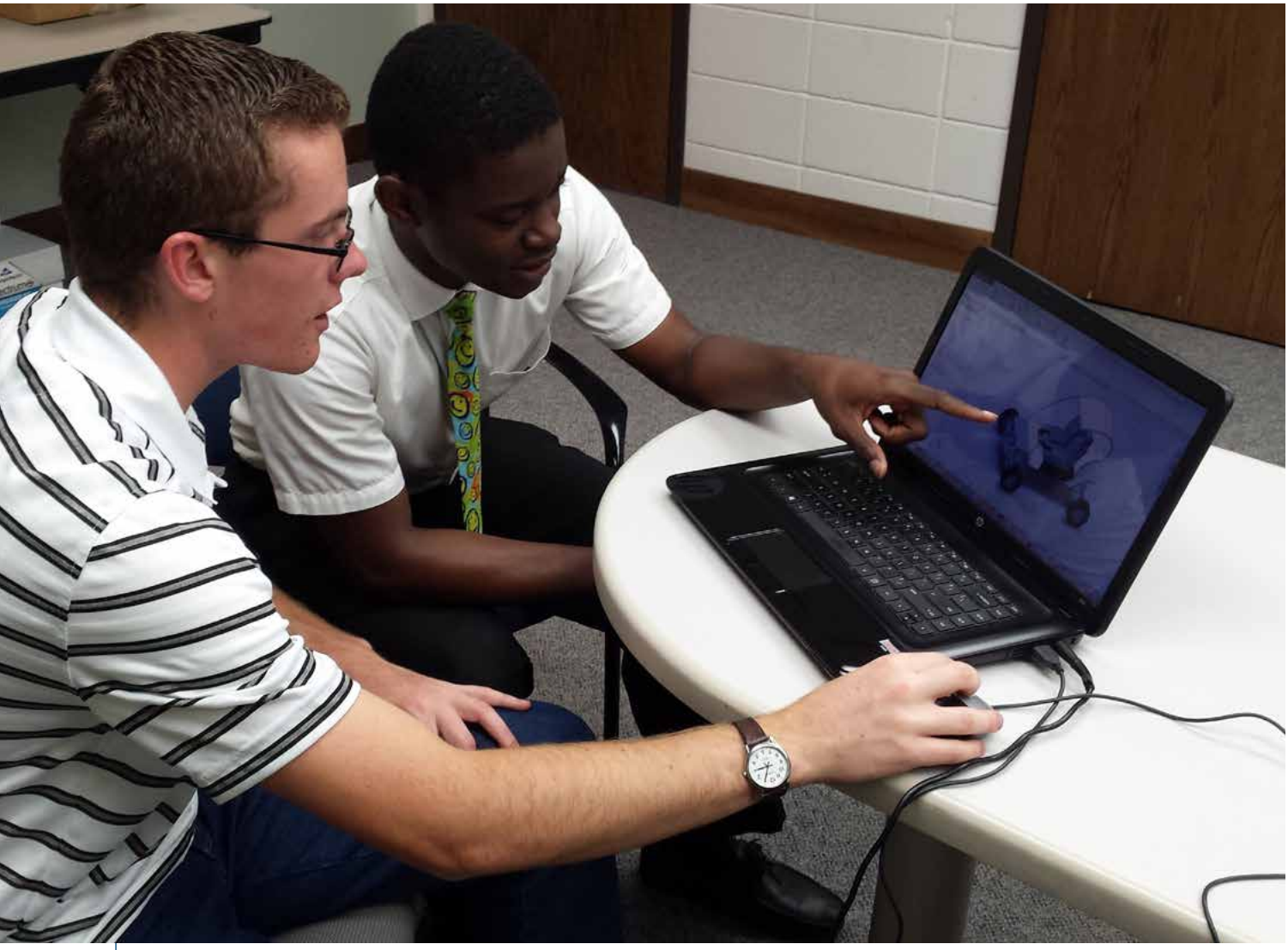
DASSAULT SYSTEMES

SOLIDWORKS

BRIGHAM YOUNG UNIVERSITY – IDAHO

HELPING GRADUATES LAND ENGINEERING JOBS WITH SOLIDWORKS EDUCATION EDITION



BYU-Idaho decided to standardize on SOLIDWORKS Education Edition 3D design software for its mechanical engineering courses to give students a deeper experience in a single CAD system—instead of light experience in multiple CAD packages—to extend the reach of the engineering curriculum and better prepare students for employment.

BYU IDAHO

Challenge:
Provide students with a fuller, richer CAD experience that better prepares them for the greatest number of engineering job opportunities in private industry.

Solution:
Implement SOLIDWORKS Education Edition software.

Benefits:
- Delivered training in CAD system with most job opportunities
- Enabled students to run full design and engineering suite on their laptops
- Provided deeper CAD and engineering experience
- Incorporated certification in grading to improve employment prospects

The largest private four-year university in Idaho, Brigham Young University-Idaho (BYU-Idaho) is committed to providing a quality education for students of diverse interests and abilities. Through its affiliation with The Church of Jesus Christ of Latter-day Saints, BYU-Idaho seeks to create a wholesome learning environment that helps prepare students for lifelong learning, employment, and their roles as citizens. The university operates seven colleges and 33 departments—offering 25 associate's degrees and more than 100 bachelor's degrees—with an annual enrollment of 31,900 students.

Until recently, the university's Department of Mechanical Engineering has offered instruction in several 3D CAD packages as part of its mechanical engineering curriculum. However, this approach provided light experience in multiple CAD packages rather than the deep experience in a single design system that serves students better over the long term.

The combination of employment market research and the desire to orient students toward a more complete engineering experience prompted BYU-Idaho to look into standardizing on a single 3D CAD system for its freshman Engineering Graphics and sophomore Mechanical Engineering (ME) Design I courses, according to Department Chair Greg Roach. "Our research regarding graduate placement at companies, as well as job listings on the web, helped us determine the 3D CAD system that provides the greatest employment opportunities," Roach explains.

"In addition to teaching a CAD package that better prepares students for employment, we wanted software that empowered students to leverage their own computing capabilities by standardizing on a design and engineering package that students can run on their laptops," adds Professor Aaron Schellenberg.

"We found the scalable application that we needed in SOLIDWORKS® Education Edition software," stresses Professor Garth Miller. "After discovering that many companies use SOLIDWORKS and that SOLIDWORKS is required for most available engineering jobs, we decided to standardize on SOLIDWORKS to establish a solid baseline in our early-level courses. We've also found SOLIDWORKS to be more intuitive, especially from the manufacturing side."

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— Garth Miller, Professor

SUPPORTING DEEP DIVE INTO ENGINEERING

With 1,150 mechanical engineering majors—as well as other students with an interest in CAD technology—BYU-Idaho acquired 2,000 SOLIDWORKS Student Engineering Kit and an unlimited number of SOLIDWORKS Student Design Kit licenses to support its freshman and sophomore courses. "The main reason that we standardized on SOLIDWORKS for our first two required classes is to allow students to delve deep and become proficient with the software," Miller notes.

"After those courses are completed, students have the freedom and flexibility to use the CAD system of their choice, but the thinking is that the more thorough exposure to SOLIDWORKS software will allow them to focus on learning and applying engineering principles in their third and fourth years, rather than continuing to learn how to use CAD tools," Miller adds. "This way, students gain the SOLIDWORKS skills that they need to pursue employment opportunities, the majority of which require SOLIDWORKS experience."

"The implementation of SOLIDWORKS software and certification testing is helping us achieve our departmental and university goals while simultaneously helping students build their careers."

— Aaron Schellenberg, Professor

FACILITATING ONLINE LEARNING, LOCAL INTERNSHIPS

By standardizing on SOLIDWORKS software for its initial engineering courses, BYU-Idaho satisfies two additional objectives: extending its mission to its online global community of students and providing students with the skills that companies value in interns. "We have 40,000 students worldwide who are enrolled online or through our Pathway Program (a low-cost educational opportunity that combines online courses with local gatherings through which students earn college credits) and growing demand for students with certified SOLIDWORKS skills to work as interns," Roach points out.

"Our sharpened focus on SOLIDWORKS software not only opens up internship possibilities for students, it advances educational and employment opportunities for students all over the world," Roach adds.

RAISING GRADING BAR WITH CERTIFICATION

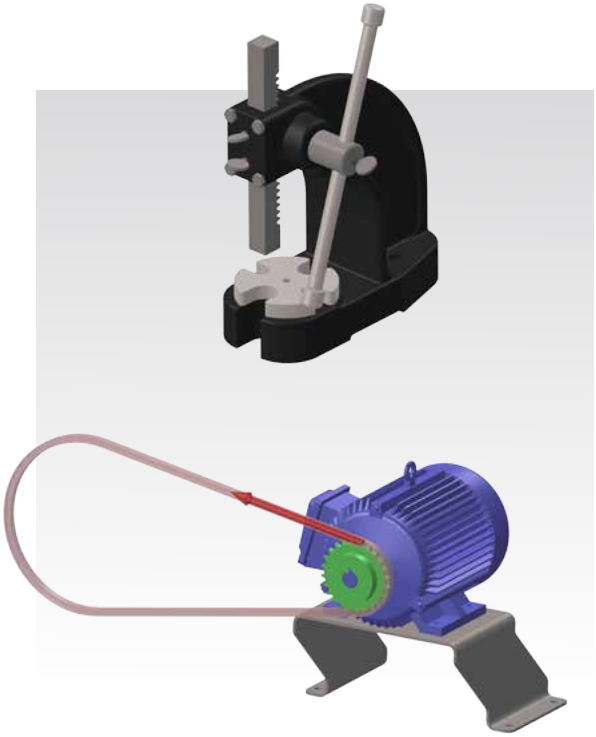
BYU-Idaho has also incorporated SOLIDWORKS certification testing into its grading system, compelling students to gain SOLIDWORKS skills to earn a high grade as well as obtain a marketable certification. In the freshmen Engineering Graphics course, students who choose not to take the certification exam earn a grade no higher than a C, while those who prep for and pass the Certified SOLIDWORKS Associate (CSWA) exam can earn a B. Those who prep for and pass the Certified SOLIDWORKS Professional (CSWP) exam can earn an A.

"We're initiating this innovative approach to change the dynamic between teacher and student, while providing students with an industry-recognized certification," Schellenberg says. "With this approach, the instructor serves more as a consultant who is helping students build their careers than in the traditional role. The implementation of SOLIDWORKS software and certification testing is helping us achieve our departmental and university goals while simultaneously helping students build their careers."

Focus on Brigham Young University–Idaho
VAR: GoEngineer, Boise, ID, USA

Headquarters: 525 S. Center Street
Rexburg, ID 83460
USA
Phone: +1 208 496 1411

For more information
www.byui.edu



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Americas
Dassault Systèmes
175 Wyman Street
Waltham, Massachusetts
02451-1223
USA

Europe/Middle East/Africa
Dassault Systèmes
10, rue Marcel Dassault
CS 40501
78946 Vélizy-Villacoublay Cedex
France

Asia-Pacific
Dassault Systèmes K.K.
ThinkPark Tower
2-1-1 Osaki, Shinagawa-ku,
Tokyo 141-6020
Japan