



## Iowa State University Brings Autodesk Inventor-based Curriculum to Community Colleges in the Midwest

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SAN RAFAEL, Calif., Mar 12, 2003 (BUSINESS WIRE) -- Autodesk, Inc. (Nasdaq:ADSK), the world's leading design software and digital content company, today announced that Iowa State University (iastate.edu) is using Autodesk Inventor(R) software as an integral part of its curriculum for two courses within the Department of Industrial Education and Technology.

Responding to a significant workforce shortage of engineers across the U.S. and particularly in Iowa and South Dakota, the university is also heading a National Science Foundation-funded (NSF) "Competitive Manufacturing by Design" project to encourage more community colleges to enhance manufacturing curriculum with course modules developed using Autodesk Inventor software. Iowa State is partnering with two local educational institutions -- Southeast Technical Institute and Iowa Western Community College -- for the NSF project. During the three-year pilot and field-test project, the "Competitive Manufacturing by Design" project partners are sharing the benefits of integrating Autodesk Inventor software into the curriculum with at least 30 instructors in nine manufacturing-related community colleges in the Midwest. Currently Iowa State University and its partners are using 125 licenses of Autodesk Inventor software.

"An outcome of this project will be larger numbers of better prepared workers that will lead to a more competitive U.S. manufacturing industry. The eventual impact for students will be a heightened awareness of the interaction between design and manufacturing, and the skills to effectively operate in a team environment," said Joseph Chen, professor and director of Graduate Study in the Department of Industrial Education and Technology at Iowa State University. "Autodesk Inventor software helped us achieve this goal because of its powerful functionality for large assembly performance and adaptive design as well as its remarkable ease of use."

### Iowa State Coursework

The ease of use of Autodesk Inventor software is ideal for teaching 3D mechanical design. Iowa State University uses its site license of Autodesk Inventor software for its "Introduction to Design" course (ITEC 120) for freshman students and for its "Advanced Design and Manufacturing" course (ITEC 502) for first year Master of Science students who do not have strong design backgrounds. Students in these classes can use Autodesk Inventor software to check their designs, make AVI files to present their designs, perform parametric solid modeling, and revise their designs more effectively. The advantage of Autodesk Inventor software is that the application does not stand in the way of the students' design work. Autodesk Inventor software allows instructors to teach the mechanical design process using parametric solid modeling tools, which facilitate a very short learning curve. Although competitive programs are similar in terms of the power that they offer, Autodesk Inventor is developed in a way that enables modeling concepts to get across to students in a much quicker fashion.

Students see the benefits of learning 3D design and modeling by using Autodesk Inventor first, before learning 2D detail drawing. Moreover, students better understand design before learning other techniques, such as geometric tolerance and three-side view.

### NSF "Competitive Manufacturing by Design" Project

Recent changes in the global business environment dictate the need for engineers to obtain new skills in design-for-manufacturability, parametric solid modeling, teamwork, and communication. By advancing the mechanical design programs at community colleges through curriculum designed with Autodesk Inventor software, Iowa State University's Department of Industrial Education and Technology and its partners are hoping to improve the way manufacturing education is taught. The project also focuses on increasing the pool of qualified applicants to these programs. Four flexible course modules and instructor-training materials developed using Autodesk Inventor software have been introduced into a wide range of existing curricula. These modules integrate design-for-manufacturability, teamwork skills, and parametric solid modeling content to improve the efficiency and effectiveness of instruction.

Avatech Solutions, Inc., is authorized by Autodesk as an Authorized Educational Reseller (AER) to sell products and services to post-secondary educational institutions and students in 48 U.S. states. Avatech Solutions provided Iowa State University with the initial recommendation of using Autodesk Inventor software to develop their educational curriculum, and helped match the university with educational institution partners. Avatech application engineers provided "train the trainer" instruction for the program teachers and Avatech personnel have an ongoing advisory role, assisting with initial and future curriculum needs.

### About Autodesk

Autodesk is the world's leading design software and digital content company, offering customers progressive business solutions through powerful technology products and services. Autodesk helps customers in the building, manufacturing, infrastructure, digital media, and wireless data services fields increase the value of their digital design data and improve efficiencies across their entire project lifecycle management processes. For more information about the company, see [www.autodesk.com](http://www.autodesk.com).

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