

North Carolina State University

Customer Success Story

Autodesk® AliasStudio™

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—Spencer Barnes
Master of Industrial Design student
North Carolina State University

Innovation in Action at North Carolina State

Industrial Design Department Uses Today's Best Tools to Foster Leaders of Tomorrow



Bugatti image created by Rhys Harwell

It's not surprising that a university with more than 500 patents developed by faculty is a nationally recognized leader in science and technology. Ever since its beginnings in 1887, North Carolina State University has educated innovative thinkers and leaders. In the department of Industrial Design, faculty pursuing research are teaching the same tools used by top industry experts to help ensure students are prepared not just for today's careers, but for those of the future as well.

For the past ten years, industrial design students have been learning and honing their design skills using Autodesk® AliasStudio™ software, a premier industrial design tool used by virtually every car company, leading design consultancy, and consumer product company in the world. According to Spencer Barnes, master of industrial design student at NC State, AliasStudio enables students to produce iterative variations of their design ideas in a quick and efficient manner and with a professional level of quality.

Mastering the Basics

"Students find AliasStudio to be very intuitive and easy to learn," says Barnes, who, along with completing his own studies, teaches industrial design courses at the university. "Using the software, students develop creative ways of solving problems."

Undergraduate and graduate design students learn AliasStudio in two capstone technology courses: Digital Product Modeling and Advanced Digital Product Modeling. Students use the software to visualize ideas and produce rapid prototypes. Some non-design students pick up the courses as well, including those studying engineering.



Phone image created by Steven Brockmann

Autodesk®

Digital design for future success

“Once you learn AliasStudio, you can work with anything,” says Barnes. “And it provides an easy transition for the development of ideas from traditional media like pens, pencils, and markers.”

AliasStudio is the primary content and technology solution taught in these two courses. In the Digital Product Modeling course AliasStudio is the sole topic. For one semester, students learn the basics of modeling and the basics of the software. In the Advanced Digital Product Modeling course, students are introduced to workflows and the modeling of complex surfaces. This course simulates the work students will perform once they are on the job.

“We also use AliasStudio in 90 percent of all of the industrial design studio courses,” adds Barnes. “Once students understand the basics, they are capable of and motivated to explore its powerful features in a variety of scenarios.”

Learning Beyond the Classroom

Over the past five years, NC State students have earned more than 100 national scholarships, fellowships, and grants. Since 1980 more than 50 companies have spun out of NC State. For these students, school is not just about memorizing facts and studying theories; it is about taking their learning to the next level and challenging themselves with complex, real-world problems.

NC State’s industrial design students are designing bright futures for themselves, with many of them going on to work at leading companies such as Industrial Light & Magic, Nike, Michelin, Hewlett-Packard, and Procter & Gamble, to name just a few. Then there are students, such as Barnes, who continue with graduate studies and land teaching positions at prestigious universities such as Carnegie Mellon and Cranbrook.

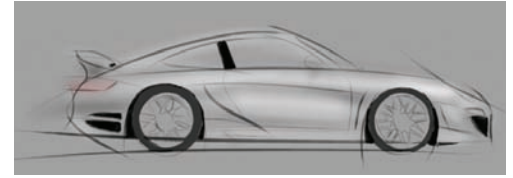
Barnes recently conducted research of his own about teaching students how to draw in a distance education environment. Using interactive display tablets and AliasStudio software’s drawing capabilities, he was able to successfully teach design drawing to undergraduate and graduate industrial design students via distance education. “I was able to teach them as though they were drawing with real markers and paper,” he says.

Barnes’s projects always contain real-world challenges for his students. For example, he recently had them create functional cell phone casings and then model a car that was currently on the market. “Both projects consisted of research on current market models, drawings done in AliasStudio using an interactive display tablet, models and renderings created in AliasStudio, and 3D physical models,” explains Barnes. “AliasStudio made these projects simple to teach and for students to learn. I’m confident now they could take on any project.”

New Challenges

Never one to sit back and feel satisfied with past achievements, Barnes mirrors NC State’s entrepreneurial spirit and desire to continue pushing the envelope. He is already thinking about where to take the technology next.

“I started out learning Maya and then transitioned into Studio, and I see interesting opportunities for integration between the two solutions,” explains Barnes. “I would like to try integrating AliasStudio into some of the animation courses that are taught here, because of its ability to create nonorganic surfaces.” He finds the transition between AliasStudio and Autodesk® Maya® software smooth and is always on the lookout for opportunities to try new things.



Porsche sketch created by Christine Beaucamp

“I will also continue to research ways in which AliasStudio can be used to teach people to draw, model, render, and animate in blended and distance learning environments,” continues Barnes. “And finally, I would like to get certified to train individuals and other instructors in AliasStudio and Maya.”

With his passion, dedication, and creativity, there’s no doubt Spencer Barnes can achieve the kind of success NC State hopes all of its students will experience.

To learn more about Autodesk AliasStudio, visit www.autodesk.com/aliasstudio.



Porsche image created by Christine Beaucamp

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