Create New Tool?
Drafting, Machining Students Make It Look Easy

Adam Self, department head of Computer-Integrated Machining, had a problem. The band saw used in his campus machine shop worked great when cutting averagesized metal pieces that could be secured in a normal vise. But when trying to shave excess metal from a piece very small or uniquely shaped, it was nearly impossible to keep the piece secured on the band saw.

What Self needed was a specially-made “add-on” tool that would not only hold smaller pieces in place for cutting, but could be adjusted to a range of various sizes.

Adam Self didn’t have to look far to find a solution because that’s the premise machining students and those in Mechanical Drafting Technology have been addressing together for several years. The partnership between these disciplines provides that student machinists make a product based on designs created by drafting students.

Last year Dr. Bob Owen, department head for Mechanical Drafting Technology, explained to both classes how the marketplace has changed, how employees today in different industrial departments must work together to create a product.

“Teaching students how to work together with individuals from different disciplines can be almost as important as the actual skills they learn,” says Dr. Owen.

Questions, possible solutions, and consultation among students and instructors filled an hour last year. Drafting students put together designs for a prototype that was presented to Adam Self and his machining students. The design selected was subsequently used by machining students to guide them as they built the piece in the shop.

Owen said that communication between both disciplines needs to remain fluid. “The question for us in drafting becomes, yes we can draw it, but can it be built? That’s why this is good to work together, to have students in both programs get together and pose questions to each other. What’s most important is that this is how the real industrial world should be operating in order to be more competitive.”

A few years ago, machining and drafting programs formed a collaborative partnership they titled Geo Designs for projects that utilize the skills of both. Two desk clocks were designed and built as joint projects.

This type of collaboration is called Concurrent Engineering, says Dr. Owen, and actually is the opposite of how many industries operate today, with technicians in different divisions never consulting one another. Owen and Self, however, believe it’s important to teach their students how to collaborate in or-
Welcome New Employees

Cyra Kussman has joined the College as a Nursing instructor after working 24 years as a Registered Nurse at Alamance Regional Medical Center in Burlington. She has taught part-time in nursing at ACC, and as an associate clinical instructor at Duke University School of Nursing. She has a bachelor's in Nursing from the Deaconess School of Nursing in St. Louis, Missouri, and a master's in Nursing from UNCG.

Ervin Allen Jr. is the new director of the Small Business Center at the Dillingham Center. He replaces the retiring Milele Archibald. Since 2006, Allen has been President/CEO of The Synergos Group, Inc. Previous experience includes Director of New Business Development at 3-C Institute for Social Development, and Technology Counselor with NC Small Business and Technology Development Center. His business ownership experience also includes past ownership and operation of three KFC restaurants, one PIP Printing unit, and two Quiznos Sub restaurants. Allen has a bachelor's in Business Administration/Economics from NC Central University; MBA in Marketing/Finance from Babcock Graduate School of Management, Wake Forest University; and MSM in Entrepreneurship and Technology Commercialization from NC State University.

Student Activities Calendar

‘GOING GREEN’ PRESENTATION. Mon., Sept. 9: 1 p.m., Room 230 (near Culinary kitchen).

SGA MEETING. Mon., Sept. 9: 11:30 a.m., Room 230 (Student Center).

ACC PANTRY FOOD DRIVE. Through end of August. Donations of canned goods and nonperishables can be brought to Room 228 or 229 in the Student Activities Center.

CHEAP MOVIE TICKETS. Movie tickets for Carousel Theatre (Alamance Crossing & Greensboro) available for $6 each at cashier’s window, Student Activities Center.

COLLEGE/NFL PICK’EM GROUPS. Go to ESPN.com for a chance to win gift certificates. Group Name: AlamanceCommunityCollege & Password: ACC2013.

STUDENT GOVERNMENT ASSOCIATION (SGA) IS LOOKING FOR FOUR STUDENT SENATORS to assist this year. Senators will help plan upcoming events, discuss student issues, and assist with programs and events throughout the year. Interested students should email John. Evans@alamancecc.edu.
Announcing ACC’s 2013-14 Student Ambassadors

- Kimberly Calvey (senior ambassador), Culinary Arts, nominated by Dr. Clara Vega (Humanities Dept. Head)
- Carrie Johnson (senior ambassador), Nursing, nominated by Rosa Bilbao (Spanish instructor)
- Mairit Dunn, University Transfer, nominated by Rosa Bilbao (Spanish instructor)
- Kristen McCavley, University Transfer, nominated by Perry Hardison (Humanities instructor)
- Deborah Mendez, Pre-Nursing, nominated by Courtney Doi (English instructor)
- Jaclyn Moseley, Criminal Justice, nominated by Ron Hall (Criminal Justice Dept. Head)
- Dustin Poe, Culinary Arts, nominated by Culinary Arts faculty
- Evelyn Rivera, University Transfer, nominated by Lori Allison & Janice Lovely (Human Resources)
- Leah Shepherd, University Transfer, nominated by Dr. Clara Vega (Humanities Dept. Head)
- Jeffrey Webster, Horticulture Technology, nominated by Valerie Whitley (Skills Lab Office Assistant)
- Alfred Williamson, University Transfer, nominated by Rosa Bilbao (Spanish instructor)
- Allie Woody, University Transfer, nominated by Perry Hardison (Humanities instructor)

SECU Partners with College for New Continuing Education Scholarship

ACC has partnered with the NC State Employees Credit Union (SECU) to offer a new scholarship program for students in continuing education (non-credit) programs that lead to a state-regulated or industry-recognized credential.

Students in programs that do not result in college credit typically do not have scholarships or financial aid available to them. This new scholarship is designed to help remove some of the financial barriers to students who enroll in programs that prepare them for employment in fields such as emergency medicine, law enforcement, fire protection, or nursing assistant.

Five scholarships in the amount of $750 each will be available every six months.

Eligible applicants must be a U.S. citizen and North Carolina resident who fall into one of the following target groups: unemployed insurance recipients, unemployed or under-employed adults, military veterans and spouses, or members of the NC National Guard.

ACC’s Continuing Education department is currently accepting applications for the second half of 2013. Call 336-506-4301 for more information.

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der to make a better product. While several student teams in drafting came up with designs for the band saw tool, the one selected was designed by a team composed of Jessica Athey, James Hollister and Zack Barlow.

“We were given the range of dimensions needed, what would work and what wouldn’t work,” said Jessica, a Mebane resident who graduated this summer with a degree in Mechanical Drafting Technology.

Jessica and her team began with designs on paper, then coordinates were fed into Mechanical Drafting’s 3D Printer to create a plastic prototype. The $30,000 piece of equipment physically manufactures a three-dimensional model that is used as a guide in making the final metal tool.

To his machining students, Adam Self emphasized the need for function: “I acted like the ultimate customer. I told them that it’s got to actually work. And it did.”

Machining students took charge of the drawings and the plastic prototype, using it as a visual model to guide them when making the final metal product. The students used a CNC Lathe (or turning center) to make the turning screw from steel; the body of the device was made of aluminum using a CNC Machining Center.

“I liked getting together with the machining students, talking to them about what their needs were to make this actually work,” said Jessica.

ACC’s graduates from both Mechanical Drafting Technology and Computer-Integrated Machining have been successful in recent years obtaining employment in local companies.

3D PRINTER WORKS WONDERS

The Dimension BST-3D Printer used by Mechanical Drafting students is an industry-style model that cost $30,000 when it was purchased for the department in 2005. That compares to a hobbyist’s model that would cost about $1,200.

Said Dr. Bob Owen, department head: “It doesn’t work like people think. When the coordinates of the design are fed into the computer, the plastic model is created in thin layers of plastic. I like to use the analogy of a giant glue gun. It creates the body of your design in model plastic. What we call ‘support’ plastic may also be used to fill in holes in the prototype that literally support the body of the prototype model.”

Dr. Owen says the 3D Printer is accurate to .01. The 3D Printer is mostly used in drafting’s design class, as well as Intro to Solid Modeling.

Says Owen: “It’s a part of the design process, not the final part.”

GET THE

NO PARKING DECAL?

EXPECT A TICKET

ACC security is now ticketing vehicles that do not display the current 2013-14 teal-colored parking decal. Decals are free and can be picked up at the information desk in the main building.

Up-to-date decals must be displayed with the number visible on the rear bumper.

Reminders

Students are not permitted to park in Visitor Parking unless pre-authorized. If you are driving an alternate vehicle, park in the designated student parking lots and not in visitor spaces. Obey traffic signs and security directing traffic. The campus speed limit is 10 mph.

FIND SCHOLARSHIPS AT WEBSITE

Go to ScholarshipExperts.com to find dozens of scholarship listings such as Make Me Laugh $1,500 Scholarship, College Prowler “No Essay” Scholarship, and Shout It Out $1,500 Scholarship. Registration at the site is free.

ACADEMIC ADVISING CENTER

The Academic Advising Center is located near the lower commons in the main building. Fall hours are:

- Mon., 8 a.m.-7 p.m.
- Tues.-Thurs., 8 a.m.-5 p.m.
- Fri., 8 a.m.-3 p.m.

Appointments are preferred. Call Virginia Jeffries at 336-506-4362.

PLACEMENT TESTING HOURS FOR FALL SEMESTER

- Mon., Tues., Wed. 9 a.m. & 1 p.m.
- Tues.–Fri. 9 a.m.-5 p.m.

More information about the placement test including test prep, online appointment-making and a full testing calendar is available on the website: www.alamancecc.edu/admissions-site/placement-testing/
Local Authors
Amy Edwards Barr, head of children’s services at the Graham Public Library, and Jerry Peterman, mayor of Graham (seen here with, at left, ACC Reference Librarian Sara Thynne), discussed their new book, *Images of America: Graham* in the ACC auditorium last week. Part of an ongoing national series, *Images of America: Graham* is an illustrated guide to the rich history of the county seat of Alamance County. The event was sponsored by the Learning Resources Center. The book can be checked out in the campus library, or purchased at the Graham Public Library, Graham City Hall, or at Barnes & Noble.

Longtime Employee Retires
Jesse Vaughn (right), who served as an instructor in Mechanical Drafting since 1986, was feted with a retirement reception by colleagues last week. Vaughn not only taught students for more than 25 years, but was instrumental in designing the blueprints for a number of renovation projects over the years.

Two Visitors from France
toured ACC’s main campus in August during an overseas visit to meet WWII veteran Paul Cheek of Burlington. Antoine Berthe of Le Parcq, France (above with father, Lionel) found a small artifact in his yard belonging to an U.S. airplane that crashlanded during the second world war. Through research, Antoine traced the fragment to a photo of the burning plane and its discernible serial number, then discovered the only living member of the American crew that survived the crash resides in Burlington, NC. The Berthes were hosted during their local stay by former ACC instructor Jim Romer and his wife. ACC graduate and library worker Karon Griffin showed father and son around campus. France does not have a community college system.

Writing Center Open
The Writing Center, located in the Skills Lab, is open to all students for help in writing assignments in any curriculum. (Below left) English instructor Alexandra Marano explains a point to a student about his writing; (right) Pre-Nursing student Angela Redd gets some instruction from Debra Burdick, Writing Center director. The Writing Center is open 8 a.m.-5 p.m. Mon., 8 a.m.-8 p.m. Tue-Thur, 8 a.m.-2 p.m. Fri, and 8 a.m.-12 p.m. Sat.