



From the Director ...

NCATC Friends and Colleagues,

I do not believe the NCATC Board of Directors has ever been a focus of my newsletter column before now. However, I would like all our members and friends who read our newsletters each quarter to know just how lucky we all are to have thirteen highly qualified, passionate, and committed volunteers leading the NCATC organization.

The NCATC Directors are the most engaged, forward-thinking group of advanced technology training experts and workforce development professionals anyone could wish for—collaborating regularly to bring our college and Strategic Partner Alliance members the very best value and benefits possible.

As an Affiliated Council of the American Association of Community Colleges (AACCC) and active member of their Economic and Workforce Development Commission, you will always find NCATC to be the go-to source for timely information about workforce activities around the country as well as member resources, technology news, events, and ever increasing value-added benefits from our Strategic Partners.

The NCATC Directors and Staff look forward to seeing you at the 2016 NCATC Events this year. Our **2016 Summer Workshop** will be hosted by **Northeast State Community College** in Kingsport, TN, **June 8–10**.

And, the **2016 Fall Conference** will be in the Chicago area—in partnership with the **Fabricators & Manufacturers Association, International® (FMA)**—and hosted by **Harper College, October 11–14**. This new conference model will strengthen our partnership with the manufacturing community and bolster our education and training network's community of practice in advanced technology workforce development.



We encourage you to stay connected with us, via the NCATC website, social media, and quarterly e-newsletters like this one.

J. Craig McAtee,
NCATC Executive
Director

Sierra College Manufacturing Student Starts Up His Future at Maker Space

Tyler Hill, a Sierra College Electro Mechanical Engineering major from Lincoln, CA, got a job working for NCR Corporation in part because of his participation in the Hacker Lab Startup Hustle, a boot camp for entrepreneurs held in fall 2015.



Sierra College student Tyler Hill becomes a maker at Hacker Lab and develops entrepreneurial skills by participating in Startup Hustle.

Hill had joined Hacker Lab to access the CNC and laser cutting tools, and then applied to participate in Startup Hustle to work on the home automation system he developed with another student. "Putting this experience on my resume helped me stand out and get a job as an ATM Engineer," said Hill. "I enjoy the work and am even more confident in my plan to transfer to a California State University engineering program."

Hill explained that he developed new skills to create a prototype product at Hacker Lab. "I had no idea how to make a printed circuit board," said Hill. "But after three weeks of practice at Hacker Lab, I could make a perfect board from scratch."

Carol Pepper-Kittredge, Director, Center for Applied Competitive Technologies, Sierra College, helped plan the Hacker Lab powered by Sierra College in Rocklin. "To attract students to Advanced Manufacturing careers and provide businesses access to technology and training, Sierra College equipped the maker space with electronics, 3D printers, a laser cutter, and a CNC router," said Pepper-Kittredge.

"Hacker Lab provides a unique environment where students can mix with people from various industries and this network accelerates their career path as well as entrepreneurial endeavors," said Pepper-Kittredge. "Startup Hustle delivers real-world experiences to students; it validates the skills they've developed on campus and prepares them for science, technology, engineering, and math (STEM) careers."

Startup Hustle teams attend weekly online and in-person training sessions led by successful founders of businesses. In addition, industry mentors coach the teams. "The mentors were genius," said Hill. "They were more than technical experts; they collaborated with us to think through sales and marketing."

When Sierra College and the [Center for Applied Competitive Technologies](#) joined [Hacker Lab](#) in establishing a maker and co-working space, it was the first such public private partnership in the country. According to Willy Duncan, Superintendent/President, Sierra College Joint Community College District, the decision to form the partnership with Sacramento-based Hacker Lab was made to enrich community college students' education and employability.

"Employers are seeking innovators who will develop better products to meet customers' needs and contribute to business growth," said Duncan. "At Hacker Lab, Sierra College students work alongside a diverse group of experts and artisans to test and hone skills learned in their college classes. As a result, students add practical experience and cutting-edge skills in coding, virtual reality, and 3D printing to their resumes."

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St. Louis Community College and the MoManufacturingWINS Grant

In September of 2012 the Department of Labor announced an award of \$14,969,910 to St. Louis Community College as the lead institution in a statewide consortium to deliver advanced manufacturing training throughout Missouri. The Missouri Manufacturing Workforce Innovation Networks—MoManufacturingWINS—is a consortium of nine public community and technical colleges including: St. Louis Community College; Metropolitan Community College of Kansas City, Missouri; North Central Missouri College; State Fair Community College; Ozarks Technical Community College; East Central College; St. Charles Community College; Mineral Area College; and Linn State Technical College. Other key partners, led by the Missouri Community College Association, include the United Auto Workers, the National Association of Manufacturers, the Missouri Chamber of Commerce and Industry, and the Missouri Department of Economic Development.

MoManufacturingWINS focused on preparing workers for advanced manufacturing and related careers in production, industrial maintenance, welding, machining, and logistics. Programs funded through the grant awarded industry-recognized certifications endorsed by the National Association of Manufacturers such as the National Career Readiness Certificate as well as those issued by the American Welding Society (AWS), the Manufacturing Skill Standards Council (MSSC), and the National Institute for Metalworking Skills (NIMS).

The grant, which planned to serve 3,317 adults who are eligible under the Trade Adjustment Act or who are otherwise unemployed, underemployed, or low skilled, wrapped up training with an impressive 4,522 served. The focus of the grant was to innovate the way in which adult workers are engaged and trained by Missouri's technical training institutions including moving from a job training approach to establishing career pathways for manufacturing and helping training institutions become more "adult friendly" through flexible program scheduling and enabling technology.

St. Louis Community College trained qualified individuals in the following areas:

- Certified Logistics Technician (CLT)
- Certified Production Technician (CPT)
- Precision Machining Technology (PMT)
- Welding Technology

Watch the following video to hear success stories from a couple of our PMT graduates. MoMan WINS: St. Louis Community College on Vimeo: <https://vimeo.com/147658547>

If you would like more information, please contact Becky Epps, 314-513-4271 or bepps@stlcc.edu. ♦

Celebrating New Students: 1st Annual National Signing Day a Success

South Central College hosted its first National Technical Letter of Intent Signing Day on Thursday, February 18, at simultaneous events on the Faribault and North Mankato campuses. New students for the 2016–2017 academic year took part in signing ceremonies, similar to an athletic signing.

South Central College's event, which is conducted in conjunction with the National Coalition of Certification Centers (NC3), mirrors the NCAA's National Signing Day for athletes who commit to play sports in college. It was designed to recognize students who are entering technical fields and to celebrate strong technical careers. This year's national event expands on the tremendous success of the previous year's events held at Washburn Tech (Topeka, KS), Gateway Technical College (Kenosha, WI), Pima Community College (Tucson, AZ), and Wichita Area Technical College (Wichita, KS). This is the third year for this event nationally. National trends indicate that students who sign a letter of intent are 30% more likely to show up for classes in the fall!



"South Central College joined the national effort to congratulate incoming students on their decision to pursue a high-demand technical program, which will prepare them for a promising future," said Dr. Annette Parker, President of South Central College.

Students, by designated technical program, signed a letter of intent which reads, "I, the undersigned South Central College student, understand that with this Letter of Intent, I am occupying one of the very limited training and education openings in this technical education program and my goal is to successfully complete this program. I understand I will be prepared to achieve technical certification for a high demand occupation and with completion of the industry-level curriculum, I will graduate workplace ready."



Educators, families, and friends were in the audience to support the incoming students. Area business and community leaders stood behind the students as they signed their letters of intent to show support, meet the students who will make up the future workforce, and reinforce the students' decision to learn skills that will lead to a strong technical career. A \$1,000 scholarship was awarded at each event on behalf the South Central College Foundation Board of Directors in Faribault and North Mankato. Following the letter signing, new students, guests, and business and industry representatives took part in SCC technical program tours.

About South Central College

South Central College (SCC) is a comprehensive community and technical college that is part of the Minnesota State Colleges and Universities (MnSCU) system, with campuses in Faribault and North Mankato. SCC offers programs in Advanced Manufacturing, Allied Health and Nursing, Agribusiness, Arts and Communications, Building and Design, Business, Transportation, and Liberal Arts and Sciences. For more information, visit www.southcentral.edu. ♦

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Startup Hustle made Hill more aware of identifying a target market for his team’s inventions. “One of the assignments was to pinpoint the exact type of customers we were going for to sell our product,” said Hill.

Sierra College Mechatronics faculty member Steve Gillette also offered advice to Hill by sharing his own experience running a company. “I didn’t really want to hear it,” said Hill. “We were excited about the technology and unprepared for the difficulties of regulation, producing a product, and building a business. He was absolutely right on about the challenges of being an entrepreneur and I appreciated his help.”

“The insight I gained from Startup Hustle was like getting ice cold water thrown at you,” said Hill. “We realized that we were in way over our heads trying to run a company and needed to know more.”

Hill found the Startup Hustle experience to be exceptionally useful. “When I started, I had no idea how to pursue a realistic, viable business,” said Hill. “I would recommend Startup Hustle to other students who are up for the challenge and think they’d like to be entrepreneurs. It isn’t for the faint of heart.”

Although Hill has decided not to move forward with the home automation system, he believes that the experience of Startup Hustle was very valuable. “I gained so much that you can’t learn in school,” said Hill. “I would definitely recommend that students get involved with Hacker Lab so they can apply what they are learning. When I’m ready to start a company, I’ll know what it takes.”

In just one year, Sacramento-based Hacker Lab worked with Sierra College to find an off-campus location in Rocklin, CA, fill it with equipment, attract 140 members (50% students), and offer education events attended by over 1000 people. Learn more at the [Hacker Lab website](http://www.hacklab.com). Visit <http://sierracollegelearning.com/entrepreneurs/> for stories about fall 2015 Startup Hustle participants.

About Sierra College CACT

The Sierra College Center for Applied Competitive Technologies (CACT) is focused on Advanced Manufacturing training and development, and is funded through the Workforce and Economic Development program of the California Community College Chancellor’s Office. Since 1992, the Sierra College CACT has provided customized training for organizations, manufacturers and technology companies throughout Northern California. Additional information is available at www.sierracollegelearning.com, or contact Carol Pepper-Kittredge at 916-660-7801 or cpepper-kittredge@sierracollege.edu.

About Hacker Lab

Established in 2012 in Sacramento, Hacker Lab aims to educate folks and spark innovation with community-driven resources. Offering co-working, maker space courses, meet-ups, and events, Hacker Lab believes that technology can change the world and the starting point is education. In 2014, Hacker Lab had over 200 members; 120 completed a survey and 33 provided company data that showed: \$3.7 million in revenue was generated and 75 jobs were created, and 20 start-up ventures were launched. Hacker Lab has locations in Sacramento and Rocklin. Learn more at the [Hacker Lab website](http://www.hacklab.com).

About Sierra College

Sierra College District is celebrating its 80th Anniversary in 2016, and the Nevada County Campus in Grass Valley is celebrating 20 years. Sierra College serves 3200 square miles of Northern CA with campuses in Roseville, Rocklin, Grass Valley, and Truckee. With approximately 125 degree and certificate programs, Sierra College is ranked first in Northern California (Sacramento north) for transfers to four-year universities. Sierra offers career/technical training and classes for upgrading job skills. Sierra graduates can be found in businesses and industries throughout the region. More information at www.sierracollege.edu. ♦



Brandon Marshall, Tyler Hill and Dan Casas-Murray work together on a creativity exercise during Startup Hustle at Hacker Lab in Rocklin, CA

2016 NCATC Summer Workshop

Innovation in Workforce Development: Building the 21st-Century Talent Pipeline

June 8–10, 2016 • Kingsport, Tennessee

Hosted by



Schedule at a Glance

Wednesday, June 8, 2016

- 1:00 –6:00 P.M. Registration
- 1:00–5:00 Preconference Workshop
- 6:00–8:00 Welcome Reception

Thursday, June 9, 2016

- 7:50 A.M. Depart for NeSCC ATC – RCAM
- 8:00–9:00 Registration and Breakfast
- 8:45–9:00 Welcome – Janice Gilliam, President, NeSCC
- 9:00–10:00 Concurrent Sessions
- 10:00–10:30 Break – Visit with Exhibitors
- 10:30–11:30 Concurrent Sessions
- 11:45–1:00 Lunch and Keynote – Eastman Chemical
- 1:15–2:15 Plenary Session: Design Thinking – Innovation in Modern Manufacturing
- 2:30 Industry Tours – Choose one of three: Eastman, Domtar, AO Smith
- 6:00–8:30 Dinner and Keynote – Bell Helicopter
- 8:45 Depart for Hotel

Friday, June 10, 2016

- 7:50 A.M. Depart for NeSCC ATC – RCAM
- 8:00–9:00 Breakfast Keynote – Jeff Fleming, City of Kingsport
- 9:00–11:45 Panel Session, followed by RCAM Tour
- 11:45–12:30 Depart for Hotel then Airport

Download the complete program and register at www.ncatc.org

Special Sessions You Won't Want to Miss

Preconference Workshop

Exploring Process Control in Chemical Manufacturing will lead participants on a survey of industrial process control, engaging them in a day-in-the-life of a chemical process operator and maintenance personnel. Participants will gain a better understanding of how chemical processes are safely controlled, and experience hands-on the use of modern process control systems. Attendees will see the connection between process control systems and the use of data acquisition to solve problems and control process quality. The host ATC is equipped with a Rockwell control system running an active process trainer. These systems are used to train operations and maintenance personnel for 21st century chemical manufacturing.

Panel Session

Demystifying Apprenticeships will feature representatives from the U.S. Dept. of Labor, Eastman Chemical Company, and Northeast State Community College who will unpack apprenticeship programs and provide useful information to aid community colleges and employers in the logistics of apprenticeship training. Panelists will address some of the myths surrounding apprenticeships and provide helpful tools for setting up and administering an apprenticeship program. The session will also explore the use of credit and non-credit options to support registered programs. Currently the ATC hosts over 400 students seeking registered apprenticeship credentials using multiple program offerings.

Concurrent Sessions—Engaging Your Chamber of Commerce • NeSCC Career Academies • Journey to Certifications—AWS and NIMS • Educational Partnerships • Economic Development Partnerships • Process Control in Chemical Manufacturing

National Coalition of Advanced Technology Centers • 3607 Seneca Drive, Cleveland, OH 44139 • www.ncatc.org