Mechatronics Students Build Lift Robot

On June 11, students Elijah Wolfe, Ryker Stuart, Kaneda Zeober-Hallman, and Josh Olsen presented their Mechatronics capstone to their faculty at the Columbia Tech Center.

Spotlight on Mechatronics

A mechatronics open house will introduce the community to related jobs and Clark College’s program October 30.

Fall begins at Clark

Students find their way on the first day of the 2017 fall term.

Monday, September 25 marked the start of the 2017 fall term at Clark College.

While official numbers are not available until after the 10th day of class, the day began with 12,055 students enrolled, slightly down from last year's Day One enrollment of 12,099. This reflects trends seen throughout the statewide system and through much of the country as well.

Some specific segments saw increases. Enrollment in eLearning (or online) courses grew this year by 18 percent, with more than 4,700 students taking advantage of those courses. Clark College's Running Start Program also grew again this year by 2 percent to just over 2,100 students, making it the largest Running Start program in the state.

Other highlights for the quarter:

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  Cuisine instructor Aaron Guerra looks ready to start fall term.

This quarter sees the relaunch of the college's culinary programs, including Cuisine Management and Professional Baking and Pastry Arts. Students entering the program this quarter will be the first to study in the college's McClaskey Culinary Institute, which is still in the final stages of construction and is expected to open to the public by the end of 2017. When it opens, it will be the only nonprofit culinary institute within 120 miles. Clark's Culinary Arts – Cooking/Restaurant Management program was put on hiatus in 2013 in order to modernize the curriculum and facilities. The Culinary Arts – Baking/Bakery Management program was put on hiatus in 2015, when it was determined that the program could not continue running while the culinary facilities were being remodeled.

- The Bachelor of Applied Science in Applied Management program, which launched January 2017, begins its first full academic year at capacity with 35 students. This is the second bachelor's degree offered by Clark, and more are expected to be announced by the end of this academic year. In response to strong demand, a second cohort of the BASAM program will launch in January.

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  The BAS in Applied Management program’s newest cohort poses with administrators, faculty, and campus resource specialists during their orientation session.

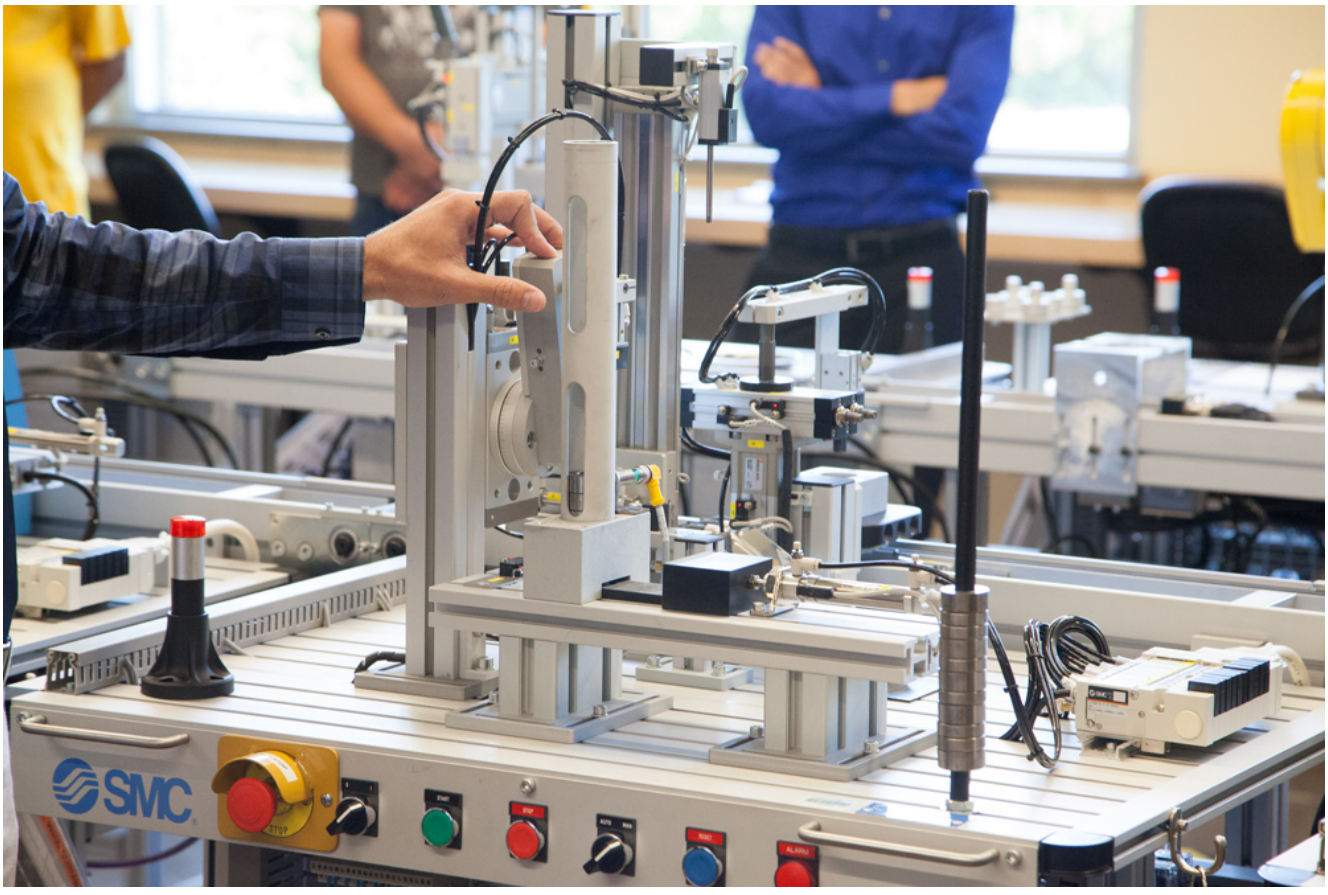
The college’s new Rural Access Mechatronics Program (RAMP) launches this quarter, providing opportunities for students in underserved parts of the college’s service district to gain in-demand skills without relocating to urban areas. Made possible by a grant from the National Science Foundation, this two-quarter program allows students to earn a certificate in mechatronics through primarily online classes that require them to come to Clark’s Columbia Tech Center location in East Vancouver on Saturdays only. As with the BAS in Applied Management, this program is at capacity, and faculty are considering adding an additional cohort in winter term.

- The college’s new Penguin Pantry has opened on the college’s main campus, providing students with free food and hygiene supplies, as well as some clothing and school supplies. Almost half of Clark’s student body is classified as lower-income, according to data from the

college’s Office of Planning & Effectiveness.

Photos: Campus photos by Clark College/Jennifer Shadley, BAS in Applied Management photo by Clark College/Jennifer Lea.

A RAMP to tech jobs



Clark College’s popular mechatronics program combines electronics with mechanized processes to prepare students for jobs in today’s high-tech manufacturing.

Clark College has received a $200,000 grant from the National

Science Foundation to create a new Rural Access Mechatronics Program (RAMP) that will help students in rural areas become skilled technicians in the high-demand field of advanced manufacturing.

“Thanks to this funding, Clark College will be able to provide greater access to our highly regarded Mechatronics program to students living anywhere in Clark’s service district,” said Clark College Dean of Workforce, Career and Technical Education Genevieve Howard. Clark’s service district includes Clark, Skamania, and Klickitat counties.

During the grant’s first year, Clark College faculty will develop a curriculum of seven “hybrid” classes that compose a Certificate of Completion in Mechatronics Fundamentals. Hybrid classes are taught partially in a face-to-face classroom, and partially online, allowing students in remote locations to attend classes without commuting long distances each day to a college campus.

Many regional employers have expressed a need for additional technicians trained in mechatronics, a discipline that focuses on the integration of mechanical and electronic components in modern manufacturing and utility environments. Employers who wrote letters in support of this project include Boeing, Insitu, NORPAC, Silicon Forest Electronics, Vancouver Energy, the Columbia River Economic Development Council, and the Southwest Washington STEM Network.

“The RAMP program is another example of how Clark College is addressing the workforce needs of advanced manufacturing businesses,” said Jeanne Bennett, CEO of the Southwest Washington Workforce Development Council, which also supports the project. “The hybrid/online program will enable more students to receive training, and this will increase our region’s pool of skilled mechatronics technicians.”

The program will begin accepting its pilot cohort of students in the fall quarter of 2017. Given Clark's strong focus on hands-on learning, the college is currently examining potential options for bringing lab facilities to students in remote areas of its service district. These could include anything from suitcase-sized training modules to a traveling "lab" on wheels.

Clark College received this grant through the NSF's Advanced Technical Education program, which was created to improve and expand educational programs for technicians to work in high-tech, STEM (science, technology, engineering, and mathematics) fields. The grant proposal was developed by mechatronics professors Chris Lewis and Ken Luchini with Director of Grant Development Lori Silverman and Howard.

"The RAMP grant is exciting because it validates the ability of Clark College faculty and staff to develop a grant proposal that is competitive on a national scale in an academically rigorous process," said Howard. "Our hope is that we can replicate this hybrid model in other areas of career and technical education, potentially with further NSF assistance."

Photos: Clark College/Jenny Shadley

Training Tomorrow’s Workforce

Welding instructor Caleb White, *left*, shows students Grant Gwilliam and Cody Cook how to use a CNC plasma table, which is used in the computer-assisted cutting of metals. White has been active in developing new curriculum that teaches Clark students fabrication, a skill many local employers are seeking.

This summer, Clark is taking the next step in boosting our region’s economy by introducing a new technical program and adjusting some existing programs to better meet the needs of today’s employers.

Highlights of these changes include:

- A new Industrial Maintenance Technician (IMT) program that combines a selection of Clark’s existing Mechatronics, Machining, and Welding courses to train

students on how to provide preventive maintenance and repair support to manufacturing and other mechanical industries. Leaders from regional industry have indicated a strong need for qualified IMTs, and labor surveys show that the average annual wage for IMTs is $43,000.

- Clark's Welding program is introducing all-new curriculum that not only expands the variety of welding processes taught but teaches students how to use those processes in fabrication, a skill many local employers are seeking.
- Starting fall quarter 2014, Clark's Mechatronics and Machining programs will begin offering night classes to help accommodate the schedules of current industrial workers who need to expand their skill sets to meet the changing needs of modern industry.

Anyone interested in enrolling in these programs can visit www.clark.edu/gotech to learn more.

All these changes were made in direct consultation with local employers.

Damond Batties looks on while Nicole Doyle works in an argon purge chamber, which is used in welding air-sensitive materials like stainless steel and titanium

that are common in modern
industry.

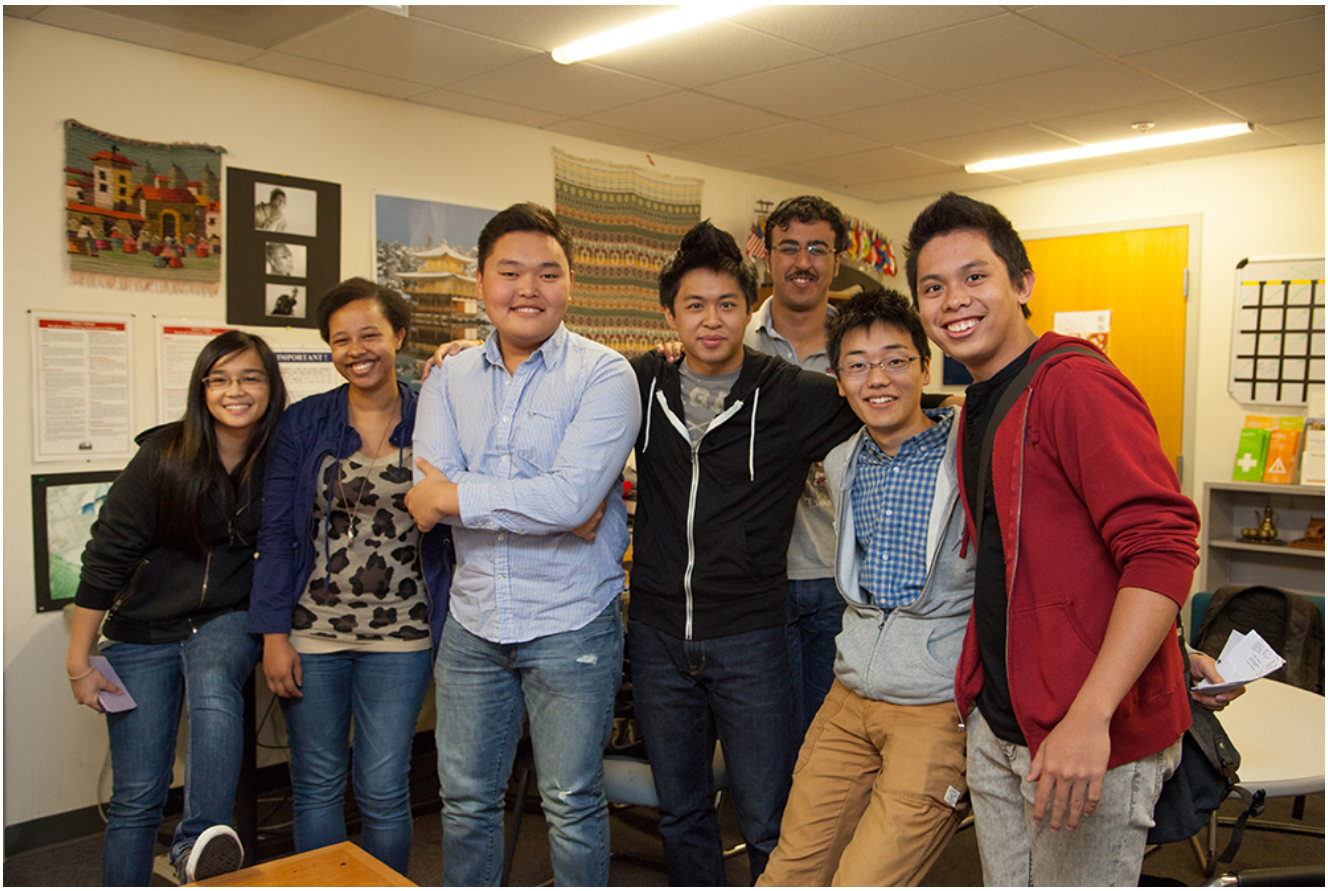
“As the largest workforce training provider in Southwest Washington, Clark College continually meets the needs of the business community and ensures that students are equipped with high-demand, relevant skills, whether they are full-time students entering the workforce or incumbent workers developing new skills to improve the productivity of their employers,” said Michelle Giovannozzi, Director of Corporate & Community Partnerships for Clark College Corporate & Continuing Education. “Over the last year, we partnered with regional manufacturers to develop the new Industrial Maintenance Technician program and the revised Welding curriculum in order to support growth through the economic recovery and beyond.”

“The underlying driver for all of Clark College’s Career and Technical Education programs is to provide students with relevant and rigorous educational opportunities that give them the skills that meet the workforce demands for our local and regional industries,” said Genevieve Howard, who as Clark’s Dean of Workforce, Career & Technical Education oversees the college’s Mechatronics, Machining, and Welding programs, as well as such well-regarded programs as Computer-Aided Drafting & Design and Automotive Technology.

Clark College has long served as the premier resource for training skilled technicians who meet the needs of this region’s industry. Through advisory committees and regular outreach, the college has developed partnerships that allow it to respond quickly to the needs of local employers. These new changes are part of that practice—a practice that has made the college Southwest Washington’s best source for career and technical training.

Photos: Clark College/Jenny Shadley

New for Fall



International students make new friends in the International Student Lounge on the first day of fall quarter. Fall 2013 marks record enrollment for International Programs.

On Monday, September 23, Clark College opened the doors for its 2013-2014 academic year. The college welcomed 13,373 students on opening day, down slightly from fall 2012, when the college welcomed 13,927 students.

The start of fall quarter is always a time of new beginnings at the college, but this year is seeing a number of changes to the way the college enhances student learning. Some highlights:

- **Expanded hours at CTC:** For the first time, Clark College

at Columbia Tech Center will be open for credit classes on Fridays. The expanded schedule will make it easier for residents of East Vancouver to complete their degrees entirely at CTC, without traveling to take classes on Clark's main campus.

- **Expansion into the Gorge:** In response to demand from local businesses and residents, Clark College is offering college-level classes to the communities of the Columbia River Gorge through its new satellite location in the Wind River Education Center in Carson. Until now, residents had to travel 20 miles or more to attend the nearest community college—and that college is located out of state, in Oregon.
- **New Phlebotomy program:** Clark College has redesigned its Phlebotomy certification program and relocated it to specially configured classrooms and labs on the campus of Washington State University Vancouver in the college's health care instruction building, which also houses the college's Nursing and Pharmacy Technician programs.
- **Bachelor's degrees in Health Informatics :** Clark College and Bellevue College have signed an articulation agreement that allows students at Clark to earn a bachelor's degree in Health Informatics Information Technology (HIIT) from Bellevue through online and remote classes—without leaving the Clark College campus. "In our ongoing conversations with regional employers, we realized there was a need for Health Informatics Information Technology professionals and responded quickly to that need, but we also realized that there would be a need for students to take their education to the next level," said Debra Ortiz, director of allied health programs at Clark College.
- **Record number of Running Start and international students:** Clark expects to see more than 1,770 students enrolled in Washington state's popular Running Start program, which allows high school students to earn

college credit for little or no cost. This number is a 5-percent increase over last year's Running Start enrollment. Meanwhile, Clark is also seeing a record number of international students at the college this year. A total of 103 students from 31 different countries are attending the college this quarter.

- **Mechatronics offers evening classes:** Clark College's state-of-the-art Mechatronics program will begin offering evening course, allowing workers to retrain for modern industrial jobs without leaving their current positions. This expansion is designed to boost the region's economy; it was prompted by local businesses who wanted more opportunities to retrain their employees.

Food carts make their debut on campus.

- **New food carts serve campus while Culinary Arts program is on hiatus:** Clark is discontinuing its Culinary Arts – Food program while it launches an ambitious new redesign of the program that will make it more responsive to modern culinary trends. Three privately owned food carts are supplying food service to the college while the program is overhauled. The college's widely respected Culinary Arts – Bakery program will continue operating during this time.
- **Water-bottle filling stations:** Students and college administration have worked together to help preserve the

environment by setting up water-bottle filling stations around the main campus, thereby reducing the number of disposable plastic water bottles bought and discarded at the college.