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Far aloft at Portland Community College’s Willow Creek Center is the hum of a new technology that is positively impacting people’s lives.

In recent years, drones have been the subject of futuristic pop culture references and exploration—from pizza delivery to human transportation to large-scale agricultural use. But how far off are these creative applications from reality? Maybe not that far at all.

**TRENDING UPWARD**

PCC Community Education Program instructor Ric Stephens said that as a professional aerial photographer, he recognized the vast potential of drones for his work. Stephens went on to become an early adopter and has been instructing courses in Comm Ed’s drone program since its inception in 2015.

“The Willow Creek Center is in an ideal location and has exceptional classrooms and IT equipment,” he said. “Regional companies from Oregon’s nearby technology hubs are using drones for innovative practices that provide cutting edge case studies that we explore in depth in the classroom.”

**BUSINESSES TAKE FLIGHT**

Stephens said drones are thrilling to observe due to both rapid advances in their technology and constantly evolving applications. Examples include delivering medical aid to remote locations, wowing audiences with colorfully orchestrated light displays at major events, and for such business purposes as photography, videography and land surveying for construction and development.

“As some drones fly, or some go underwater,” Stephens continued. “Some are propelled by hydrogen or batteries, or fly as both multi-rotor and aircraft.”

As drones develop, he said, their sizes and purposes will vary dramatically. For instance, technology in development may offer a solution to the shortage of pollinating honeybees. On the other end of the spectrum, drones are becoming as large as 20 feet and may become a common mode of transportation.

**DOWN TO EARTH INSTRUCTION**

In addition to his work with PCC, Stephens is a member of numerous national and international drone agencies and organizations. His expertise whisked him to faraway conferences—from Norway to Brazil (not via a drone, though).

Search and rescue is becoming an increasingly common use for drones. Stephens recently co-edited a white paper to guide emergency services agencies that seek to use drones for regional and local government emergency management.

PCC’s drone courses are designed to encourage and prepare students to become responsible pilots in a new field. All students will acquire knowledge of industry history, regulation, ethics and trends.

“The potential business applications are endless, and those with proper training can be at the forefront of an exciting new industry,” Stephens said.

Visit page 62 or visit pcc.edu/communityed to discover upcoming courses.
PCC Community Ed instructor David Blass has been helping students craft their own business plans for more than seven years. “I’ve always been drawn to business and commerce,” said Blass. “I enjoy the creativity and strategy required, and the challenge of managing multiple dynamics that shift and move at all times.”

Blass’s “So You Want to Start Your Own Business” series includes subjects ranging from business planning to finance to marketing. He instructs his students to avoid common pitfalls and failures while adopting a strategic approach that can be fun, exciting and even a little scary.

“Students taking my courses essentially get a consolidated business degree in six weeks,” he said. “A number of my students have gone into businesses of their own and report back that they consistently refer to my notes.”

If you’re seeking to explore a new business idea, consider one of Blass’s business workshops, held at Willow Creek Center this winter. See page 58.

More than 10 years ago, Community Ed instructor Jennifer Anderson was frustrated with her former career and embarked on a personal journey to make a change.

She read every book she could find on career transition, but eventually turned to a career coach for guidance. When her coach suggested that Anderson may have a knack for helping others, it was the aha moment required for the next chapter, and the push she needed to become a career coach in her own right.

So what advice does Anderson have for those seeking a change? “It’s difficult to twist oneself into new roles and realities,” Anderson said. “It requires the confidence to make a big life-altering change.”

Working with students reminds Anderson that persistence and determination always win out in the end.

Anderson is leading four workshops this winter at the Willow Creek Center to help PCC students prepare, find and interview for the career they really want.

Workshops are found on page 57–58.
Unemployment is low, and the economy is humming. And it’s these factors that are putting the squeeze on industry to find skilled workers for open positions.

Called a “skills gap,” companies are desperately seeking a trained, educated and diverse workforce to fill more jobs. And career technical education (CTE) programs at America’s community colleges are the answer to providing industry with a qualified, well-trained workforce.

“Industry’s need presents a sweet spot for community colleges, partly because of the diversity of our students and also because of our expertise with career technical education and our ability to produce that talent,” said Portland Community College President Mark Mitsui. “But only if we have the necessary funding and employer partnerships.”

The “necessary funding” aspect is key. The state’s 17 community colleges are funded in large part by the Oregon Legislature on a biennium basis. The colleges’ 2019–2021 biennium budget is up for review, and the consortium that oversees it—the Office of Community Colleges and Workforce Development and Oregon Higher Education Coordinating Commission (HECC)—is asking for $787 million to meet employer needs and resolve the skills gap, as well as close the achievement gap related to student success.

About $70 million of the total proposed budget is allotted for CTE training programs at community colleges, with the aim of doubling the number of graduates statewide by 7,900 a year.

Employer partnerships also are fundamental to solving the skills gap and building on the state’s current economic success. PCC has more than 1,600 industry partners, many that advise on curriculum for CTE programs at the college.

As business and industry needs change, and technology evolves, employer partners guide the college so that its CTE programs adapt accordingly.

Complementing this effort, the college is prioritizing the creation of work-based learning opportunities like apprenticeships, internships and co-operative education agreements. Examples include a first-of-its-kind registered apprenticeship with Madden Industrial Craftsmen, and PCC’s role as the training center partner in the Oregon Manufacturing Innovation Center (OMIC) project in Scappoose.

OMIC is a collaborative that seeks to combine applied research and development and workforce training, in the metals manufacturing industry. PCC’s OMIC Training Center programs will be based on an apprenticeship model. Students will obtain work-based learning experience as they complete certificates or associate degrees, then move directly into advanced manufacturing jobs or pursue advanced degrees.

“For PCC to effectively prepare its students for employment opportunities and careers in an ever-changing work environment, we need strong partnerships with local employers,” said Marc Goldberg, associate vice president of Workforce Development and Continuing Education at PCC. “The college’s partnership with a variety of organizations, in many and varied configurations, enables it to be a critical catalyst for the region’s economic success.”

PCC can be a lifeline for training, not only for business but for students.
Another effective PCC partnership is with regional Caterpillar dealers and the ThinkBIG Program. It gives students critical on-the-job training in diesel technology education, like engine fundamentals, machine hydraulics, fuel and electrical systems, transmissions and torque converters. While in the program, students get hired before they even finish ThinkBIG.

“ThinkBIG is the pipeline for us to get to where we need to go in service tech skills,” said Mike Miller, division manager for Caterpillar Global Dealer Learning. “When it all comes together like this, it derives great results.”

Results of earning CTE certificates at community colleges are great, too. Researchers from Georgetown University took a look at CTE in Oregon and found that the number of certificates awarded by Oregon community colleges has more than tripled since 2007, with most growth coming in short-term certificates. The study found that community college certificates typically increase earnings by 19 percent, with certificate holders younger than 29 experiencing significant wage increases.

“By way of increased state funding and industry partnerships, CTE can address challenges head-on, meeting industry needs and offering students access to greater opportunity,” Mitsui said.

PCC can be a lifeline for training for students. Thanks to emergency funding by the state, PCC stepped in when ITT Technical Institute closed its doors and established a temporary nursing program. The effort enabled 140 nursing students to earn certification so that the state’s healthcare industry would not lose out on qualified workers.

“Many of these students were so close to finishing their degrees but without viable options when the state stepped in,” said Ben Cannon, HECC’s executive director. “This was an innovative partnership that resulted in the exact outcomes we hoped to see.”

A TALE OF TWO BUDGETS

For many community college students, their allotted budget for housing and food is tough. About two of three experience food insecurity, and half of them face housing issues, with roughly 14 percent being homeless. Often times a student must decide between paying for gas to get to class or eating that day.

This leads to a critical budget—that of the state’s 17 community colleges. With a thriving economy and a new session for the state legislature beginning in February 2019, there is an opportunity for state leaders to fund critical CTE and support services at community colleges. Within the proposed $787 million biennium budget, community colleges are asking for $70 million earmarked for student success efforts to expand programs with proven results.

This effort would serve an additional 36,000 first-generation college students and underrepresented students statewide, and improve student-counselor ratios.

At PCC, such programs have been shown to double completion rates. The Future Connect Scholarship Program and Career Pathways pave the way for students to succeed in college, earning a degree or training for a career technical certificate that enables them to land family-wage jobs in high-demand industries. Future Connect, in particular, gives the students full wrap-around support to ensure they remain on track for completion.

Support of the state community college budget equals support for students, both inside and outside the classroom.
A new way to train Portland Community College aviation students has been cleared for takeoff.

The college’s Aviation Science Program has six new flight simulators in its hangar on the Rock Creek Campus in Washington County. The simulators, which together cost roughly $100,000, consist of four fixed wing stations (Cessna and Piper airplanes) and two rotary wing Robinson R-22 and R-44 helicopter simulators. These are specific aircraft that PCC students use at Hillsboro and Troutdale airports in their training.

The flight simulators are critical. Students gain valuable experience learning to overcome dangerous maneuvers and practicing standard airport taxiing protocols required by all major and regional airlines. Besides providing easy access to training in a safe environment, the simulators save students money. Similar models at area airports can cost students approximately $60 an hour to use, with hundreds of dollars more per hour to rent a plane and have a flight instructor review similar situations and protocols.

"By prepping for their lessons so that they are actually ready to fly when they get out to the airport, we estimate we will save thousands of dollars per student," said Larry Altree, faculty chair for the program.

"There is a tendency for beginning pilots to go out and spend a lot of time just figuring out what the different controls do. Those wasted minutes can really hurt the student financially. We can get that out of the way here so they can focus right from the first lesson on actually flying the airplane or helicopter."

Besides cost, the simulation room gives students a way to fly year-round.

“When bad weather arrives, they can’t fly VFR (visual flight rules),” said Kenneth Kleinfelter, an Aviation Science support technician. “But they can come in here and fly visually, and hopefully maintain some of that proficiency over the winter when skills like these can get stale.”

The flight simulation room is just another reason why students gravitate toward PCC’s pilot training program and why investment in it pays off for the state. In addition to the simulators, the program has a high placement rate in the field with strong potential for advancement. Starting pay for a commercial airline pilot begins at $50,000 and increases to $100,000 annually within five years.

Beaverton resident Chris Morningstar, 26, joined the program in spring 2017 and wants to use his aviation training to transfer into the Air Force. After discharge from the Army, Morningstar zeroed in on PCC and now is a regular in the simulation room.

“It’s been great to have these simulators,” he said. “They develop your multitasking skills, and you learn to handle situations that can arise in the cockpit.”

And, his favorite part of the simulator?

“Being able to pause it and use the bathroom,” Morningstar laughed.
In 2017–18, nearly 6,000 students accessed the Panther Pantries based at each comprehensive campus—Cascade, Rock Creek, Southeast and Sylvania. The pantries, which were first started back in 2007 as food canteens, now help students access food, gently-used clothing, hygiene products, emergency bus passes, applications for child care subsidies, and emergency grants and bus tickets.

Portland is a popular city that attracts TV and movie productions, and has impressive livability ratings. It’s also growing fast and as a result, house prices are skyrocketing and so is rent. This adversely impacts vulnerable populations at the low-end of the socio-economic scale. The more money needed to pay for rent or on a mortgage, the less disposable income there is for food.

Nationally, according to an Association of Community College Trustees survey, 63 percent of parenting community college students surveyed were food insecure and almost 14 percent were homeless. PCC’s statistics mirror these national trends. About two-thirds of its students go hungry.

The pantries receive funding from student fees but also rely on cash and food donations to operate. Such support has proven critical to their service to students.

“Establishing food pantries has been a game changer,” said Stephen Arthur, manager of student life and leadership development at the Sylvania Campus. “We can now offer more reliable services every week. We have more and more first time users to the Panther Pantries, so they are a huge asset.”

Student Tim White operates the Panther Pantry at the Southeast Campus. When he opens the door to the pantry within the main hallway of Mt. Tabor Hall, it’s not long before students stop by to use it. White, who is the campus’ leader of student resources, knows all too well what they are going through.

“The impact of having the pantry here on campus can’t be overstated,” White said. “We want to try to eradicate the stigma of asking for help. I’ve been hungry and have faced food insecurity, too. By having the pantry accessible, the students can help themselves by getting rid of the hunger and have piece of mind. They can then focus on their education.”

And it’s not just the food pantries that are helping. Fresh produce is being provided to dining services from college learning gardens, and the PCC Foundation has made it a core initiative to fight food insecurity.

“Students are accessing the resources that help them the most, and if having three meals a day does that, then that’s a good thing to do,” Arthur added.
AN EDUCATION WITH A KICK (AND PUNCH)

Martial arts enthusiast, PCC alum and OHSU nursing student Mare Cox is training for a fantastic career.
Mare Cox is proof that going to a community college can take you anywhere. After moving to Portland from Colorado in 2010 to be closer to family and restart her academic career, she hoped to enroll at a school where she could earn her required lower division transfer credits. Cox immediately got multiple tips that led in one direction—PCC.

“I really liked (my time there),” she remembered.

The inspiration, and hard work, took hold. Her last two years at PCC included regular appearances on the President and Vice President’s academic lists. Cox, who is Cherokee Indian, earned three PCC Foundation scholarships—one specific to minority students—to boost her success. In addition to her lower division requirements, she also earned a phlebotomy certification through the CLIMB Center, which allowed her to work part-time at Providence Health & Services.

“Getting accepted to OHSU is one of the coolest things I’ve ever experienced,” said Cox, who wants to become a nurse practitioner.

Diane Edwards, co-chair of the Mathematics Department at the Rock Creek Campus, was Cox’s Math 20 instructor back when she first started at PCC. According to Edwards, she knew from the beginning that her young pupil was serious about learning and succeeding in the class.

“Getting accepted to OHSU is one of the coolest things I’ve ever experienced,” said Cox, who wants to become a nurse practitioner.
Last fall, President Mark Mitsui took a moment to snap a selfie with a thousand of his closest friends—PCC staff.

Mitsui is into his third year at the helm of Oregon’s largest post-secondary institution and it has been a busy tenure already. He has helped the college pass a pivotal bond measure, presented at a world climate conference in Germany, created a comprehensive work plan outlining key strategic goals and objectives, supported PCC’s membership to a national network of community colleges to help more students succeed academically, and accepted a regional award that celebrates the college’s diversity efforts.

And, he’s advocating for Oregon’s community colleges to have a robust 2019-21 biennium operating budget that enables them to close the achievement gap and boost career technical education.
DIESEL GENERATION

Students are powering up their career technical education (CTE) at PCC.

Diesel Service Technology student Brooke Gosselin takes a look under the hood of one of the program’s high-tech rigs with instructor Trace Phillis. The program, which is based at the Rock Creek Campus in Washington County, enjoys a variety of industry affiliations and corporate partnerships. They support it through donations of new products, training, service literature, engines, heavy equipment, technical support and computer software.

And, the Diesel Tech Program has an articulation agreement with Montana State University Northern to make it easy for graduates to transition to a four-year school and complete their bachelor’s degree.

HISTORY CORNER

Circa 1970s, a college employee helps a stranded student jumpstart their car. How times have changed. Now, PCC offers an integrated shuttle service to all campuses and centers for students, and works with TriMet to offer discounted fares to low-income students so they can hop on any line or train affordably. The college also has brokered agreements with car-sharing services like Car2Go and ReachNow to provide instant access to vehicles on the campuses, while also encouraging students and staff to ride-share or use bicycles.

Today, getting stranded at any of the college’s campuses or centers is truly a thing of the past.
“Education has done a lot for me,” he said. “It’s the open door that has fulfilled my life and can fulfill theirs, too.”

Dr. Chris Villa sits in his office overlooking the pastoral majesty that is the Rock Creek Campus. Villa, who started his new job as Rock Creek’s president last summer, has been settling in to the duties that come with a leadership position as part of Oregon’s largest institution of higher education.

As he prepares to share his life story, Villa starts the conversation by saying he remains troubled by a statistic that he’s been obsessed with since he began his career in higher education as a college recruiter at Cal-State Bernardino: that less than one percent of all Latinos earn doctorates. It’s a statistic he’d like to change for students at PCC.

“I’m in a position to make a significant difference for folks like me,” said Villa, who earned a doctorate in Educational Leadership and Policy from the University of Utah, as well as a master’s degree in Public Administration from the University of Southern California. “I realize that I’m a ‘less than one percenter.’ It’s atypical for somebody like me because you’re probably the only one within your extended family that has earned one. As a result, many in the community don’t feel it’s achievable, but it is.”

It’s no accident he now leads Rock Creek. The campus is situated in one of the leading growth areas of Oregon—Washington County. It’s also the epicenter of population growth for Hispanics in the state. This is reflected in the changing demographics at PCC: 12.2 percent of the students are Latino, and at Rock Creek it’s more than 14 percent.

It’s important to Villa to show education is accessible and attainable for everyone. His career has focused heavily on student services and development—he’s been the vice president of Student Services at Los Angeles Mission College and Fresno City College, as well as taught doctoral and masters level courses within the Educational Leadership and Policy Studies Department at Cal-State Northridge.

Villa wants to be a role model to students who face the same challenges he did growing up. After his parents married in 1947, the Villa family (Chris and his four siblings, along with extended family) settled into East Los Angeles. It was a low-income, working-class neighborhood, with his mom serving as the homemaker of their 600-square-foot home and his father, a World War II Army vet, working in factories.
At his childhood home in East L.A. Villa wants to be a role model to students who face the same challenges he did growing up.

Remembering Leaders
Alice Jacobson, Mildred Ollee

During the past summer, Portland Community College lost two former leaders who helped to shape the campus communities they led.

From 1991–2004, Alice Jacobson served as executive dean and then as president of the Sylvania Campus after a stint as the college’s vice president for planning and development. Jacobson was involved with numerous community boards, committees, and professional development organizations throughout her career. She was commissioner with the Northwest Commission on Colleges and Universities and chaired the board at the National Institute for Leadership and Development, which is dedicated to increasing women in leadership roles in community colleges. Locally, she volunteered at Neighborhood House, a southwest Portland social services agency, and served on the board of the Equity Foundation of Oregon.

In 2001, Jacobson was awarded the American Association of Women in Community Colleges President of the Year distinction.

Mildred Ollee served as the Cascade Campus executive dean from 1995 to 2003 before leaving the college to become president of Seattle Central Community College. While at PCC, she managed a campus that doubled in student enrollment, from 8,400 to 15,500, built Cascade’s continuing education program that served Yamhill and Columbia counties, and nurtured the largest capital expansion project in the history of the campus. Ollee received numerous commendations for her work in the community, including the Earl Norman Leadership Award; the Central Alumni Award of Seattle University; the Award for Excellence in Administration from the American Association of Women in Community and Junior Colleges; the Benefit Guild Outstanding Service Award; and a listing in the “Who’s Who in Black America.”

Gov. Ted Kulongoski dedicated July 22, 2003 as Mildred W. Ollee Day around the state of Oregon for her accomplishments at PCC.

His father, who immigrated to the U.S. as a child in 1919, didn’t take advantage of the G.I. Bill but that didn’t mean education wasn’t important.

“He made the choice to work in factories all his life (to support his family),” Villa remembered. “But he, and especially my mother, pushed education on us kids.”

The young Villa was put through Catholic schools until college, which was an expensive choice for his hardworking parents. But the sacrifice of this choice paid off as it insulated him from the pitfalls many kids fall into at that age and in that neighborhood, from graffiti to gangs to drugs. So, he had to travel back and forth across town to Loyola High School, a predominantly white, upper-income Jesuit college prep school.

“I didn’t want to let them down,” Villa said. “We were recruited from the Eastside to go there. Half of us graduated, while the other half couldn’t make the cultural adjustment. My dad taught us to respect people from all cultures, and he instilled in us to value the freedom and opportunities of what this country has to offer. That philosophy was essential to my success.”

With the support of his parents and family, Villa catapulted to U.C. Irvine where he earned a bachelor’s degree in Social Ecology and got involved in social justice organizations, all of which furthered his skill sets.

As he talks about his life, it’s clear that it’s all come full circle for Dr. Chris Villa, the academic leader and role model. He ruminates about a theme to his story. Maybe it’s “Unlocking of Doors,” he said, because of family and community support he received that enabled him to soar academically. Bottom line, though, he wants to show PCC students who face similar challenges as he did, or the financial constraints his family endured, that college can be for them.

“Education has done a lot for me,” he said. “It’s the open door that has fulfilled my life and can fulfill theirs, too.”
MAKE **YOU** THE PROJECT!

If you can dream it, PCC Community Ed’s hundreds of classes can help you achieve it. Go online to pcc.edu/communityed and get started on your own Project: **YOU** this Winter.

My Project:
“To create a beautiful food cart business selling delicious, high-quality food.”

— Grace Mattioli, Owner of Paninoteca
paninotecapdx.com

student in So You Want to Start Your Own Business Series, Page 58