Reshaping the Educational Environment for Tomorrow’s Workforce

Imagine a state-of-the-art facility, stretching 1.2 million square feet, that brings innovative STEM, continuing education, and other instruction, flexible training labs, business incubator space, public-private partnerships, and nonprofit resources under one roof, all to benefit students and the community. This is happening now at Austin Community College—in a somewhat surprising location. ACC is transforming one of the first shopping centers in the Austin, Texas, area into a regional hub for higher education.

ACC’s vision calls for refurbishing the Highland Mall property into a modern educational environment and a center for community and business partnerships. Over the long term, space not used by the college will be available for mixed-use development, with the goal of creating a premier destination for lifelong learning, living, shopping, and entertainment.

Phase I
The college’s first renovation at Highland Mall converted 200,000 square feet of space formerly occupied by J.C. Penney. After breaking ground in the spring of 2013, ACC opened phase I of Highland Campus in August 2014 with almost 4,000 students. The campus offers a variety of options:

- Transferable core curriculum classes
- Developmental education to achieve college readiness
- Continuing education to enhance job skills

The campus includes innovative classrooms, computer labs, study areas, a library and media center, student commons area, and ACCelerator—the nation’s largest learning lab providing more than 600 computer stations for individualized instruction through technology.

Data from the U.S. Bureau of Labor Statistics and other sources shows that STEM jobs will grow faster than other jobs over the next decade and will pay higher wages overall for qualified employees. Many of these jobs will require a bachelor’s degree or higher, but others will not. In fact, STEM jobs requiring an associate degree are one of the fastest-growing job categories in the U.S. economy. This is good news for students and presents a viable pathway to the middle class for many people, yet there is a significant barrier: almost all high-growth, high-wage STEM occupations require significant math skills. Unfortunately, about 40 percent of students entering community colleges are not prepared for college-level math and must enroll in pre-college-level developmental courses. Most students who begin their college experience in developmental math struggle through several years of non-credit-bearing courses and eventually drop out. This is a serious problem for students and the economy, leaving large numbers of STEM jobs unfilled.

ACC is using the Highland Campus ACCelerator to revolutionize developmental education and help more students earn the credentials needed to succeed in the workforce. ACCelerator offers a new course, MATD 0421 (Developmental Math), that gives students the opportunity to complete more than one course, and possibly the entire developmental mathematics curriculum, in a single semester. If students need more time, they do not begin a new semester by studying skills they have already mastered. Instead, they begin wherever they stopped in the last semester.

The course uses adaptive learning software, called ALEKS, to customize coursework for each student. ALEKS is an artificially intelligent adaptive learning program that assesses students’ skills to determine current abilities and create a personalized learning plan. Students also receive individual attention from faculty, tutors, and academic coaches during class and open lab time. This model allows each student to more efficiently and effectively address his or her specific knowledge deficiencies, providing an accelerated route to the higher-level courses required in STEM pathways.

Initial results from the inaugural semester are promising. The course withdrawal rate is 7.5 percent, compared with 20 percent in traditional developmental courses. Of the 706 students enrolled in week 14 of the 16-week semester, 97 percent had completed the one-semester basic arithmetic course, with 64 percent continuing into the elementary algebra course. Students have provided extremely positive qualitative feedback, praising the personalized instruction and the high-touch, high-tech approach of the course. These results support the idea that students are more likely to persist to their goals through the effective integration of technology with active and collaborative learning and personalized interactions with faculty.
Phase II
The college’s academic master plan calls for a variety of programming for phase II of Highland, for both credit and continuing education students:

- Digital and creative media cluster
- Expanded IT programs (traditional and competency-based instruction)
- Culinary and hospitality center
- Professional incubator space
- Advanced manufacturing center
- Regional workforce innovation center
- Regional health sciences center with STEM simulator lab

With the approval of a bond package in November 2014, this work is in progress. The conversion will be transformative, with the site offering a host of advanced, contemporary spaces for instruction, research, and collaboration. A key aspect of ACC’s Highland planning involves making the facilities flexible—able to adapt to different training programs as the economy evolves and as new industries come to the forefront.

In addition, recognizing that ACC will not need the entire Highland space for some time, the college sought a partner to lease a four-story, 194,000-square-foot space once occupied by Dillard’s. Looking for an organization that aligns with the college mission, ACC is currently developing a partnership with Rackspace Hosting, a global technology company that provides managed cloud hosting services to many Fortune 100 companies. The partnership creates new opportunities for students in a high-demand field, enhances the college’s technology training, and ultimately helps ensure a pipeline of skilled workers for the region. In turn, Rackspace, one of the region’s top employers, will set up its offices at ACC Highland and benefit from proximity to the college.

This public-private partnership is a key aspect of what makes ACC Highland a new model for higher education. By bringing the college’s industry partners onsite, ACC Highland can immerse students in their field of choice from the start, enabling real-world experiences to enhance what happens in the classroom. This venture expands the traditional concept of the internship to encompass the entire academic and career-training process. Benefits to the college and its students include Rackspace-funded scholarships, internships, guest lecturers and adjunct instructors, continuing education for ACC faculty, and on-campus job fairs.

Collaborations of this nature are essential in STEM fields, with the rapidly evolving technology. Through this agreement, ACC’s curriculum and offerings will remain on the leading edge of developments in the IT sector and will ensure that a new generation of tech workers has the skills and training that are in demand by today’s employers. This kind of partnership is critical to reversing the nation’s STEM skills gap.

Moving Forward
ACC is using a variety of funding mechanisms to bring ACC Highland to fruition. The college funded phase I through student tuition and fees. District taxpayers approved bond funding for phase II. The renovation of the property for the Rackspace partnership will be privately funded by the partner developer.

In addition, RedLeaf Properties, which has partnered with ACC for the transformation of the Highland site, is developing plans for the mixed-use component of the project. Along with the 1.2 million square feet of classroom space, the site is eventually expected to include 800,000 square feet of office space, 150,000 square feet of retail space, 1,200 residential units, and 200 hotel rooms to accommodate 20,000 students, 6,800 employees, and 1,800 residents.

ACC is re-envisioning the future of higher education and the educational environment. A collaboration among business and education partners, neighborhood groups, and community leaders, ACC Highland is revitalizing an Austin landmark while expanding access to higher education, improving student success, and training an elite workforce for Central Texas and beyond.

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