THE FIRST OF ITS KIND IN THE NATION: 
An Open, Inclusive, Comprehensive, Polytechnic University

By Michael Lacourse, Provost and Vice President for Academic Affairs 
Dixie State University

CREATING A PREMIER UNIVERSITY FOR SOUTHWEST UTAH

The economic and cultural vitality of a growing region depends upon the resources and rich talent pipeline supplied by the local university. To provide the requisite number of talented graduates across multiple professions in a growing economy, universities must recruit and retain the most capable faculty and staff from across the globe and supply them with the resources to provide transformative learning experiences for their students. Creating a learning ecosystem and campus culture that continually attracts diverse students, faculty and staff requires careful planning and thoughtful consideration of the steps needed to amplify and reinforce that attraction.

With its unprecedented growth since transitioning to a four-year university seven years ago, Dixie State University (DSU) is well-positioned to become a premier educational institution serving the rapidly growing population of southwest Utah with talented graduates and resources that advance the economic and cultural vitality of the region.

Demographers predict that the Washington County (UT) population could reach nearly 500,000 by 2050. To put this population size into perspective, American cities with current populations hovering at 500,000 (excluding metro areas) include Atlanta, Sacramento, Kansas City, Miami, Raleigh and Omaha.

Located within most cities of this size, you will find one or more universities featuring enrollments of 20,000 or more students with premier programs and resources designed to significantly influence and enrich the regional economy and culture, while providing access to a range of exceptional educational opportunities. A sample of universities located in the comparable cities include Georgia Institute of Technology (Georgia Tech), Emory University, University of Missouri at Kansas City, University of Miami, North Carolina State University, Duke, and the University of Nebraska — some of the most respected and impactful universities in America.

Based on Washington County growth projections, there is less than 30 years to establish DSU as a high-performance university that will be home to hundreds if not thousands of exceptional faculty and staff. DSU will need to graduate the most talented scientists, engineers, managers, educators, health care professionals, artisans and leaders that can support the advanced industry sectors currently targeting Washington County, as well as local businesses and organizations that typify a region of 500,000 people. That is very little time to achieve so much, but that is the goal.

DSU faculty and staff recognize the urgency and have responded to the need to build a high enrollment-high impact university by adding 111 academic programs in five years. We recently established a new institutional mission and vision that will transform the University by supplying the framework for serving a much larger and more diverse student population, while also advancing regional economic growth and vitality by preparing highly skilled and work-ready professionals.

We based the new mission and vision on four fundamental design characteristics consistent with emerging trends in higher education and the likely future of work:

- Open Education
- Inclusivity
- Comprehensive programs and services
- Polytechnic academic model
Blending the basic features of these four characteristics will yield an American university unlike any other by creating broader and more inclusive access and opportunities for all individuals, regardless of background or academic ability. DSU will specialize in learning pathways leading to work and careers in current and emerging professions, especially those that require advanced expertise in science, technology, engineering, and mathematics.

THE COMPREHENSIVE POLYTECHNIC ADVANTAGE

Dixie State University’s (DSU) inaugural strategic plan launched in 2015 sought to transform the pre-existing organizational structures, policies, and practices originally designed for a community and state college into a new organizational model applicable to the more complex needs of a comprehensive university. Nested within that plan was the 2016 decision to pivot towards becoming a comprehensive polytechnic university. We selected the polytechnic academic model because it relies on the DSU instructional model of “active learning, active life” adopted in 2016, focuses intently on career preparation by graduating learner-workers, and best supports engagement in regional economic and workforce growth and development. Other universities in this category include California Polytechnic State University-San Luis Obispo, Georgia Institute of Technology, Virginia Polytechnic Institute and State University (Virginia Tech), Rensselaer Polytechnic Institute, New Jersey Institute of Technology, Oregon Institute of Technology, and many others.

DSU currently is and will continue to be a comprehensive university offering a variety of academic programs leading to associate, baccalaureate and graduate degrees as well as certificates, badges and other forms of academic certification. DSU will continue to feature and expand liberal arts and sciences as well as professional programs in education, business, health sciences, engineering, technology and the arts.

However, while continuing as a comprehensive university, DSU will also specialize as a 21st century polytechnic university featuring three core principles:

1. Active and applied (i.e., hands-on) student learning;
2. A laser focus on student career preparation and readiness;
3. A broad and deep collaboration with industry and organizations.

The university previously adopted active learning as a core instructional approach, but will now add applied learning, meaning that student learning will become increasingly hands-on. Instead of solving simulated problems in class, students will apply their knowledge and skills to solve real-world problems supplied by our industry and organization partners.

Preparation for a professional career and becoming work-ready will begin on day one of the student’s DSU experience and will continue through their first full-time job. The aim is that students be fully prepared and ready to work in their chosen profession immediately upon graduation. This preparation will incorporate multiple opportunities for work-based learning such as formal internships, cooperative learning (COOP), clinical education, student teaching, and other experiences designed to engage students in real world settings solving real world problems.

Industry collaboration is in the DNA of a polytechnic university, amplifying the impact of applied learning and career readiness. Maintaining curriculum relevance requires a continuous flow of feedback from community partners, while those same partners are essential for supplying work-based learning experiences and for providing real-world problems for students to solve in the classroom.
We have begun the fourth industrial revolution, characterized by a fusion of technologies that blur the lines between the physical, digital, and biological realms. For example, in a recent book, “Rethinking Humanity” by James Arbib and Tony Siba, it is noted that over the next 15-20 years,

“The prevailing production system will shift away from a model of centralized extraction and the breakdown of scarce resources ... to a model of localized creation from limitless, ubiquitous building blocks – a world built not on coal, oil, steel, livestock, and concrete but on photons, electrons, DNA, molecules and (q)bits.”

The coming shift to localized creation using physical, digital and biological technologies aligns with the polytechnic learning model and especially the emphasis on hands-on learning. The new “makerspace” located in Atwood Innovation Plaza is just one example of where students have unlimited access to the tools and technologies for “localized creation” that will better prepare them for future success.

**PROVIDING ACCESS AND OPPORTUNITY AS AN OPEN EDUCATION AND INCLUSIVE UNIVERSITY**

Within 30 years, DSU aims to become the baccalaureate university of first-choice for all Utahans as well as those living across the intermountain west. To become first choice, DSU will remove barriers to access and opportunity by creating a sense of belonging for everyone who wishes to learn from faculty and staff who are deeply committed to student learning and success.

The Utah System of Higher Education (USHE) designates DSU as one of three dual-mission public universities in the state. Simply stated, a dual-mission university serves both as a community college offering professional certificates and associate degrees and as a regional university offering baccalaureate and graduate degrees. DSU is also designated as an open-admissions university, meaning that all applicants who meet a minimum entry requirement are admitted without competition.

The university will continue to not only embrace both its dual-mission and open-admission requirements in the future, but also to extend and leverage these requirements for the greatest benefit to our students by creating a unique type of American university based on the core values of openness. These include collaboration, sharing, transparency, community, and inclusion, all enabled through the power and impact of advanced digital technologies and services.

Through our new mission and vision, DSU will implement the formal principles of “Open Education” recently established by a consortium of European universities that incorporates and extends the characteristics of a dual-mission and open admissions university. Open education capitalizes on advanced digital technologies and services to increasingly expand individual access to learning, improve collaboration with local, national and global partners, and create a culture of idea and information sharing.

In an open education environment, each individual, at every stage in their lives and career development, can have appropriate and meaningful educational opportunities available to them. This will include
virtual access to content, courses, learning support services, performance assessment and certification in ways that are flexible and accommodate the needs of our diverse southwest Utah population. Importantly, we will reduce or eliminate systemic barriers to learning, including admissions and cost.

DSU will supply students with broad access to open educational resources (OER) and practices for their classes. This means the cost of textbooks and other instructional materials will be reduced significantly and when possible provided free of charge. Faculty will collaborate with community partners and with colleagues from across the globe to share ideas and create the most up-to-date courses, programs and classroom materials, ensuring that students learn the most current and applicable knowledge and skills and upon graduation are ready to work immediately. This collaboration will further strengthen ties with K-12, Dixie Tech, and other organizations that supply professional development and other types of learning experiences.

Educational content is everywhere and both formal and non-formal learning are ubiquitous in today’s world. DSU is expanding policies and practices that recognize and promote all paths to learning while creating new and innovative ways to convert non-formal learning such as military experience and on-the-job training into academic credentials. This will also include improved access to learning through expanded online classes and programs and other technology-based learning opportunities.

Innovation and entrepreneurship will continue as the hallmark of DSU. We are rapidly becoming a national center of excellence for innovation and entrepreneurship through the high impact work at Atwood Innovation Plaza that has produced 135 patent applications and incubated dozens of new businesses, most of which come from students. We will deploy tech tools such as apps and software to support broad and diverse teams of citizen scientists, innovators and entrepreneurs collaborating alongside faculty, staff and students in communities of discovery, innovation and entrepreneurship.

By embracing inclusion, DSU will make learning accessible to everyone. Faculty and staff will value and promote diversity and equality of opportunity, particularly with regard to disability, gender, age and ethnicity. Inclusive teaching methods will be adopted by faculty to create a sense of “belonging” that is known to improve learning and persistence, especially for students from historically underrepresented groups and students with disabilities. Building a sense of belonging for students from underrepresented groups and for students with disabilities will also require partnerships with social and professional networks as well as human services organizations who can augment campus support services to elevate student success.

DSU must and will build a new type of public university uniquely designed to prepare students for the rapidly evolving world of work and citizenship. Fulfilling the mission and vision as an open inclusive university means being committed to building a university based on a core set of values including collaboration, sharing, transparency, community and inclusion. We believe every person has the potential to succeed in work and life if given access and opportunity to learn. DSU will provide that access and opportunity as a core characteristic of being a premier public university and a university of first choice.