Biography of President Tim Sands

Timothy D. Sands is the 16th president of Virginia Polytechnic Institute and State University and a professor in the College of Engineering. Since joining Virginia Tech in 2014, he has worked collaboratively with the provost and university leadership to set the university on track to become a leading modern, global, land-grant institution. Virginia Tech's strategic plan and vision, The Virginia Tech Difference: Advancing Beyond Boundaries, aligns the university with the emerging needs and opportunities of a rapidly changing world in the context of the evolving higher education landscape.

Under President Sands' leadership, undergraduate enrollment has been increased by 5,000 to achieve the benefits of scale while preserving the strong sense of community rooted in our motto, *Ut Prosim* (That I May Serve). Student interest in Virginia Tech has grown continuously, as reflected in the doubling of applications from first-time prospective students. Student success has been a priority, with four-year graduation rates increasing from 61 to 70 percent.

President Sands initiated InclusiveVT in 2015, leading an effort that has increased the enrollment of underrepresented minority (URM) students by 88 percent while closing the 4-year graduation rate gap from 10 percentage points to 1 percentage point. URM and underserved students (Pell-eligible, first-generation, and veterans) now make up nearly 40 percent of the entering class, including transfers.

Virginia Tech remains a leader in research and innovation with over $500M in annual expenditures, but with a renewed focus on moving into the upper tier of land-grant research universities in terms of impact and extramural research expenditures. Expansion of the health sciences in the Fralin Biomedical Research Institute at the Virginia Tech Carilion Health Sciences and Technology campus in Roanoke, the Virginia Tech Carilion School of Medicine, and a partnership with Children's National Hospital's Research and Innovation Campus in Washington D.C. are central to enhancing Virginia Tech's research and innovation profile and its impact on the communities we serve.

The university's residential campus in Blacksburg is being transformed with an emphasis on living-learning experiences, transdisciplinary collaboration, and sustainability. Recent developments include a Creativity and Innovation District, the launch of a Global Business and Analytics Complex, and expanded facilities for the Virginia Tech Corps of Cadets. A new Multi-modal Transit Facility and upgraded environmental infrastructure are part of the university's Climate Action Commitment to reduce transportation greenhouse gasses by 40 percent and achieve carbon neutrality by 2030.

Virginia Tech's 3.5-acre Innovation Campus in the greater Washington D.C. area is the centerpiece of a technology education strategy that helped bring Amazon's east coast headquarters to Arlington, VA. The campus is part of a bold new vision for graduate education in computer science and computer engineering, preparing leaders and pursuing research to take on big problems amid a digital revolution that is changing the way we live, work, and think. A partnership with Northrop Grumman will establish a new Center of Quantum Architecture and Software Development, and the university recently announced a partnership with Boeing and the Commonwealth to create the Boeing Center for Veteran Transition and Military Families. Virginia Tech is also leading the Commonwealth Cyber Initiative to establish a "global center of excellence at the intersection of security, autonomous systems, and data."

President Sands' vision is supported by a global community of alumni, friends, and partners. Virginia Tech's Advancement division continues to see record-breaking generosity and engagement, allowing the university to increase its fundraising goal from $1.5 billion to $1.872 billion and engage 100,000 Hokies as part of Boundless Impact: The Campaign for Virginia Tech.

President Sands' recent awards and honors include The Edward Bouchet Legacy Award, the National GEM Consortium's Academic Leadership Award, the Virginia Latino Higher Education Network's Leadership Impact Award, and the Roanoke-Blacksburg Technology Council's Regional Leadership Award.

He has published more than 250 refereed papers and conference proceedings and has been granted 21 patents in electronic and optoelectronic materials and devices. His recent research efforts have focused on the design and development of novel nanocomposite materials for environmentally friendly and cost-effective solid-state lighting, direct conversion of heat to electrical power, and thermoelectric refrigeration. He holds faculty appointments in the Bradley Department of Electrical and Computer Engineering and the Department of Materials Science and Engineering in the College of Engineering, with research interests in microelectronics, optoelectronics, and nanotechnology. He is a fellow of the Institute of Electrical and Electronics Engineers, the Materials Research Society, and the National Academy of Inventors.

As part of his civic engagement and community leadership, President Sands chairs the board of directors for the Business-Higher Education Forum (BHEF) and the Virginia Space Grant

Consortium. He serves on the Executive Committee of the Board of Directors of the Northern Virginia Technology Council (NVTC) and is a member of the Boards of the Atlantic Coast Conference (ACC), the University Research Alliance (URA), and is an ex-officio member of the Board of the Northern Virginia Chamber of Commerce. He is also a member of the Board of Visitors of the National Intelligence University.

Before coming to Virginia Tech, President Sands was executive vice president for academic affairs and provost of Purdue University in West Lafayette, Indiana, serving as acting president in 2012. Throughout his career, he has participated in and led research teams and academic programs that have been characterized by open collaboration across a wide array of disciplines. Before becoming provost, President Sands served as the Mary Jo and Robert L. Kirk Director of the Birck Nanotechnology Center in Purdue's Discovery Park. He was a professor of materials science and engineering at the University of California, Berkeley, and also directed research groups at Bell Communications Research (Bellcore) in Red Bank, New Jersey.

President Sands earned a bachelor's degree with highest honors in engineering physics and a master's degree and a doctorate in materials science from the University of California, Berkeley. He joined the Purdue faculty in 2002 as the Basil S. Turner Professor of Engineering in the schools of Materials Engineering and Electrical and Computer Engineering.

President Sands is joined at Virginia Tech by his wife, Dr. Laura Sands, a professor of gerontology in the Department of Human Development at Virginia Tech. All four of their children are proud members of the Virginia Tech community. Follow President Sands on Twitter and Instagram at @VTSandsman.