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OVERVIEW

OFFICE FOR STRATEGIC AFFAIRS

The Office for Strategic Affairs plays an integral role at Virginia Tech in strategic and continuous planning and the exploration of Virginia Tech's history.

Building upon Beyond Boundaries, the Office for Strategic Affairs collaborates with the Virginia Tech community to understand challenges and opportunities, guide strategic and continuous planning, and help advance the university through feasible, measurable, and sustainable objectives.

The Office for Strategic Affairs also leads the Council on Virginia Tech History to explore how Virginia Tech recognizes and acknowledges its history in the context of today. As part of this process, the Council engages with the university community to document Virginia Tech's history and its connection to the histories of the Commonwealth of Virginia and the nation.

STRATEGIC PLANNING LEADERSHIP TEAM

Menah Pratt-Clarke

Vice President for Diversity, Inclusion, and Strategic Affairs

Erin McCann

Director for Strategic Planning

Patty Becksted

Assistant Director for Strategic Planning

Lauren Henson

Program Coordinator for Strategic Affairs

Meghan Marsh

Program Coordinator (Communications) for Strategic Affairs

Shahidur Rashid Talukdar

Graduate Student Assistant

Stacey Wilkerson

Graduate Student Assistant

STRATEGIC PLANNING STEERING COMMITTEE

Charge: To guide the university strategic planning process in collaboration with the Strategic Planning Leadership Team based on Virginia Tech's Beyond Boundaries vision

Menah Pratt-Clarke, Chair

Vice President for Diversity, Inclusion, and Strategic Affairs

Patty Becksted

Assistant Director for Strategic Planning

Ronald Fricker

Associate Dean for Faculty Affairs and Administration, College of Science

Matthew Holt

Professor and Department Head, Agricultural and Applied Economics

Sylvester Johnson

Professor and Director of the Center for Humanities

Anne Khademian

Professor and Presidential Fellow

Lara Khansa

Associate Professor and Associate Dean for Undergraduate Programs, Pamplin College of Business

Benjamin Knapp

Professor and Director, Institute for Creativity, Arts, and Technology

Theresa Mayer

Vice President for Research and Innovation

Erin McCann

Director for Strategic Planning

Mallory Miller

Project Director for Academic Resource Management

Laurel Miner

Chief of Staff to the Vice President for Research and Innovation

STRATEGIC PLANNING ADVISORY COMMITTEE

Charge: To collaborate, assist, and offer recommendations for the university's strategic planning efforts based on Virginia Tech's Beyond Boundaries vision

Menah Pratt-Clarke, Chair

Vice President for Diversity, Inclusion, and Strategic Affairs

Catherine Amelink

Assistant Vice Provost for Learning Systems Innovation and Effectiveness

Patty Becksted

Assistant Director for Strategic Planning

Jennifer Case

Professor and Department Head, Engineering Education

Chelsea Corkins

Graduate Student Representative

Tom Crawford

Professor and Department Head, Geography

Jeff Earley

Associate Vice Provost for Finance

Matthew Ferby

Graduate Student Representative

Ronald Fricker

Associate Dean for Faculty Affairs and Administration, College of Science

Bryan Garey

Vice President for Human Resources

Robert Gourdie

Professor, Biomedical Engineering and Mechanics and Director, Center for Heart and Reparative Medicine Research, Fralin Biomedical Research Institute

David Guerin

Associate Vice Provost for Communications

James Harder

Research and Project Specialist, Center for Excellence in Teaching and Learning

Kwame Harrison

Associate Professor, Sociology

Erin Helle

Graduate Student Representative

Steve Holbrook

Professor and Department Head, Geosciences

Matthew Holt

Professor and Department Head, Agricultural and Applied Economics

Laura Hungerford

Professor and Department Head, Population Health Sciences

Benjamin Jantzen

Associate Professor, Philosophy

Sylvester Johnson

Professor and Director of the Center for Humanities

Anne Khademian

Professor and Presidential Fellow

Lara Khansa

Associate Professor and Associate Dean for Undergraduate Programs, Pamplin College of Business

Benjamin Knapp

Professor and Director, Institute for Creativity, Arts, and Technology

Bill Knocke

Professor, Civil & Environmental Engineering

Brandon Lambert

Undergraduate Student Representative

Theresa Mayer

Vice President for Research and Innovation

Erin McCann

Director for Strategic Planning

Mallory Miller

Project Director for Academic Resource Management

Laurel Mine

Chief of Staff to the Vice President for Research and Innovation

David Musick

Professor and Associate Dean for Faculty Affairs, Virginia Tech Carilion School of Medicine

Mercedes Ramirez Fernandez

Associate Vice Provost for Strategic Affairs and Diversity

Karen Roberto

University Distinguished Professor and Director, Institute for Society, Culture and Environment

Marcy Schnitzer

Assistant Provost for Diversity and Strategic Planning

Savita Sharma

Chief of Staff to the Vice President for Finance

Angela Simmons

Assistant Vice President for Student Affairs

Tammie Smith

Business Operations Specialist, Enrollment Management Communication

Nick Stone

Director, National Capital Region Operations

Paige Talley

Undergraduate Student Representative

Lisa Wilkes

Vice President for Business Affairs

Kenneth Wong

Associate Dean of the Graduate School National Capital Region, Director of Northern Virginia Center

STRATEGIC PLANNING METRICS AND RANKINGS SUB-COMMITTEE

Charge: To explore metrics and rankings as part of the university's strategic planning efforts

Ronald Fricker, Co-Chair

Associate Dean for Faculty Affairs and Administration, College of Science

Lara Khansa, Co-Chair

Associate Professor and Associate Dean for Undergraduate Programs, Pamplin College of Business

Mallory Miller, Co-Chair

Project Director for Academic Resource Management

Catherine Amelink

Assistant Vice Provost for Learning Systems Innovation and Effectiveness

Patty Becksted

Assistant Director for Strategic Planning

Lauren Bulka

Associate Director for Strategic Initiatives, National Capital Region

Jeff Earley

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Vijay Singal

J. Gray Ferguson Professor of Finance

Kenneth Wong

Associate Dean of the Graduate School National Capital Region, Director of Northern Virginia Center

STRATEGIC PLANNING RESEARCH SUB-COMMITTEE

Charge: To explore opportunities and challenges for strategically advancing research and innovation as part of the university's strategic planning efforts

Matthew Holt, Co-Chair

Professor and Department Head, Agricultural and Applied Economics

Benjamin Knapp, Co-Chair

Professor and Director, Institute for Creativity, Arts, and Technology

Theresa Mayer, Co-Chair

Vice President for Research and Innovation

Catherine Amelink

Assistant Vice Provost for Learning Systems Innovation and Effectiveness

Patty Becksted

Assistant Director for Strategic Planning

Karen DePauw

Vice President and Dean for Graduate Education

Tom Dingus

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Laura Hungerford

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Loy Van Crowder

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Kenneth Wong

Research Assistant Professor and Associate Dean of the Graduate School National Capital Region, Director of Northern Virginia Center

STRATEGIC PLANNING VISION AND MISSION SUB-COMMITTEE

Charge: To analyze ongoing feedback received on evolving drafts of the university's mission and vision statements as part of the university's strategic planning efforts

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Assistant Director for Strategic Planning

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Associate Vice Provost for Communications

Matthew Holt

Professor and Department Head, Agricultural and Applied Economics

Laura Hungerford

Professor and Department Head, Population Health Sciences Erin McCann

Director for Strategic Planning

Angela Simmons

Assistant Vice President for Student Affairs

BUILDING UPON BEYOND BOUNDARIES

Led by President Tim Sands from 2015 to 2017, Beyond Boundaries: A 2047 Vision

(www.beyondboundaries.vt.edu) culminated in a generational visioning process to position Virginia Tech as an internationally recognized land-grant university that strategically addresses the challenges and opportunities presented by the changing higher education landscape. Beyond Boundaries identified three guiding concepts to transform Virginia Tech into the university of the future: VT-shaped Discovery, Communities of Discovery, and Nexus of Discovery.

VT-shaped Discovery at Virginia Tech relies on purpose-driven and person-centered curriculum grounded in flexible and personalized education. Rather than leverage traditional higher education models in which degrees remain siloed from one another, Virginia Tech will ensure students benefit from a fully integrated and more effective curriculum of diverse experiences.

Communities of Discovery enhance experiential learning to reflect the communities in which Virginia Tech serves. Through Communities of Discovery, Virginia Tech will extend beyond its physical footprint through distance-learning and non-campus spaces that are both publicly and privately operated; led by mentors, faculty, industry partners, and alumni who equip students with necessary real-world collaborative decision-making.

Virginia Tech, as a Nexus of Discovery, will realign educational goals toward degrees anchored in transdisciplinary education and collaborate with local communities to solve complex societal challenges. These intersections will foster enhanced collaboration between communities, disciplines, educators, industry partners, and philanthropic partners.

Integral to this transformation is Virginia Tech's continued commitment to *Ut Prosim* (That I May Serve), academic excellence and world-class research; engaging the whole person; innovation; and affordability and accessibility. These principles have informed the strategic planning process and initial steps toward achieving Virginia Tech's Beyond Boundaries vision.

DEVELOPING THE STRATEGIC PLANNING FRAMEWORK

The strategic planning process, which began in fall 2017, involved significant iteration, engagement, and collaboration with the university community. In early 2018, the Strategic Planning Leadership Team and Committees gathered knowledge about the university and the Beyond Boundaries vision and engaged in three full day retreats that included presentations by all colleges, institutes and several administrative units. Subcommittees were developed to explore opportunities and challenges for strategically advancing research and innovation, explore rankings and metrics as part of the strategic planning process, and analyze ongoing feedback received on the vision and mission statements. Committee members also oversaw a separate research strategic planning process.

In spring 2018, the Strategic Planning Leadership Team hosted town halls and engaged with more than 19 commissions, committees, student and alumni groups to share updates and gather feedback on initial drafts of the vision, mission, core values, and strategic objectives. After synthesizing the Beyond Boundaries goals and emerging themes from these discussions, the Strategic Planning Leadership Team presented updates and received feedback from President Tim Sands, Provost Cyril Clarke, and the Board of Visitors.

Throughout fall 2018, the Strategic Planning Leadership Team and Committee members updated the strategic planning framework and continued to provide the university community with new opportunities for engagement and feedback. These conversations and feedback sessions took place across geographic locations including Blacksburg, Roanoke, Alexandria, Arlington, and Falls Church involving faculty, staff, students, alumni, and external advisory board members from various disciplines, levels, colleges, institutes, and units.

Faculty, staff, students, and alumni from various disciplines and at all levels across the university participated in the strategic planning process and feedback sessions. Of the participants who attended the events, over 1070 individuals agreed to provide feedback in various written or digital forms, including approximately 275 participants in Roundtable Discussions, 270 participants at the Diversity Summit, and over 525 participants in Fall Engagements. Feedback submitted in writing, digitally, as well as shared verbally helped inform ongoing, iterative updates to the strategic planning materials throughout this process (See Appendix A for more detailed strategic planning process data analysis).

In spring 2019, the Office of Strategic Affairs began drafting the final Strategic Plan for Virginia Tech. White papers on the design and use of metrics, rankings, and the Partnership for an Incentive-Based Budget (PIBB) model were also developed (see Appendix B for these white papers). Drafts of the Strategic Plan were shared with the Committee members and presented to the Board of Visitors in April. The final version was presented in June 2019.

OUALITATIVE DATA COLLECTION AND ANALYSIS PROCESS

Data collection methods included Google forms (both individual and group responses), emails to the Office for Strategic Affairs, verbal conversations, and group collaboration report-outs from campus engagements. Based on the types of engagements, the raw data collected were grouped into three categories:

- 1) Roundtable Discussions,
- 2) Diversity Summit, and
- 3) Fall Engagements.

The raw data were then coded line-byline using an open coding process.

Continual data analysis allowed for identification of emerging themes (see Figure 1 for emerging themes from

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	ROUNDTABLE DISCUSSIONS	1. Teaching, learning, and research	8. Experiential and service learning
		2. Personal and professional growth of students	9. Hiring and retention
		3. Streamlining functions and processes	10. Engaging alumni and philanthropies
		4. Diversity and inclusion	11. Outreach and community engagement
		5. Strategic use of resources	12. Ut Prosim (That I May Serve) and service
		6. Increasing revenues and endowment	13. Reducing cost
		7. Partnership and collaboration	14. Reputation and branding
	DIVERSITY	1. Diversity and inclusion	6. Collaboration and partnerships
		2. Community engagement	7. Innovative teaching and research
		3. Experiential and service learning	8. Strengthening capabilities
		4. Research for real world impact	9. Rewards and incentives
		5. Teaching, research, and service	10. Access and affordability
	FALL ENGAGEMENTS	1. Ut Prosim (That I May Serve) and land-grant mission	6. Facilities, space, and infrastructure
		2. Student success	7. Innovative teaching and curriculum
		3. Faculty and staff	8. Diversity and inclusion
		4. Research and discovery	Virginia Tech footprint and programs
		5. University processes and financial resources	10. Technology

Figure 1: Emerging Themes from Strategic Planning Engagements

strategic planning conversations and feedback sessions), related concepts, and suggestions (see Appendix A for a more detailed strategic planning process data analysis). White papers were also created on metrics, rankings, and the Partnership for an Incentive Based Budget model (see Appendix B for all white papers).

DIVERSITY STRATEGIC PLANNING PROCESS

The Virginia Tech Difference: Advancing Beyond Boundaries marks the first university-wide strategic plan to integrate inclusion and diversity as a key university priority. Previously, diversity strategic plans were separate from university-wide strategic plans.

Prior to the development of this university-wide plan, the Office for Inclusion and Diversity coordinated the diversity strategic planning process for all administrative units, colleges, and departments. From 2017 to 2018, each unit was asked to formulate a plan addressing the four key goals of InclusiveVT—the institutional and individual commitment to *Ut Prosim* (That I May Serve) in the spirit of community, diversity, and excellence. The four goals include institutionalizing structures to promote sustainable transformation; increasing faculty, staff, and student diversity; ensuring a welcoming, affirming, safe, and accessible campus climate; and advancing the academic mission through inclusion and diversity.

The diversity strategic planning process was divided into three sections: overview of structure and assessment of representational diversity; summary of current initiatives on climate, inclusion, and advancing the academic mission; and developing action items and timelines (see pages 10-14 of Appendix C for a template of diversity strategic plans). Unit diversity plans were developed by deans and administrators then reviewed by the Office of Inclusion and Diversity. As the Strategic Plan moves to implementation, unit-level diversity strategic plans will help ensure alignment between unit-level and university-level priorities, goals, and milestones.

RESEARCH STRATEGIC PLANNING PROCESS

Over the course of 2018 and early 2019, the Office of the Vice President of Research and Innovation led a series of strategic discussions with hundreds of members of Virginia Tech's research community and discussions with external stakeholders to establish priorities for advancing Virginia Tech's research enterprise. These conversations included one-on-one conversations; half-day community engagements; faculty surveys; literature reviews; blue-sky, open-ended innovation sessions; and focused brainstorming on specific topics.

The Office of the Vice President of Research and Innovation also engaged several partners and conducted landscape analysis to inform the research strategic planning process (see pages 1-5 of Appendix C for a more detailed discussion of the research strategic planning process). These efforts included partnering with the Education Advisory Board; engaging with RTI International and the Virginia Research Investment Committee; participating on the Virginia Research Investment Committee Implementation Advisory Team; evaluating current technology commercialization operations, which included a climate survey to evaluate needs and opportunities; and initiating a landscape analysis for shared research laboratories.

Throughout the engagements, several themes and priorities emerged. Strategic Planning Committees reviewed data and conclusions provided by the research strategic planning process as well as university-wide qualitative data analysis to refine and affirm Virginia Tech's research mission, vision, and core values. Several high-level priorities are reflected in the Strategic Plan, and more in-depth, granular strategies and initiatives will be described in forthcoming implementation and strategic plans for the research enterprise.

STRATEGIC PLAN FRAMEWORK

MOTTO

Our motto, Ut Prosim (That I May Serve), emphasizes our commitment to serve individuals and society.

VISION

Virginia Tech will be a global leader by inspiring and empowering people to learn, innovate, and serve beyond boundaries.

MISSION

Inspired by our land-grant identity and guided by our motto, *Ut Prosim* (That I May Serve), Virginia Tech is an inclusive community of knowledge, discovery, and creativity dedicated to improving the quality of life and the human condition within the Commonwealth of Virginia and throughout the world.

CORE VALUES

The Strategic Planning Committees created eleven initial core values informed from feedback from the university community. The eleven core values were consolidated into the four core values below:

DIVERSE AND INCLUSIVE COMMUNITIES: We value the educational benefits of diverse ideas, peoples, and cultures in order to contribute to the equitable inclusion and just engagement of the world's communities through collaboration and partnerships, guided by open expression, self-awareness, and mutual respect.

KNOWLEDGE AND INNOVATION: We value lifelong learning and freedom of inquiry through research, innovation, and the creative process within and outside of the university to promote the continuous seeking of knowledge to enhance society and address difficult and complex issues affecting the human condition.

OPPORTUNITY AND AFFORDABILITY: We value providing affordable educational opportunities for the Commonwealth of Virginia consistent with our land-grant mission.

EXCELLENCE AND INTEGRITY: We value continuous evaluation, improvement, and excellence to advance individual and institutional objectives with the highest standards of integrity and ethical behavior.

INITIAL CORE VALUES DEVELOPED BY STRATEGIC PLANNING COMMITTEES

UT PROSIM (THAT I MAY SERVE): Our motto, *Ut Prosim* (That I May Serve), emphasizes our value and commitment to service to individuals and society.

DIVERSE COMMUNITIES: We value the educational benefits of diverse ideas, peoples, and cultures in order to contribute to the just engagement of the world's communities.

OPPORTUNITY AND AFFORDABILITY: We value affordable educational opportunities for the Commonwealth of Virginia consistent with our land-grant mission.

COLLABORATION AND PARTNERSHIPS: We value collaboration and the collective value of using multiple perspectives to address difficult and complex issues.

MUTUAL RESPECT AND OPEN EXPRESSION: We value and promote open expression, self-awareness, and mutual respect.

ETHICS AND INTEGRITY: We value the highest standards of integrity and ethical behavior in academics and personal and professional relationships.

INCLUSIVE ENVIRONMENT: We value equitable inclusion and the quality of relationships between faculty, staff, and students to ensure an inclusive, welcoming, and affirming living-learning-working environment.

LIFELONG LEARNING: We value lifelong learning and inquiry within and outside of the university for personal growth and to promote the continuous seeking of knowledge to enhance society.

DISCOVERY AND INNOVATION: We value research, innovation, and the creative process.

FREEDOM OF INQUIRY AND ACADEMIC EXCELLENCE: We value freedom of inquiry and an environment that supports academic excellence.

CONTINUOUS EVALUATION AND IMPROVEMENT: We value continuous evaluation and improvement to advance individual and institutional objectives.

STRATEGIC PRIORITY 1: ADVANCE REGIONAL, NATIONAL, AND GLOBAL IMPACT

Aspirational Vision:

Virginia Tech will be globally recognized for its research strengths, world-class faculty, and ability to integrate its learning, discovery, and engagement missions as a comprehensive research land-grant university. Virginia Tech will prepare graduates to contribute and lead in a complex world by offering person-centered and purpose-driven student experiences designed to educate the whole person. Virginia Tech's impact will be regional, national, and global.

Goal 1: Increase excellence in research, discovery, and creativity

Goal 2: Increase teaching and learning excellence for a holistic education

Goal 3: Increase institutional impact and visibility

INITIAL MILESTONES:

- Increase extramural research expenditures to \$480M by 2024
- Achieve Top 10 US public land-grant (WSJ/THE US College Rankings) by 2024
- Achieve Top 13 US land-grant (THE World University Rankings) by 2024
- Ensure 100% of academic majors have a required experiential learning component by 2024
- Reach 30,000 undergraduate students by 2023
- Increase graduate student enrollment to 22% of undergraduate enrollment by 2024 (includes Innovation Campus Master Degree Students)
- Achieve Top 1/3rd (66th percentile) of internationally and nationally recognized faculty awards by
 2022
- Achieve Top 1/3rd (66th percentile) of internationally and nationally recognized faculty publications and citations by 2022
- Increase the diversity (number of countries represented) of international faculty to 100 by 2024
- Increase the diversity (number of countries represented) of international students by reducing the representation from the top two countries to no more than 50% by 2024
- Advance the Rural Virginia Initiative with 20 funded projects by 2022

PROPOSED ACTION STEPS:

- Leverage Research Institutes to coordinate and align investments in faculty and shared research facilities to catalyze collaboration and build teams for center-level research programs
- Continue to develop and support department-level faculty scholarship expectations by discipline, including relevant metrics and peer comparison groups
- Develop an integrated strategy for expanding and enhancing Virginia Tech's international presence
- Further develop Virginia Tech Carilion partnership and presence in Roanoke
- Launch the Innovation Campus and develop an integrated strategy for Virginia Tech's presence in the greater Washington, D.C., area
- Collaborate with partners across Virginia to build strong research and innovation programs supporting the Commonwealth Cyber Initiative
- Develop and enhance the number and quality of partnerships with industry, other universities, and state and federal agencies
- Build upon opportunities for student and faculty engagement in transdisciplinary programs, such as Transdisciplinary Communities (Destination Areas and Strategic Growth Areas) and Interdisciplinary Graduate Education Programs
- Advance engagement of Virginia Cooperative Extension and the Virginia Agricultural Experiment
 Station with a diverse set of external partners through the Agricultural and Natural Resources initiative
- Optimize the research infrastructure for the size and diversity of the enterprise, including the creation
 of centrally funded world class research facilities, and providing the requisite laboratory and
 administrative support to facilitate research
- Secure at least two externally funded national center-level awards
- Explore central funding support for faculty presentations at international conferences
- Develop a strategic vision for distance learning
- Expand support for experiential learning, personalized learning, and living-learning programs that will enhance the student learning experience
- Develop a strategy and coordinated process for colleges to address the needs of underserved communities, including opportunities through the Rural Virginia Initiative
- Continue to support technology transfer for economic and human impact as supported and protected through the collaborative efforts of an integrated Discovery to Market (D2M) model

CURRENT INITIATIVES:

Institutes and Research Centers

The Research Institutes of Virginia Tech (www.research.vt.edu/institutes) enhance the university's ability to address large-scale research opportunities by crossing traditional disciplinary and college lines. The institutes provide access to world-class expertise across many disciplines and advance research and productivity through shared assets, facilities, equipment, and knowledge. The Research Institutes, as well as Research Centers, Labs, and Groups, help position Virginia Tech to contribute impactful research that serves the Commonwealth of Virginia and the world.

VT-shaped Student Experience

Beyond Boundaries affirms the importance of innovative applications in teaching and learning. One area of focus broadens current curricular models beyond what is considered "T-shaped" learning education, focused on disciplinary depth enhanced with transdisciplinary experience. In addition to "T-shaped" learning, Virginia Tech will build VT-shaped experiences for students to learn through person-centered and purpose-driven experiences that are both inclusive and flexible. VT-shaped learning aligns academic objectives with real-world problems and supports students' engagement with *Ut Prosim* (That I May Serve) throughout their education. This unique learning model will accommodate students' varying academic paths to prepare them for the diverse and complex social challenges of the future.

Pathways General Education Curriculum

The Pathways General Education Curriculum (www.pathways.prov.vt.edu/about) provides students with a vibrant, flexible, meaningful general education program. Undergraduate students take 45 Pathways credits inclusive of disciplines and domains in discourse, critical thinking in the humanities, reasoning in the social sciences, reasoning in the natural sciences, quantitative and computational thinking, critique and practice in design and the arts, as well as critical analysis of identity and equity in the United States. All core concepts relate to broader integrative concepts of ethical reasoning and/or intercultural and global awareness that engage students in principles of integration, inclusivity, and relevance. Students may choose to complete a Pathways Minor that builds upon the general education requirement or complete their general education through alternative methods such as study abroad. Pathways General Education Curriculum reaches beyond traditional higher education and reimagines how students apply their focus areas in unique and innovative settings.

Experiential Learning

Degree-embedded experiential learning at Virginia Tech is characterized by an approach that builds skills and competencies through experience across the curriculum for all students in the discipline. Extending students' traditional classroom learning to tackle authentic problems and work in context motivates students to synthesize theory, concepts, and habits of mind.

The concept of a VT-shaped education provides a framework to plan and implement learning experiences with flexibility and challenge in order for students to become agents of their personal and professional development. Through experiential learning, each Virginia Tech student will have a unique learning journey through curricular, co-curricular, and personal learning opportunities. Through this journey, they will discover new ideas, new talents, and what motivates them. Faculty engaged in intentional planning, development, and implementation of degree-based experiential learning will facilitate a purpose-driven educational journey for all Virginia Tech students (see Appendix D for more discussion on experiential learning).

Transdisciplinary Education and Communities

Transcending traditional plans of study centered around one discipline, Transdisciplinary Communities seek to prepare students with the necessary critical thinking skills and innovative problem-centered mindset to effectively drive change after graduation by offering problem-centered experiences implemented through innovative minors, course curriculum, and engagement programs like internships. Areas of focus combine academic and research strengths with innovative transdisciplinary teams, tools, and processes. Current areas include Adaptive Brain and Behavior, Creativity and Innovation, Data and Decisions, Economical and Sustainable Materials, Equity and Social Disparity in the Human Condition, Global Systems Science, Integrated Security, Intelligent Infrastructure for Human Centered Communities, and Policy. Transdisciplinary education goes beyond supplementary gaps of interdisciplinary learning to provide a broader and immersive learning environment.

Presence in the Greater Washington, D.C., Area

The university's presence in the greater Washington, D.C., area is a strategic resource for advancing Virginia Tech. Virginia Tech's presence in the area began in 1949 and has grown over the past five decades to include multiple graduate degree and research programs and the establishment of three primary urban locations in Alexandria, Arlington, and Falls Church (www.ncr.vt.edu). The university's presence is bolstered by approximately 160 faculty including approximately 60 tenure-track faculty across seven colleges and five Research Institutes. Fifteen percent of the university's sponsored research is generated by faculty based in the area. A similar percentage of graduate students receive their degrees in the region. The university partners with local governments, organizations, and businesses, and the university's presence in the area supports multiple experiential learning programs. Transdisciplinary learning priorities complement job force needs of the greater Washington, D.C., area including science and technology, business and innovation, data-driven decision-making and policy, integrated security, and intelligent infrastructure.

The relationship between the university's presence in the greater Washington, D.C., area and the main Blacksburg campus allows Virginia Tech to leverage its locations to respond to dynamic social groups and regional variation that translates to global discovery. Significant population density differences, cultural and ethnic diversity, regional wealth disparity, technology ecosystems, and urban versus rural living labs position Virginia Tech to innovate across multifaceted environments. Virginia Tech is well placed to support innovation, growth, and development that could foster economic opportunities and advance the human condition (see pages 1-7 of Appendix E for more discussion on Virginia Tech's presence in the greater Washington, D.C., area).

Virginia Tech Innovation Campus

The <u>Virginia Tech Innovation Campus</u> (www.vt.edu/innovationcampus) will expand the university's graduate and research programs while also expanding the university's existing fifty-year presence in greater Washington D.C., area. The campus will serve as a leading magnet for high-tech talent and innovation while increasing regional and national competitiveness in the high-tech sector. Arising out of a historic higher education package that Virginia included in its Amazon HQ2 (new Amazon headquarters) proposal, the Innovation Campus will complement significant expansion in Blacksburg, support a full range of partnerships with leading public and private entities, provide a comprehensive education that traverses disciplines, and deliver on the university's land-grant mission by transforming the regional and state economic ecosystem.

The addition of the Innovation Campus and expansion in Blacksburg are designed to double the tech-talent pipeline in the state and diversify the innovation economy. The Innovation Campus will be a global center of technology excellence and talent production, support graduate education, attract top-tier faculty, spark research and partnerships, and ignite the region's innovation economy. Virginia Tech will be positioned to advance diversity and inclusion goals, enrich the experience of students in all locations, and prepare graduates for today's global and diverse workplace (see pages 8-13 of Appendix E for more discussion on the Virginia Tech Innovation Campus).

Commonwealth Cyber Initiative

The Commonwealth Cyber Initiative is a highly-connected network that engages institutions of higher education, industry, and government, along with non-governmental and economic development organizations, in a commonwealth-wide ecosystem of innovation excellence in cyberphysical systems, with an emphasis on trust and security. The Commonwealth Cyber Initiative will ensure Virginia is recognized as a global leader in secure cyberphysical systems and in the digital economy by supporting world-class research at the intersection of data, autonomy, and security; promoting technology commercialization and entrepreneurship; and preparing future generations of innovators and research leaders.

The Commonwealth Cyber Initiative must address today's workforce gap and tomorrow's new economy. To do so, it will build on Virginia's strong base of research excellence, its innovative and diverse higher education system, its vibrant ecosystem of venture capital investment and high-growth firms, and the unparalleled density of cybersecurity talent. The Commonwealth Cyber Initiative will develop new programs and promote, amplify, align, and grow existing efforts across Virginia. Efforts will include building a research alliance, supporting curriculum alignment for more seamless credit transfers across the commonwealth and cultivating holistic relationships with industry and government partners to support research, education, and experiential learning across the commonwealth. The Commonwealth Cyber Initiative will be measured by well-defined indicators like faculty participation, scholarly publications, competitive research expenditures, student employment in cyber fields in Virginia industry, patent licensing, and venture capital invested in spin-outs (see pages 6-9 of Appendix C for more discussion on the Commonwealth Cyber Initiative).

Presence in Roanoke

The Virginia Tech Carilion (VTC) partnership and presence in Roanoke, including the Virginia Tech Carilion School of Medicine (VTCSOM) and Fralin Biomedical Research Institute at Virginia Tech Carilion (previously known as the Virginia Tech Carilion Research Institute or VTCRI), combines the university's ongoing excellence in academic health science and comprehensive biomedical research capacity to respond to complex problems of the commonwealth and the world.

Originally established as a complementary private and public collaboration between an independent medical school, the Carilion Clinic, and Virginia Tech Carilion Research Institute, in 2016 the medical school became Virginia Tech's ninth college. The Fralin Biomedical Research Institute at VTC houses the efforts of almost thirty research teams in biological, behavioral, computational, and engineering disciplines working towards health and disease challenges and has generated nearly \$100 million in extramural research grant funding. VTC incorporates traditionally siloed disciplines of research and practice within living-learning educational environments, enabling students to put their research into practice and streamline their capacity for bench-to-bedside healthcare. Bridging science research and clinical expertise, the Virginia Tech Carilion partnership is positioned to activate biomedical research and care across the region and beyond (see pages 14-16 of Appendix E for more discussion on Virginia Tech's presence in Roanoke).

Industry Partnerships, Licensing, and Entrepreneurship

As part of the commitment to support industry partnership and start-ups, the university has recently refreshed its approach via an integrated Discovery to Market (D2M) model. Attending to all aspects of industry partnerships, the D2M team works together to nurture partnerships, secure needed investment, and ensure the discoveries made at the university deliver economic and human impact through three complementary centers: LINK – The Center for Advancing Industry Partnerships, LICENSING – The Center for Technology Commercialization, and LAUNCH – The Center for New Ventures (www.vt.edu/link). These centers provide support for a continuum of engagement opportunities including research collaborations, experiential learning projects, technology licensing, technology transfer, and new ventures.

Discovery to Market conveys a wide range of benefits to the university. A thriving partnership and innovation ecosystem supports growth of the research enterprise, philanthropic goals, faculty recruitment and retention, translation and impact, and an entrepreneurial and collaborative culture. Reputation is enhanced and risks are lessened as Virginia Tech honors its commitment to its research mission, as well as federal and state obligations associated with receipt of private and public sector funding.

Agriculture and Natural Resources Initiative

The Agriculture and Natural Resources Initiative supports and partners with agriculture and natural resource industries by promoting translational research, experiential learning, and technological advancements to drive private industry, economic growth, and benefit the commonwealth and the world. Virginia Tech is uniquely positioned to support the Agriculture and Natural Resources Initiative through its 11 Agricultural Research and Extension Centers (ARECs), 107 local Virginia Cooperative Extension offices across Virginia, and the university's significant presence in Blacksburg, Roanoke, and the greater Washington, D.C., area.

The Agriculture and Natural Resources Initiative recognizes that small-businesses, corporate partners, and commodity industry partners need continued innovation and discovery to build upon the commonwealth's leadership in agriculture and natural resource production. The newly named SmartFarm Innovation Network leverages existing technology centers across Agricultural Research and Extension Centers and campuses to build transdisciplinary research teams positioned to collaborate with nearby Agriculture and Natural Resources Initiative industry partners and develop technologies for sustainability, socio-economics, systems technology, human behavior, and policy challenges. To help address the global need for food production in light of population growth, the Agriculture and Natural Resources Initiative plans to host innovation summits; build a consortium of industry partners; provide experiential learning opportunities; engage faculty from across campus; facilitate acceleration of technological innovations; and complement many university transdisciplinary initiatives.

Rural Virginia Initiative

The Rural Virginia Initiative convenes an ongoing working group of partners from across public, private and non-profit sectors to develop a strategic framework for investing in shared prosperity across Virginia. The goal is to craft specific policy solutions within the local context of the rural communities themselves that are both immediately actionable and opportunities for future implementation.

The Rural Virginia Initiative's recommendation for rural Virginia's future, compiled by higher education institutions including the University of Virginia, Virginia State University, and Virginia Tech, was presented in fall 2018 to the Virginia Governor and Chairmen of the Senate Finance and House Appropriations Committees. This recommendation highlights extensive research into the existing contrasts of Virginia's urban and rural economies and associated disparities in community well-being, and examines what steps can be taken to close gaps where needed as well as benefit from such diverse features of the commonwealth.

As a result, initial areas of focus include innovation and job creation; education and talent; civic innovation and leadership development; agriculture and place-based entrepreneurship; and healthcare, early childhood, and community well-being. As the Rural Virginia Initiative develops, it will continue to evaluate coinciding rural Virginia initiatives across other higher education institutions as well as develop and build upon networks of influence throughout the commonwealth.

STRATEGIC PRIORITY 2: ELEVATE THE UT PROSIM (THAT I MAY SERVE) DIFFERENCE

Aspirational Vision:

The *Ut Prosim* (That I May Serve) Difference, a foundational differentiator for Virginia Tech, recognizes the integral connection with Virginia Tech's land-grant responsibility of access and opportunity and its mission of service to humanity. Consistent with InclusiveVT, the institutional and individual commitment to *Ut Prosim* (That I May Serve) in the spirit of community, diversity, and excellence, Virginia Tech will build and support communities of discovery where global citizens engage with different ideas, beliefs, perspectives, experiences, identities, backgrounds, and cultures.

Goal 1: Increase representational diversity

Goal 2: Increase cultural competency

Goal 3: Address critical societal issues impacting humanity and equity

INITIAL MILESTONES:

- Achieve 25% representation of underrepresented minority students in the entering class (freshmen and transfers) by 2022
- Achieve 40% representation of underrepresented minority or underserved students (Pell-eligible, first generation, and veterans) in the entering class (freshmen and transfers) by 2022
- Increase the total enrollment in the Corps of Cadets to 1400 by 2022
- Achieve 20% representation of underrepresented minority graduate and minority professional students by 2024
- Increase underrepresented minority faculty to 15% (which is equal to or greater than the mean Research (R1) Public Land-Grant Universities) by 2024
- Increase female faculty representation to 50% (which is equal to or greater than the mean Research (R1) Public Land-Grant Universities) by 2024
- Increase underrepresented minority faculty new hires to 25% annually by 2022
- Increase female faculty new hires to 50% annually by 2022
- Ensure 100% of graduate programs of study include a required cultural competency component by
 2022
- Increase undergraduate students graduating with at least two Pathways courses that satisfy the Critical Analysis of Equity and Identity in the United States core concept to 25% by 2024
- Increase undergraduate students graduating with at least two Pathways courses that satisfy the
 Intercultural and Global Awareness integrative concept to 25% by 2024
- Increase representation of underrepresented minority staff and administrative and professional faculty to 25% by 2024

PROPOSED ACTION STEPS:

- Optimize strategies to increase the representational diversity of underrepresented minority students and underserved students through recruitment, retention, and success
- Review financial aid, and funding for co-curricular and experiential learning experiences of underrepresented minority and underserved students
- Enhance and expand programs such as the Target of Talent, the Future Faculty Development Program, and the Faculty Community of Scholars Program
- Develop strategies to increase enrollment in undergraduate courses and co-curricular opportunities that include diversity and inclusion competencies and capacities
- Ensure integration of Graduate School diversity education requirement
- Explore strategies to increase the development and incorporation of inclusive pedagogy practices into academic courses
- Review Campus Climate Survey response results and develop approaches to address trends
- Develop and build upon current efforts for global engagement to create positive change in a world without boundaries
- Develop international outreach and engagement strategies for increasing diversity of international students and faculty
- Continue oversight of college and administrative unit-level diversity strategic plans
- Develop a process for tracking engagement in social issues in curricular and co-curricular programming
- Determine appropriate metrics for employee veterans and persons with disabilities

CURRENT INITIATIVES:

Beyond Boundaries Scholarship Program

Virginia Tech values access and affordability for students. The Beyond Boundaries Scholarship program was announced in 2016 in order to put the university's access and affordability values into practice. Beyond Boundaries advances the university's goals related to Project 2022 to increase the number of underrepresented minority students and underserved students at Virginia Tech. The program reduces unmet need for underrepresented students and underserved students through qualifying gifts, each of which are matched by the university. The scholarship program also helps to advance and attract talented students from within the commonwealth and across the country.

InclusiveVT

<u>InclusiveVT</u> (www.inclusive.vt.edu) is the institutional and individual commitment to *Ut Prosim* (That I May Serve) in the spirit of community, diversity, and excellence. The InclusiveVT Framework (See Figure 2) has been developed to help advance four institutional goals:

- Institutionalizing structures to promote sustainable transformation;
- Increasing faculty, staff, and student diversity;
- Ensuring a welcoming, affirming, safe, and accessible campus climate; and
- Advancing equity through the academic mission

A decentralized, but centrally coordinated, commitment to advancing equity and diversity is managed through the Office of Inclusion and Diversity, the President's InclusiveVT Executive Council, unitlevel Diversity Committees, Diversity Directors, the InclusiveVT Faculty Diversity Committee, caucuses and alliances, and the Commission on Equal Opportunity and Diversity. The Office of Inclusion and Diversity leads, manages, and coordinates the institution's diversity and inclusion portfolio. Approximately 100 InclusiveVT representatives promote inclusive climates, share information and resources, and highlight events with their units, working collaboratively with unit-level Diversity Directors. The Diversity Summit, which explores critical objectives and new strategic initiatives, and the Advancing Diversity Program, which showcases successful initiatives and offers professional development opportunities are annual programs that support InclusiveVT. Additionally, unit-level communitybuilding programming occurs during InclusiveVT Week to welcome new employees and students, and Principles of Community Week promotes inclusion and reaffirms Virginia Tech's commitment to the Principles of Community (www.inclusive.vt.edu/Initiatives/vtpoc0).

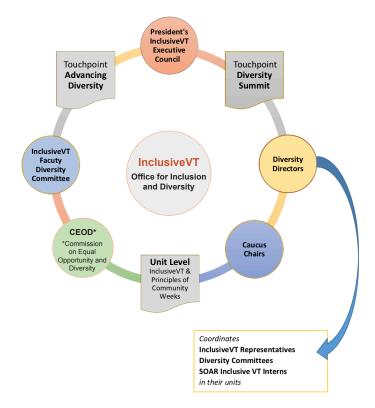


Figure 2: InclusiveVT Framework

As Virginia Tech moves beyond boundaries to advance diverse communities of learning equipped for a 21st century education, it will be critical for each college, unit, and department to hold themselves accountable for their diversity strategic plans. The unit plans are essential to achieving the university's goals of an increasingly diverse faculty, staff, and student population, and preparing students to address issues facing a global and interconnected world. Each college and unit has a plan based on the template in Appendix C (see pages 10-14). In addition, the new Partnership for an Incentive Based Budget model incorporates diversity metrics as it asks colleges and units to formulate multi-year goals with an emphasis on national benchmarking (see pages 22-26 of Appendix B for more information on the Partnership for an Incentive Based Budget Model).

Faculty Diversity

Since 2017, Virginia Tech has accelerated its faculty diversity efforts. Through the leadership of a new position, Director of Faculty Diversity, the Office for Inclusion and Diversity coordinates college and campus-wide efforts in partnerships with the InclusiveVT Faculty Diversity Committee and Diversity Advocates on search committees. In addition, all search committee members must complete an unconscious bias online course.

The Future Faculty Development Program is a two-day program open to doctoral candidates and post-doctoral scholars from underrepresented backgrounds interested in a career in academia. Each year, approximately 40 selected participants are matched to Virginia Tech academic departments and introduced to university facilities, faculty peers, and key aspects of a faculty position. Participants are selected based on academic and research potential as well as their alignment to Virginia Tech's institutional commitment to service and diversity.

Inviting prospective faculty to Virginia Tech builds professional relationships, expands peer networks, and maintains institutional visibility as a premier career destination. Since the program's inception in 2011, a number of participants have accepted faculty positions at Virginia Tech in response to university wide growth in student enrollment, research initiatives, and community impact.

Target of Talent

Virginia Tech's faculty diversity commitment follows two guiding principles: 1) the imperative of faculty identifying talented scholars through different strategies, recruiting candidates, and mentoring for success, and 2) an expectation of a shared commitment between the campus administration, departments, and colleges as a partnership model to advance faculty diversity. The Target of Talent program provides an incentive for hiring strategic priority candidates into academic faculty positions.

Funding for ten permanent recurring faculty lines was budgeted in support of this program in the 2018 fiscal year, following successful strategic priority candidate recruitments by colleges the previous year. The program was again funded in fiscal year 2019 to reward successful strategic priority recruitments of up to ten faculty in fiscal year 2018. To date, all 20 of the available Target of Talent lines for the first and second rounds have been awarded to colleges with participation in the program benefiting eight of the Blacksburg campus colleges.

As Virginia Tech pledges to grow the underrepresented student body and underserved student body, it will need employees that mirror and reflect the student population. Virginia Tech must ensure that students have the opportunity to learn from faculty and staff that are intellectually and culturally diverse.

Native American Engagement

Since 2016, Virginia Tech has been very active in engaging the eleven federally recognized tribal communities. It hosted the Native American Tribal Summit with all the tribal nations, and as a follow up to the summit, has developed tribal-focused engagement strategies. Engagement has focused on attending tribal nation powwows, but also hosting an annual pow-wow at Virginia Tech. In 2019, Virginia Tech hosted its third annual pow-wow. Specific engagement efforts include student recruitment, student retention, and tribal leadership partnerships. In addition, in 2019, Virginia Tech approved a resolution to recognize Indigenous Peoples' Day on the day that has been historically recognized as Columbus Day. These efforts are complemented by the programming in the Native American and Indigenous Community Center.

Inclusion and Diversity Resolution for Graduate Education

Seeking to build and support communities of diverse cultures and ideas, Virginia Tech ensures students learn, experience, and value inclusion and diversity. As a result, university leadership approved the 2018 resolution mandating all graduate students participate in an inclusion and diversity education component. This education will be iterative and adaptable across each academic unit and will complement the needs of each discipline. Graduate students will meet the inclusion and diversity educational requirement via workshops, training modules, lectures and discourse, and/or existing courses documented in students' Plans of Study, approved by unit leadership, and verified by the Graduate School. Implementation of this resolution will begin in fall 2019 with 100 percent participation across the all graduate programs no later than spring 2022.

Student Diversity

In 2017, Project 2022 was launched to encourage the university to accelerate its diversity and inclusion goals. Project 2022 set an ambitious goal that 25% of the entering class (freshmen and transfer) should be underrepresented minorities or underserved (first generation, Pell-eligible, and veterans). To advance this goal, the Office for Inclusion and Diversity has coordinated, sponsored, supported, and collaborated with several programs and campus units. In addition to the Hispanic College Institute which has been in place since 2014 with almost 100 students, the Black College Institute attracted 50 students in its first year in 2017 over 150 in 2018, and 300 in 2019. These institutes are residential summer pre-college programs for rising high school juniors and seniors. The Office for Inclusion and Diversity partners with the Vice Provost for Enrollment Management and the College Access Collaborative (CAC) to support student recruitment, outreach, and engagement efforts. The College Access Collaborative is an organizational unit dedicated to increasing college access, which focuses on building collaborative partnerships throughout the commonwealth.

Another distinctive outreach, recruitment, and engagement office is the Center for the Enhancement of Engineering Diversity (CEED) (https://eng.vt.edu/ceed.html). Since 1992, the Center for the Enhancement of Engineering Diversity has provided encouragement and support to engineering students, with a focus on the underrepresented population. The Center for the Enhancement of Engineering Diversity sponsors several summer camps and outreach initiatives for women and underrepresented students.

As a parallel effort with recruitment, the campus supports several programs and units related to retention. The Black Cultural Center was created in 1991, and for some time, the Black Cultural Center and Multicultural Center were the only centers available for underrepresented minority students. In 2016, the LGBTQ+ Resource Center, El Centro, the Native American and Indigenous Center, and the Asian and Asian American Engagement Center were added. The centers offer several programs for students, develop programming during cultural heritage months, and sponsor cultural celebrations during graduation week.

In 2018, the <u>Student Opportunity and Achievement Resources program (SOAR)</u> (www.inclusive.vt.edu/SOAR) program was created to work with entities across the university to help students who are underrepresented and underserved. The program works with University Advising and the Student Success Center to enhance outreach and support for underrepresented minority students. The Student Success Center offers tutoring and mentoring to students across campus.

Another related mentoring program is the Life Sciences Mentoring Program. The program supports underrepresented minority, underserved, and female students majoring in the life sciences with a peer-to-peer mentoring program partnering offered with the College of Agriculture and Life Sciences, College of Science, and College of Natural Resources and Environment. This program offers a research component to explore performance in math, chemistry, and biology.

Finally, to ensure a welcoming, affirming, safe, and accessible campus climate, all incoming students are required to complete DiversityEdu, an online course on InclusiveVT and the Principles of Community. This course, along with other pre-enrollment online courses, has been required of enrolled undergraduate and graduate students since 2017.

Advancing the Academic Mission through Inclusion and Diversity

To advance the academic mission through inclusion and diversity, a transdisciplinary community of Equity and Social Disparity in the Human Condition was developed. This research and learning community cuts across other transdisciplinary communities to advance issues impacting the human condition. The community was instrumental in leading the approval of a new Pathways General Education core concept of Critical Analysis of Equity and Social Disparity in the United States. Students are required to take at least one class in this area during their time enrolled at Virginia Tech.

In addition to curricular efforts, there are also co-curricular programming. The Advancing the Human Condition Symposium, held since 2017, engages scholars, academics, and practitioners in transdisciplinary inquiry around the critical questions of our age, with a primary emphasis on equity as the driving force of discussions. Other co-curricular programming includes the Faculty Women of Color in the Academy conference (hosted at Virginia Tech since 2017), in order to offer women of color faculty, university administrators, post-doctoral fellows, graduate students and undergraduates a unique educational and professional opportunity to network, engage, and learn with peers from around the country. Each year, the conference attracts over 350 attendees.

STRATEGIC PRIORITY 3: BE A DESTINATION FOR TALENT

Aspirational Vision:

Virginia Tech will attract bold and dynamic faculty, staff, and students to a diverse and inclusive community to be a force for positive change. Virginia Tech will support the well-being and quality of life of students, staff, and faculty. Alumni and local communities will recognize Virginia Tech as a lifelong learning destination. Virginia Tech will invest, empower, support, and value a workforce that will champion our vision for the future.

- Goal 1: Attract, retain, and develop the talents of faculty and staff
- Goal 2: Attract, retain, and graduate students prepared to serve a global community
- Goal 3: Support lifelong engagement and learning for alumni and local communities

INITIAL MILESTONES:

- Achieve progress in competitive faculty salaries towards 50th percentile of top 20 Research (R1) Public Land-Grant Universities by 2024
- Achieve progress in competitive administrative and professional and staff salaries towards the 50th percentile of relevant market range by 2024
- Increase the four-year graduation rates for all undergraduate (entering freshmen) students to 70%
- Increase the three-year graduation rates for all undergraduate transfer students to 75%
- Reduce the average student loan debt per graduating senior to \$25k by 2024
- Increase faculty and staff satisfaction with career advancement opportunities to at least 75% as reported in Employee Climate Survey by 2022
- Increase faculty and staff satisfaction with work-life balance to at least 75% as reported in the Employee Climate Survey by 2022
- Increase students participating in Hokie Mentorship Connect Program to 25% by 2022
- Increase on-campus students living in Living Learning Programs to 67% by 2024

PROPOSED ACTION STEPS:

- Identify funding opportunities for new and existing endowed professorships
- Review student-to-faculty ratio
- Develop staff recruitment and retention programs
- Increase access and affordability for first-generation and low-income students
- Improve the educational return on investment for students by evaluating student debt at the college level as compared to salaries after graduation
- Enhance comprehensive professional development and professional opportunities for academic professionals, for staff, and teaching and research faculty
- Develop programming to promote well-being for faculty and staff
- Identify strategies and develop partnerships to offer extramural and institutional funding for graduate students
- Develop a process to support alumni engagement and lifelong learning
- Enhance and expand curricular and co-curricular programs and student services that support the social, financial, community, and physical well-being of students
- Increase the number of graduates in high-demand, transdisciplinary areas
- Increase percentage of new graduates employed or continuing education

CURRENT INITIATIVES:

Human Resources Transformation

As Virginia Tech expands in Blacksburg, advances the Virginia Tech Carilion partnership and presence in Roanoke, and significantly increases its presence in the greater Washington, D.C., area at the Innovation Campus, the Division of Human Resources must transform operations to attract and retain needed talent. The Division of Human Resources actively works to deploy and enable proactive recruitment expertise through upgraded technology and investment in resources, targeted professional development, and positive work-climate through wellness and employee relations. Operational excellence throughout the division such as readily available resources, improved web presence and information, service teams, improved tools and processes, and a culture of process improvement will underscore a commitment to transformation.

The Division of Human Resources has already achieved significant progress towards developing a new work-place culture. In mid-2017, new senior management for human resources established three division areas: administrative, strategic, and consultative, and implemented a new division mission and vision. A newly hired Vice President for Human Resources has re-established governance within the division. Several goals include implementing a new recruitment and onboarding system in 2019 and clarifying compensation priorities to build a work culture at Virginia Tech prepared to serve each other and the community.

University Climate Survey

Virginia Tech is committed to creating and supporting a climate that fosters inclusion and diversity and allows all students and employees to be productive and engaged members of our campus communities. To understand progress toward these goals, a university-wide climate survey was administered during the 2018-2019 academic year. Feedback from the survey helps the university to understand the perceptions of employees and students in relation to diversity, inclusion, leadership, work and learning environment, job satisfaction, and the student experience. Feedback provides a better understanding of the campus experience and enables the university to develop strategies and make informed decisions that inspire positive change in the campus climate over time.

Faculty and Staff Compensation

Inspired by ongoing initiatives to enhance human resources processes, the Division of Human Resources continues to prioritize suitable compensation for Virginia Tech faculty and staff as well as respond to recommendations elevated by such university groups as Faculty and Staff Senates. One such example includes the university's July 2019 increase of minimum starting pay for full-time benefits-eligible staff as well as financial supplements to offset the cost of childcare and other work-related expenses for employees making a certain salary to help offset expenses. These efforts, in addition to ongoing review of faculty salaries, will help bring university salaries closer to market, increase the university's competitiveness, and help Virginia Tech be a destination for talent.

Enhanced Admissions

Led by the Office for Enrollment Management, the undergraduate application process underwent an extensive evaluation, review, and refinement in the 2019-2020 academic year. The enhanced admissions process seeks to eliminate barriers and improve access for students, particularly those from underserved, first-generation, or low-income backgrounds. Using the Coalition for Access, Affordability, and Success model, Virginia Tech's admissions process utilizes readjusted decision timelines and automated application fee waivers for new types of qualifying applicants. Driven by the university's land-grant identity to serve the needs of the commonwealth, Virginia Tech is the first Virginia university to accept self-reported transcripts in the application process to improve processing time and decrease the financial burden of college applications.

The enhanced application process generated immediate success as demonstrated by an increase in applications. These gains advance Virginia Tech's commitment to building student talent and reimagining the boundaries of higher education admissions. The refined application process includes opportunities for prospective students to share experiences in leadership, service, and integrity, resulting in a more holistic, comprehensive application beyond a successful academic record. As a result, the application process ensures Virginia Tech attracts prospective students most aligned with our mission for knowledge, discovery, and creativity.

Alumni Engagement

Alumni play a vital role in achieving our Beyond Boundaries vision through their continued relationship with Virginia Tech. As we work towards developing living-learning communities of positive impact throughout the world, we rely on an extensive network of alumni who can share experiential learning opportunities, connect future employers, and develop industry partnerships with the university. To strengthen these alumni networks, Alumni Relations continues to encourage alumni ambassador opportunities, alumni mentorship with current students, and alumni participation in local alumni chapters. Virginia Tech will be a resource for alumni who seek lifelong learning opportunities to energize their dedication to service and ultimately implement that energy within their communities beyond Virginia Tech. We recognize the power in a strong alumni network and witness the strengthening of that network during events such as the recently reimagined Reunion Weekend that encourages alumni from all classes to convene and celebrate their Virginia Tech experiences. Continued efforts towards building and sustaining opportunities for alumni to connect with the university preserves and amplifies the bonds of the Hokie Nation. The Hokie Mentoring Connect Program will provide a core point of contact for alumni and students to connect.

Living-Learning Communities

Living-learning communities embody Virginia Tech's dedication to offering VT-shaped, flexible, and personalized education for all students. These communities offer students transdisciplinary engagement across their academic and personal lives and promote broad interaction with peers.

STRATEGIC PRIORITY 4: ENSURE INSTITUTIONAL EXCELLENCE

Aspirational Vision:

Virginia Tech will, through continuous strategic planning, create opportunities to solicit and explore innovative ideas, inform resource allocation, and engage the university's system of shared governance. Virginia Tech will also optimize efficiency and effectiveness of administrative functions to ensure alignment of personnel, physical campus, and fiscal resources and processes in support of strategic goals.

Goal 1: Continue to develop the physical campus and technology infrastructure

Goal 2: Develop comprehensive and transparent budget and financial models with diverse and sustainable revenue sources

Goal 3: Develop and launch an adaptive, inclusive process for continuous strategic planning

INITIAL MILESTONES:

- Achieve 100% completion of college and unit-level strategic plans by May 2020
- Achieve maintenance reserve funding in the range of 1- 1.5% of facility values for auxiliaries
- Maintain Debt Rating in the AA or Aa Range
- Maintain =or<5% University debt ratio
- Increase the University's unrestricted net assets by \$20 million annually by 2024
- Achieve an increase of at least 10% in total SWaM expenditures for each of the SWaM categories annually by FY22
- Increase the endowment to \$1.6B by FY22
- Increase alumni giving to 22% by FY22
- Increase funds raised annually to \$175 million by FY23

PROPOSED ACTION STEPS:

- Provide, enhance, and maintain quality research, living, and learning spaces
- Ensure safety and security of the campus
- Implement universal design and accessibility of facilities
- Continue to improve energy efficiency and sustainable use of resources
- Develop consistent technology, universal design principles, and connectivity across locations
- Advance and align financial management, resource management, and transparent budget models
- Implement best-in-class customer service in all aspects of university operations
- Develop and support unit-level strategic plans and related initiatives
- Develop a process to identify and incubate new innovative ideas
- Facilitate decision-making transparency and efficiency throughout the institution
- Implement new workflows that increase efficiency and effectiveness of university policies and procedures
- Continue to grow the endowment held and managed by Virginia Tech Foundation
- Continue to grow alumni giving participation and annual fundraising

CURRENT INITIATIVES:

Partnership for an Incentive-Based Budget (PIBB) Model

Beyond Boundaries imagined a university with greater financial resilience, funded by a diverse resource base and supported by budget models that enable adaptability and innovation in an increasingly dynamic academic financial landscape. As the main funding model for Virginia Tech's academic programs, the Partnership for an Incentive Based Budget model is strategic, inclusive, predictable, and responsive; designed to ensure resources are allocated in a manner that supports the university's mission and vision.

The Office of the Executive Vice President and Provost continues to work with degree-granting colleges to develop a model that sufficiently resources the academic enterprise, while incenting strategic activities. To accomplish this, the Partnership for an Incentive Based Budget model has been developed to reflect a broader array of outcomes and activities that are expected from a comprehensive university, with emphases on incentivizing growth in revenue generating activities, faculty success, student success, and administrative effectiveness (among other activities). The goal-based nature of the Partnership for an Incentive Based Budget model and the intentional connections to university strategic priorities differentiates it from the pure revenue-sharing budget models currently being established at many peer institutions (see Appendix B for more information on the Partnership for an Incentive-Based Budget model).

Master Plan Development

Preparing Virginia Tech for the next generation of higher education requires appropriate capacity in facilities and infrastructure. Inspired by Beyond Boundaries, the entire university community contributed to a multiphased Campus Master Plan approved by the Board of Visitors in November 2018. Aligned with President Sands' Beyond Boundaries charge, the Campus Master Plan relied on six core drivers: the VT experience, sense of place, connections, growth, access for all, and sustainability. These drivers shape the Campus Master Plan's vision for living-learning communities anchored by flexible learning spaces; continued respect and emphasis for Virginia Tech's tradition and distinct character; cohesion across all Virginia Tech locations as the university expands to scale; spaces designed for all members of the community; and policy and practice in environmental awareness.

Climate Action Commitment

Approved by the Board of Visitors on June 1, 2009, the Virginia Tech Climate Action Commitment envisions Virginia Tech as a model community for a sustainable society. The Virginia Tech Climate Action Commitment affirms that Virginia Tech will be a leader in campus sustainability and outlines several goals and milestones for improving sustainability. Areas of focus include reducing emissions, improving sustainability of the built environment, minimizing waste, and improving electricity, heating, and transportation efficiency. Virginia Tech engages and involves the university community in these efforts through multiple activities including the development and implementation of sustainability-related academic programs and innovative strategies for efficient and sustainable use of energy, water, and materials in all university-owned facilities.

Organizational Excellence

As Virginia Tech strives for global distinction, organizational and operational excellence is imperative and foundational to the long-term success of the university's vision and aspirations. Organizational Excellence will expand long-standing excellence in academics and research to include administration and operations. Initial pilot projects launched focus on accessibility, total compensation, and administrative and operations transformation. Organizational Excellence will be guided by a culture of service excellence that values continuous improvement, responsible stewardship of resources (financial, physical, technological, and human), efficiency and effectiveness, transparency, real change, and program assessment.

Traditional organizational models and departmental silos will move towards collaboration and high performing work teams (representing multiple units), seeking university-wide partnerships and valuing diversity of thoughts. Duplication of administrative programs and services will be identified and alternatives for coordinated services and cost savings will be implemented, reducing bureaucracy and maximizing flexibility through governance, policies, processes, and systems.

Technological advancements will create opportunities to provide 24/7 access and on-demand services, enhancing community engagement. Constraints around physical locations will be minimized. Investments in infrastructure, at all campus locations, will ensure facilities, technology, and services provide inclusive and accessible experiences and support academic and research priorities. While respecting the university's shared governance system, decentralized operating environment, and geographic locations, Virginia Tech will strive for excellence throughout its organization and operations.

Infrastructure Technology

The <u>Division of Information Technology</u> (www.it.vt.edu) will undertake important planning and deployment actions to meet connectivity needs across Virginia Tech locations including the Innovation Campus and other locations in the greater Washington, D.C., area and Roanoke. This process will include developing and supporting a vision for distance learning, as well as lifelong learning and living-learning programs.

To further improve universal accessibility to technological interfaces, the Division of Information Technology plans to advance accessibility of information services, striving for a common experience for all Virginia Tech users regardless of location. This effort includes rearchitecting wide area network connections between key university locations, national networks, and public cloud and other service providers; deploying common services and technologies for device connectivity and classrooms; providing ease of access to Information Technology support through online and on-site resources; ensuring effective and timely identity and access management to appropriate university resources; and continuing to explore new technologies that improve services for the university community.

In collaboration with the Office of the Executive Vice President and Provost, the Division of Information Technology will support planning and operational effectiveness through data governance, improve access to disparate data sources through a "data lake" approach as an addition to the data warehouse, provide support for data analytics tools, and enable a community of practice.

Continuous Planning

A core component of Beyond Boundaries seeks to grow a culture of "continuous planning" at Virginia Tech. Continuous strategic planning involves monitoring goals, metrics, and milestones for existing priorities; identifying, developing, and advancing new strategic priorities; and ensuring a culture of self-evaluation, innovation, agility, and adaptability. Continuous planning is an institutional ability to set priorities and goals; develop paths to achieving milestones; create opportunities to assess progress using robust data; flexibly invest in priorities and goals; and adapt or revise approaches, priorities, and goals if needed.

Strategies are guides for organizations, visions with narratives, and templates for resource allocation decisions. In short, they provide guidance for where the organization wants to be to realize priorities and goals. Large institutions must connect what the strategy is with how the organization can implement the strategy in the most effective and efficacious way that allows for an ongoing and transparent dialogue.

On-going challenges and opportunities include university governance; resource management and prioritization; curriculum innovation and implementation; research collaboration; and initiatives that cross jurisdictions, campus locations, or disciplinary boundaries. The ability to determine budgets, innovate practices, and quickly implement and adapt through strategic planning are affected by long standing, often intermittently developed practices.

The Virginia Tech Difference: Advancing Beyond Boundaries identifies values and pursuits that guide and inform Virginia Tech's strategic direction, which include the concept of continuous planning. Through continuous planning, Virginia Tech will create and support the infrastructure to connect initiatives to strategic priorities; to measure, assess and adapt so that priorities can be evaluated, achieved, or adjusted; and pursue new priorities altogether.

An opportunity exists for incremental and pilot efforts to maximize opportunities for institutional experimentation and learning while also minimizing the resources that would be required for comprehensive implementation. The smaller initiative approach allows for learning in an embedded context, and the opportunity to scale. Most likely, the smaller scale might foster learning across boundaries within the university as one unit works with another, learns, and practices it elsewhere.

CONCLUSION

As Virginia Tech builds upon this strategic planning framework and develops a culture of continuous planning across the university, this framework will be a university-level guide for colleges, institutes, offices, departments, and units across campus as they develop their respective strategies and plans to advance institutional priorities.

The Office for Strategic Affairs will guide the transition from planning to implementation through a collaborative, partnership-driven continuous planning process to help units develop their strategic plans. Immediate next steps for the continuous planning process include working with administrative and academic units to develop unit-level strategic plans by spring 2020.

In addition, feasibility studies will inform prioritization, implementation, and the development of processes to identify and incubate new ideas and increase decision-making transparency and efficiency throughout the institution. Key university leaders will be identified to champion specific initiatives, and a collaborative, partnership-driven continuous planning process will help Virginia Tech achieve milestones and advance its Beyond Boundaries vision.

Together, we will advance the Virginia Tech Difference.

APPENDIX LIST

Appendix A: Strategic Planning Data Analysis

Appendix B: Metrics, Rankings, and Partnership for an Incentive-Based Budget

Appendix C: Research Strategic Planning, Commonwealth Cyber Initiative, and Diversity Strategic Planning

Appendix D: Experiential Learning

Appendix E: Presence in the Greater Washington, D.C., Area and Roanoke