

National Capital Region 2012–2018 Strategic Plan

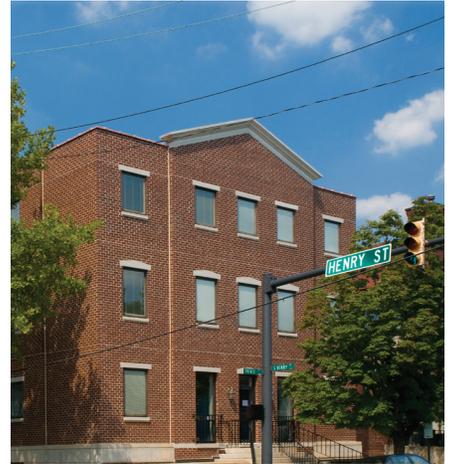




901 PRINCE STREET / ALEXANDRIA



1001 PRINCE STREET / ALEXANDRIA



1021 PRINCE STREET / ALEXANDRIA



900 NORTH GLEBE ROAD / ARLINGTON



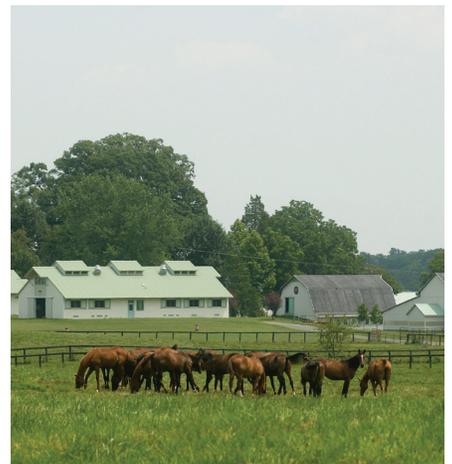
7054 HAYCOCK ROAD / FALLS CHURCH



17690 OLD WATERFORD ROAD / LEESBURG



9408 PRINCE WILLIAM STREET / MANASSAS



5527 SULLIVANS MILL ROAD / MIDDLEBURG

National Capital Region 2012–2018 Strategic Plan

INTRODUCTION

Virginia Tech has created “A Plan for a New Horizon” that will guide the university in the next six years and beyond. The plan is a comprehensive examination of the challenges and opportunities for Virginia Tech caused by “geopolitical and geo-economic transition, an accelerated pace of globalization, and structural shifts caused by technological innovation.” It offers a view of how Virginia Tech should prepare for these challenges and structure our institution to ensure excellence of our enterprise well beyond 2018.

The strategic plan of the National Capital Region responds to the challenges and opportunities presented in Virginia Tech’s Plan for a New Horizon. It is a plan that builds on the history of Virginia Tech in the National Capital Region and the strengths of all of the institutions represented within the region, and promotes innovative and efficient use of resources to ensure that the National Capital Region can support all three pillars of our institution: learning, discovery, and engagement.

VIRGINIA TECH NATIONAL CAPITAL REGION OVERVIEW

Virginia Tech has had operations in the National Capital Region (NCR) for over 60 years. Beginning with the gift of a 420-acre farm for agriculture research from the late Paul Mellon in 1949, the operations in NCR have expanded to six different locations within the greater Washington, DC area and include 45 graduate degree and certificate programs; workshops and customized educational programs; and a number of nationally recognized research centers.

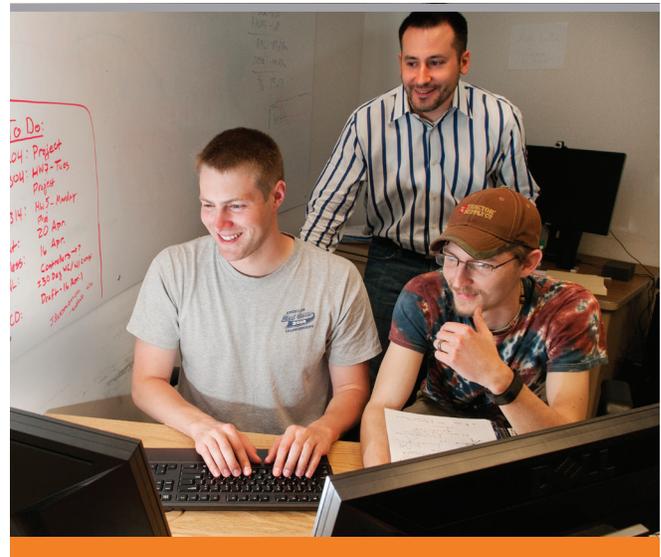
Operations in NCR have expanded to six different locations. What began as primarily a graduate education and extension program has now grown to support all aspects of the university mission.

What began as primarily a graduate education and extension program has now grown to support all aspects of the university mission. The learning mission is supported through the graduate and executive programs taught within the region and through distance learning technologies; the discovery mission is supported by a growing portfolio of externally funded and university funded research and strategic collaborations that benefit all aspects of the university; and the outreach mission is supported by the visibility that NCR brings to Virginia Tech in a region of Virginia that is becoming increasingly important as a hub for political, technological, and cultural change.

The National Capital Region of Virginia Tech is comprised of six separate locations in the greater Washington, DC area. Alexandria is the home to programs in the College of Architecture and Urban Studies (CAUS) including programs in architecture and landscape architecture in the Washington Alexandria Architecture Center, and leading programs in policy, planning, administration, governance, and international affairs housed within the School of Public and International Affairs.

The Northern Virginia Center (NVC) in Falls Church has long been the center of the Virginia Tech graduate programs within the region. The College of Engineering offers M.S. and Ph.D. degree programs in Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, and Industrial Systems Engineering (CEE ranked #9, ECE ranked #27, CS ranked #44 and ISE ranked #3 in the nation by the U.S. News & World Report). The College of Liberal Arts and Human Sciences has a diversity of teaching and research entities located at NVC.

The Science and Technology Studies program (M.S. and Ph.D.), is oriented towards working adults in the policy, government, and non-profit sectors and focuses on the societal, ethical, and policy dimensions of science, technology, and medicine. The School of Education (M.A., Ed.S., Ph.D.) fulfills the mission of the university by preparing educational leaders serving as counselors, school site administrators, and central office leaders while the Adult Learning and Human Resource Development program (M.S., Ph.D.) offers advanced degrees in adult learning in such settings as industry, government, military, health care, and nonprofit organizations. The Marriage and Family Therapy (M.S.) program is designed to prepare students to be competent marriage and family therapists. The Pamplin College of Business at NCR offers the Master of Business Administration (MBA), Executive Master of Business Administration (EMBA), and, jointly with the College of Engineering, the Master of Information Technology (MIT) degree programs serving the needs of a professional student body with superior teaching and high quality applied and theoretical research. These programs are highly ranked nationally by the U.S. News & World Report (MBA ranked #37 and MIT ranked #4) with courses taught by resident full-time faculty who are nationally and internationally recognized for their research and academic achievements.



The Occoquan Water Monitoring Lab within the Civil and Environmental Engineering Department has been in operation for 40 years and is a leading center for the study of water quality. The Equine Medical Center in Leesburg and the Middleburg Agriculture Research and Extension Center are unique programs that continue to serve the extension mission of the university. The newest facility, the Virginia Tech Research Center – Arlington, is an integrated center that houses numerous university academic and research programs in cybersecurity, energy and energy security, medical bioinformatics, and policy informatics.



The workforce around Washington, DC is the best educated in the country; 47% of people in the workforce have bachelor's degrees and 22% have advanced degrees.

THE IMPORTANCE OF THE NATIONAL CAPITAL REGION TO VIRGINIA TECH

The National Capital Region will play a critical role in responding to the challenges cited in A Plan for a New Horizon. Land grant universities located primarily in small communities, such as the Blacksburg campus of Virginia Tech, will face additional challenges introduced by the increasing urbanization of the globe and the increasing concentration of wealth, political influence, and technological innovation in metropolitan regions. The fact that Virginia Tech already has a presence in the NCR that promotes all three primary missions of the institution is a significant competitive advantage compared to many of our peers.

A Plan for a New Horizon cites four Structuring Challenges that must be faced by Virginia Tech to ensure enduring excellence: implications of global interdependence; needs and challenges of a data-driven society; meeting of our research expectations; and organizational efficiency and flexibility. The plan highlights research and innovation, the life of the mind, and The Virginia Tech Experience as the means to respond to these challenges and create a process that delivers on the promise of quality, innovation, and results.

The region surrounding the Washington, DC, metropolitan area – which we call the National Capital Region – will serve as a model for how Virginia Tech meets these challenges in the next six years and beyond. The greater Washington DC metropolitan area has a total population of 6.2 million people, making it the fifth largest metropolitan region in the United States in 2008. In that same year, the National Capital Region was the fourth largest regional economy in the United States with a total regional product of \$454 billion. The region is home to 18 Fortune 500 companies with total revenue over \$300 billion. Total employment within the region is over three million people, and in June of 2012 the average unemployment rate in the greater Washington area was 2.7% below the national average.

The National Capital Region is home to the largest sponsors of research at Virginia Tech. In fiscal year 2012, federal sources accounted for 78% of all research sponsors at Virginia Tech. Two-thirds of all federal research expenditures – approximately \$135m – came from four agencies: National Science Foundation, Department of Defense, Department of Health and Human Services, and Department of Agriculture. All four of these agencies have offices within a 10-mile radius of Virginia Tech locations in Arlington, Alexandria, and Falls Church. The office of one of the largest federal sponsors, the National Science Foundation, is located approximately two blocks from the Virginia Tech Research Center in Arlington, VA.

The Virginia Tech presence in NCR provides national and international visibility for our university. The three major airports in the Washington DC area service over 40 world cities that connect the region to 80% of the world's economy. There are over 500 weekly international flights from Dulles International Airport, Ronald Reagan National Airport, and Baltimore-Washington International Airport; 60% of the U.S. and Canadian economies are within a two-hour flight from the National Capital Region.



The National Capital Region exemplifies the importance of advanced education to the development of a stable workforce. The regional workforce is the best educated in the country, with over 47% of the workforce having a bachelor's degree and 22% having an advanced degree. Moreover, the workforce in the NCR has a strong desire for graduate study and continuing/professional education. This population presents a major opportunity for VT, but also drives significant competition. Over 50 colleges and universities are located within the greater Washington, DC area, including several peer institutions such as the University of Maryland, George Mason University, Georgetown University, and The George Washington University. Universities based in other parts of the country are also setting up operations in the NCR to capitalize on this market.

Virginia Tech must leverage the strengths and core existing competencies of the National Capital Region to grow the university enterprise at all campus locations. This plan focuses on how the NCR can lead the university and impact all aspects of the learning, discovery, and engagement missions of our land-grant institution through innovative educational, research, and outreach programs.

STRATEGIC PLANNING PROCESS

The strategic plan for the National Capital Region began with discussions with a small group of faculty, staff, and administrators in the summer of 2011. With the retirement of Dr. Jim Bohland in January 2012 as Vice President and Executive Director of NCR, Provost Mark McNamee requested that the incoming Vice President, Dr. Donald Leo, chair a strategic planning process with a completion date in Fall 2012.

A committee was formed with representatives of all units that have significant operations within the National Capital Region (*see below*). Each planning committee representative was tasked with being the liaison between his/her organization and the committee, as well as being tasked to ensure that he/she accurately represented the unit head. In this manner the committee was ensured to represent a broad and diverse set of opinions.

PLANNING COMMITTEE

Barbara Allen*

*Director, STS at NVC
Representing: College of Liberal Arts and
Human Sciences*

Rosemary Blieszner*

*Alumni Distinguished Professor, Associate
Dean, Graduate School
Representing: Graduate School*

David Gerrard

*Professor and Department Head, Animal
and Poultry Sciences
Representing: College of Agriculture and
Life Sciences*

Parviz Ghandforoush*

*Managing Director and Professor, NCR
MBA and VT-MIT Program
Representing: College of Business*

Kathleen Hancock*

*Associate Professor, Civil and
Environmental Engineering
Representing: NCR Faculty Association*

Anne Khademian*

*Director, SPIA, Professor, CPAP
Representing: College of Architecture and
Urban Studies*

Donald Leo

*Vice President and Executive Director,
NCRO
Representing: Committee Chair*

Tim Long

*Professor and Associate Dean
Representing: College of Science*

Michael Mortimer

*Assistant Professor, College of Natural
Resources
Representing: College of Natural Resources*

Hazhir Rahmandad*

*Associate Professor, Industrial and Systems
Engineering
Representing: College of Engineering*

Nick Stone*

*Deputy Director, NCRO
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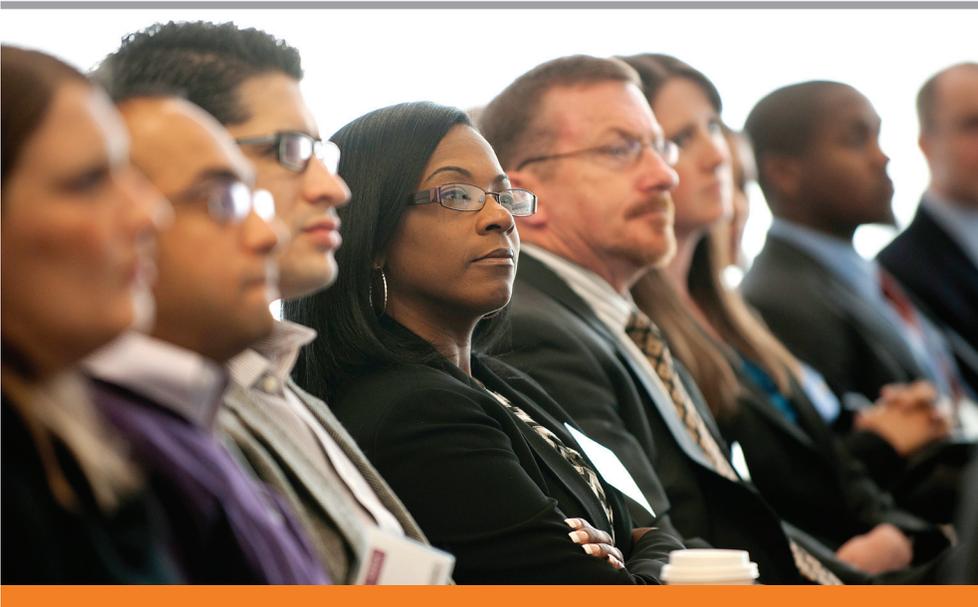
Elizabeth Tranter

*Chief of Staff, Office of the Vice President
for Research
Representing: Office of the Vice President
for Research*

Kenneth Wong*

*Associate Dean of the Graduate School and
Director of the Northern Virginia Center
Representing: Graduate School*

** denotes that the individual contributed significant written content to the planning document.*



The planning process consisted of three major components. The first component was a broad survey of the National Capital Region to assess current opinion from key stakeholders. This survey was supplemented by several focus group discussions held in the NCR. The second component of the process was a synthesis of strategic plans from the stakeholder units in the region. The synthesis process combined the key elements of the unit plans and created a set of preliminary priorities that were considered by the committee. The final component of the process was a committee-wide determination of the strategic priorities for NCR and the preparation and presentation of the final plan to Provost McNamee.

NATIONAL CAPITAL REGION VISION

The National Capital Region of Virginia Tech will leverage the distinctive nature of the student population in the greater Washington DC area into growing and nurturing education programs that meet the needs of the region; utilize the proximity of our operations to partnering organizations to maximize growth of the university enterprise; and link the university's campuses in the Commonwealth to the nation and to the world for the express purpose of being an integral part of the university land-grant heritage.

STRATEGIC PRIORITIES FOR THE NATIONAL CAPITAL REGION

The collective work of the NCR Strategic Planning Committee has resulted in the development of three strategic priorities for the National Capital Region. Each of these strategic priorities has a set of goals and measures that will be used to assess the progress towards achieving our priorities. These priorities, goals, and metrics are summarized in the following sections.

STRATEGIC PRIORITY 1

Continue to provide relevant educational offerings to the diverse and distinctive student population in the National Capital Region and lead the university in the development of innovative graduate, professional, and continuing education programs that meet the needs of the region and the greater university community.

Goal 1.1

Promote the development of region-specific degree and professional development offerings through sustained analysis of student needs and demographic trends.

New degree development must recognize that NCR is positioned differently than the main campus, in that the pace and competitive pressures faced in Northern Virginia and Washington, DC are much different than elsewhere in the Commonwealth. The National Capital



Region features more than a half-dozen large universities, and highly skilled mid-career professionals who are confronted with an embarrassment of riches from the offerings of these institutions. Because DC is not a destination for schools, but a destination for careers, working adults are the primary group of graduate students in the area and they are often not well-served by the larger local universities.

NCR needs to expand its flexibility and its offerings by pursuing further development of cross-disciplinary degrees that tie to the university strategic plan and align with the types of students and career advancing opportunities in the region. Virginia Tech can leverage its own substantial resources, alumni base, and brand identity among potential students to be world-class in a

field because motivated potential learners are already in the DC area. Instead of trying to bring people to the area (as in Blacksburg), NCR attracts them by reputation and advertising to enroll in programs that can help with career advancement.

MEASURES

- One means to assess if the new degree offerings are meeting student needs and demographic trends would be to conduct a survey or exit interview of graduating students. Are students graduating toward full or better employment? Did the program meet their needs? What might be done differently? etc. A similar oral survey or interview of employers who have hired the program's students might also be conducted. Ongoing assessments of both demographic trends and employment opportunities should be conducted at intervals so that programs track with opportunities.

Goal 1.2

Enable a culture of innovation through flexibility, creative use of technologies and learner-centered pedagogies in the National Capital Region to become a showcase for instructional excellence.

Build a process to continuously evaluate and improve distance teaching and other non-traditional classroom instruction. Enhance the quality



of instructional technology in the region in collaboration with organizations from around the university. Leverage the “real-world” laboratory of the multi-jurisdictional, multi-cultural, urban environment of the National Capital Region through partnerships with industry and governments including shared facilities and

technologies; co-location of practitioners, faculty, and students; and strategic programming. (Examples include real-world experiments and laboratories such as studying traffic patterns through integration of data from field sensors and cameras.) Cultivate a strong sense of community for and among graduate students and faculty.

MEASURES

- Generation of annual publicly-accessible, institutional analyses reporting a comparison between distance teaching versus traditional classroom learning outcomes. These self-assessments will include a section

Virginia Tech can leverage its own substantial resources, alumni base, and brand identity among potential students to be world-class in the DC area.

that identifies weaknesses in hardware, software, faculty training, support-staff capabilities, and indicates corrective changes that will be implemented. These self-assessments should be patterned after the ABET continuous improvement philosophy.

- Faculty assessment of adequacy of distance learning infrastructure.
- Documented partnerships with government and industry and the integration of real-world laboratories into the curriculum/degree programs.

Goal 1.3

Develop fair and transparent assessment criteria for graduate programs, particularly new programs. These criteria should be both qualitative and quantitative and widely applicable across the university, recognizing the inherent differences of programs across the VT enterprise.



Meeting the university's strategic goals for graduate student enrollment will require the development of new, innovative graduate programs which capitalize on emerging disciplines and respond to market needs. Although the academic approval path for new graduate degrees is relatively clear, the financial path is much less so. Establishing a clear and straightforward financial template for new graduate programs will serve several purposes. First, it will raise awareness of the regional variability for graduate programs. For example, a significant disparity exists between student costs

vis-à-vis services provided in the National Capital Region. Second, it will lower the barrier for creating graduate programs, because we will not need to expend time and effort creating individual financial plans. Third, if new programs are on a common financial footing, it will be easier for them to work together and combine efforts and resources. Finally, it will incentivize faculty and administrators, because the rewards for successful new programs will be clearly laid out in advance.

MEASURES

- Development of a proposed financial template for new programs. Programs such as the enterprise fund model can be used as a starting point.

STRATEGIC PRIORITY 2

Develop programs in research and innovation that link all Virginia Tech campuses to the nation and to the world.

Goal 2.1

Focus the research enterprise in the National Capital Region by defining core programs that address societal needs, integrate the activities of multiple organizations across the region and throughout the university, and build upon our existing strengths and proximity to research sponsors and partners.

The National Capital Region of Virginia Tech currently consists of a number of research programs in a variety of technical disciplines. There is significant opportunity in the development of cross-disciplinary programs that meet the needs of the region and build even stronger bridges between NCR programs and other Virginia Tech locations. These opportunities can be realized through a focused effort that defines a small number of core technical programs that transcend disciplinary boundaries within the region, build upon the strengths of existing programs, and identify specific sources of funding to grow the research enterprise. The proximity of NCR operations to major funding sources and potential collaborative partners can be a major competitive advantage in the development of cross-disciplinary programs. Pooling the strength of several programs in different colleges and institutes would also overcome one of the significant limitations in the National Capital Region, namely, the lack of a critical mass of faculty and students in any one technical area.



A strategy for achieving this goal is to name a committee of program leaders from multiple disciplines who are charged with the identification and development of cross-disciplinary proposals in the core research areas. This committee would also be supplemented by representatives of additional organizations such as business partners, economic

Key funding agencies are all seeking ways to strengthen what has been called “the entrepreneurial ecosystem” at US universities, promoting translational research and new meaningful government-industrial-academic partnerships focused on innovation and technology transfer.

development representatives, and affiliated organizations such as the Virginia Tech Applied Research Corporation. Each member of the committee would act as a liaison with his or her organization to ensure that the strengths of each unit are adequately represented. The committee would utilize the existing support personnel for program development in NCRO to respond to solicitations that are within the core research programs areas.

MEASURES

- Number of cross-disciplinary programs identified as viable research opportunities.
- Number of successfully funded programs in core research areas.
- Overall growth of the NCR research portfolio.

Goal 2.2

Lead the region in the evolution of the role of research universities in entrepreneurship and innovation.

The US is a crucible for innovation, recognized internationally for the ability to coalesce ideas, capital, markets, and entrepreneurial acumen into successful products and businesses. The basic research conducted at US national laboratories and universities is also widely recognized as a key driver of innovation, but successful intentional efforts to translate research into commercial products have produced, at best, mixed results. Particularly now, when the US faces challenges in maintaining its historical leadership in science and technology and is looking to small businesses and start-ups as job creation engines, universities and their partners in government and industry are being challenged to find better ways to leverage scientific research to promote commercial high tech products, services, and manufacturing systems. NSF, NIH, DoE, DoD, and other key funding agencies are all seeking ways to strengthen what has been called “the entrepreneurial ecosystem” at US universities, promoting translational research and new meaningful government-industrial-academic partnerships focused on innovation and technology transfer. Likewise cities and universities (e.g., New York/ Cornell University’s Roosevelt Island Science Center, Rice University’s ‘Engaging Houston’ strategy) are looking to one another to bridge the gap between the ivory tower and the real world both to make the educational experience more meaningful and to intentionally create the kind of technology hubs that grew up organically in the Silicon Valley and Route 128 regions.

The NCR is a prime location to showcase the role of research universities in innovation, entrepreneurship, job creation, and economic development. The NCR leads the country in the growth rate of new jobs over the last decade, has the best educated workforce in the country, and is the prime location for the fastest growing companies in the US. NCR also has a strong community supporting entrepreneurs and small businesses; however, while more than 50 universities have a presence in the NCR, the northern Virginia region has lacked leadership from a major research university. Virginia Tech accepts the challenge to fill that role.



MEASURES

- Increased participation in and positive actions resulting from events sponsored or co-sponsored by Virginia Tech in the NCR related to the role of universities in promoting regional innovation, entrepreneurship, technology transfer, and translational research.
- Growth in functional partnerships involving industry, VT/academia, and federal/local government in the NCR that include translational research as a component.
- Increased entrepreneurial activity in the NCR by VT faculty and students.

Goal 2.3

Leverage the location of Virginia Tech in the NCR, the developing partnerships with governments, nonprofit and business organizations, and the problem-solving focus as a land grant university to integrate research and education.

Virginia Tech is committed to preparing students for a future characterized by globalization and technological innovation amid economic, social, and geopolitical uncertainties. Virginia Tech is also committed to engaging the most critical, real world problems facing communities, states, the nation, and the world through research and discovery. Both objectives are pursued through the “Living Lab” – a real-world learning environment that integrates co-creation, exploration, testing, analysis, and innovation in operational settings, and piloted with Arlington County as an expansion of our proven internship model in the National Capital Region (NCR).



Living Lab programs will be available for select cohorts of students in areas of study directly relevant to governance, social welfare, security, critical infrastructure, and community resilience.

Through the Living Lab model in the NCR, we propose a graduate certificate that is an explicit integration of practice and scholarship to foster high level collaborative planning, problem solving, and decision making skills across multiple sectors and organizations. In the proposed certificate, students would work for two semesters in an internship placement in Arlington or the broader NCR, while simultaneously attending a weekly lecture series along with administrators, policy makers, and business and nonprofit leaders. One goal of the weekly series is for this collection of minds to raise questions, generate insights, identify areas for research, and work toward best practices for translational work. Through internships, seminars, and ongoing interaction, questions for research are highlighted and engaged as part of the Living Lab partnership. Within the translational focus, students would have the opportunity to specialize in an area such as emergency management, transportation, housing, and so on, and their internship focus would reflect that specialization. Opportunities to engage in research developed through the lab setting with Virginia Tech faculty would also define the internship experience. Living Lab programs will be available Fall 2013 for select cohorts of students in areas of study directly relevant to governance, social welfare, security, critical infrastructure, and community resilience.

Beginning Fall 2013, enroll cohorts of students in the Living Lab certificate program to initially grow the program, and then to consistently manage while striving to continuously improve the Living Lab learning experience for students, participating organizations, and Virginia Tech faculty. Generate research initiatives based upon real world experience through Living Lab engagement with a problem solving focus. Model the collaborative skills, interdisciplinary knowledge, and critical analysis needed for engaging public problems at the local, state, national and international levels of governance.

MEASURES

- Number of students, organizations, and faculty participating in the Living Lab each semester.
- Number of research initiatives developed from Living Lab interaction.
- Exit survey metrics of graduating students and alumni who are 1, 3, and 5 years out to assess the impact of the lab on collaborative capacity, interdisciplinary knowledge, and the critical analysis modeled in the Living Lab.
- Surveys of participating organizations to assess the value of the on-site interns, the weekly interaction with interns and other organizational leaders, and the opportunity to engage VT faculty with key research questions.

STRATEGIC PRIORITY 3

Lead the University in becoming a distributed campus where all students, faculty, and staff have appropriate access to University resources

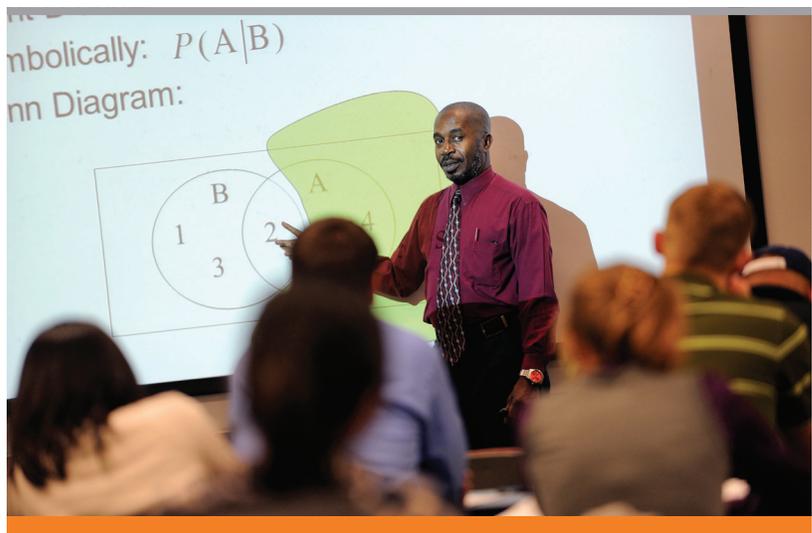
Goal 3.1

Plan for significant growth in the NCR enterprise through forward planning of infrastructure needs, student engagement, and faculty growth.

Successful implementation of this strategic plan will require a forward-looking strategy that relates growth in our NCR footprint with the future needs of our regional infrastructure. Such a holistic view of NCR infrastructure needs that account for the growth of educational and research programs is currently not available. The National Capital Region offers numerous opportunities for the agile use of space due to a fluid real estate market that can often meet the changing needs of our NCR programs. Taking full advantage of market conditions requires the university to have a long-term plan for space needs and be opportunistic in our approach to growth in our regional infrastructure. To achieve this goal we are proposing the development of an NCR space planning committee consisting of program leaders in NCR and Blacksburg. The charge of this committee would be to develop a comprehensive overview of infrastructure needs in the 2012-2018 time frame that are coupled to the projected student and research growth within the region. The committee would also be responsible for monitoring market conditions with the metropolitan DC area to understand the best opportunities for meeting the future infrastructure needs of the National Capital Region.

MEASURES:

- Naming of an NCR space planning committee within the first 3 months of 2013.
- Development of a regional infrastructure plan by the end of calendar year 2013.



In five years we envision every course, lecture, and meeting on any campus of Virginia Tech to be accessible to stakeholders on every other campus.

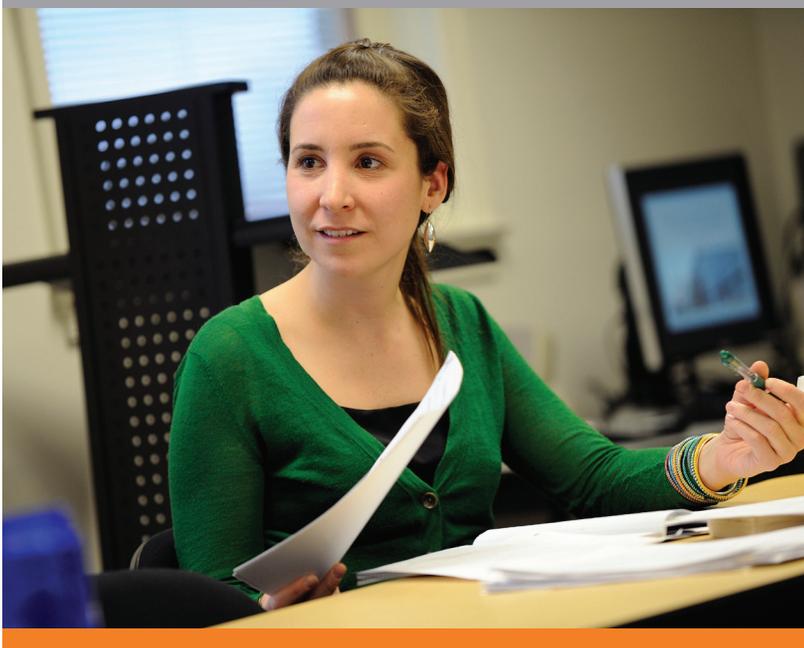
Goal 3.2

Identify differences in compensation, needs, and access to university resources.

The National Capital Region of Virginia Tech is home to several graduate degree programs, research centers and institutes, and administrative units. Virginia Tech employs more than 100 faculty and staff to carry out its land grant mission in the region. As part of A Plan for a New Horizon, Virginia Tech cites Organizational Efficiency and Flexibility as one of the four Structuring Challenges facing the university. This challenge is perhaps far more pronounced in the university's operations in the National Capital Region due to the lack of resources and infrastructure that reside in Blacksburg and are not readily available to students, faculty, and staff here; an organizational structure that does not meet the needs of an extended campus environment; and economic and competitive pressures of the region that are different from those in Blacksburg.

MEASURES

- To meet the Organizational and Efficiency challenge the current organizational model(s) should be reviewed and revised to meet the needs of students, faculty, and staff.



- Yearly reviews should be conducted to be sure that access to university resources is being improved.
- Faculty and staff compensations should be determined based on regional economic and competitive realities through consulting cost-of-living indices and other metrics available.

Goal 3.3

Utilize technology to the fullest extent to link all Virginia Tech campuses to one another for their mutual benefit.

In five years we envision every course, lecture, and meeting on any campus of Virginia Tech to be

accessible to stakeholders on every other campus. The resulting increase in collaboration and learning opportunities and the reduction in transportation and communication costs will be transformative. Growing

technological solutions can now be leveraged to turn this vision into reality. While current proprietary infrastructure (e.g., PolyCom, Centra, Interactive Video Conferencing (IVC)) provides a good starting point, a growing free and high quality set of platforms can significantly expand the possibilities with little new investment. For example with the integration of Virginia Tech e-mail services into Google platform, now every member of the community with a camera equipped computer can use the Google hangout for multi-site video conferencing, presentation, and meeting at no cost. This vision can be realized by identifying flexible and accessible solutions for the most common connection scenarios, providing additional infrastructure where needed, and documenting and disseminating these solutions across campuses and departments.



MEASURES

- Fraction of departmental faculty meetings that include NCR faculty through video conferencing.
- Number of lectures and talks that include audience from more than one campus.
- Number of IVC and non-IVC courses available to students on more than one campus.

Goal 3.4

Integrate the National Capital Region into the Virginia Tech experience and make the NCR a destination for Virginia Tech faculty, research staff, and graduate students.

The National Capital Region can be viewed as a destination from both geographic and virtual perspectives. Geographically, the proximity of NCR to US and international government and corporate headquarters provides unique opportunities for consultation and collaboration with respect to the learning, discovery, and engagement missions. Opportunities might also exist with professional associations, human



Alexandria / Arlington / Falls Church /
Leesburg / Manassas / Middleburg

At Virginia Tech, we know how important it is to have a comprehensive research university nearby. In the National Capital Region, Virginia Tech offers opportunities for **innovative research** and access to top-quality **graduate programs** taught by internationally recognized faculty. Our **outreach programs** benefit the social and economic well-being of your own community.

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services agencies, and other entities located in the region. Further, instructional and research outcomes can be enhanced by promoting collaborations and exchanges among faculty, research staff, and graduate students at NCR and other VT locations and among those groups and their counterparts at other universities in NCR. Strategies to achieve this goal include cultivating a mindset among faculty, research staff, and graduate students at NCR and other VT locations about the value of cross-region consultation and collaboration. Creating unique degree and research programs based on broad collaboration and capitalizing on NCR locations would also serve to make NCR a critical part of the Virginia Tech experience. Providing flexible lab and office space would serve to promote collaboration and enhance cross-campus opportunities. Providing apartments for short-term occupancy would simplify operations between NCR and other Virginia Tech locations.

Virtually, VT faculty, research staff, and graduate students at NCR and other locations can experience educational, research, and engagement benefits via technology that supports multi-way collaborations. Strategies include improving the quality, flexibility, and availability of equipment and facilities to support distance-learning, virtual research and outreach collaboration, and involvement of faculty, staff, and students from multiple locations in university governance, speakers and cultural events, etc. originating at different locations.

MEASURES

- Number of collaborations of all kinds indicated above and comparison with past number of similar collaborations.
- Availability of and improvement in equipment and facilities to promote cross-site collaborations and comparison with past resources.
- Availability of work and living spaces in NCR to support collaborations and comparison with past resources.
- Extent of satisfaction with ease of establishing collaborations of the types discussed above.