

CALS 2020 STRATEGIC PLAN



**COLLEGE OF AGRICULTURE
AND LIFE SCIENCES**
VIRGINIA TECH.



TABLE OF CONTENTS



VISION, MISSION, AND VALUES



INTRODUCTION



GLOBAL LAND GRANT



STRATEGIC PLANNING PROCESS



STRATEGIC PRIORITIES



Advance excellence in research, teaching, and extension for the commonwealth and beyond



Elevate the Ut Prosim (That I May Serve) difference



Be a destination for talent



Ensure institutional excellence



APPENDIX



VISION

We address current and emerging issues in agriculture and life sciences by building on the land-grant commitment of developing leaders and creating and sharing knowledge through diverse, hands-on applications that ultimately help communities thrive.

MISSION

The college creates, integrates, and shares knowledge to enhance:

- Life sciences, food, and agricultural systems
- The economic prosperity and life quality of the greater community
- The stewardship and health of land, water, and air for future generations
- Student learning through diverse, hands-on, experiential opportunities

VALUES

The College of Agriculture and Life Sciences embraces the following core values:

- Freedom of inquiry
- Mutual respect
- Lifelong learning
- A commitment to welcoming, inclusive, and diverse communities
- Ut Prosim* (That I May Serve)
- Personal and institutional integrity
- A culture of continuous improvement and inclusive excellence
- Integrated scholarship across the land-grant missions
- Global engagement in teaching, research, and outreach
- Interdisciplinary collaboration



LAND-GRANT

INTRODUCTION

Virginia Tech is home to one of the nation's premier comprehensive agricultural and life sciences programs. Our premise in the College of Agriculture and Life Sciences is that a thriving college can help create thriving communities. A thriving college is one that includes: a diverse, innovative, and creative world-class faculty; talented and forward-looking staff and students; a diverse student body; state-of-the-art facilities; and engaged stakeholders and alumni. Achieving these elements allows the college to solve current and emerging problems, to make positive impacts on people and their work and lives, and ultimately to create thriving communities around the world. This ambitious vision is aligned well with Virginia Tech's commitment to Ut Prosim (That I May Serve) and the efforts to advance Virginia Tech's Beyond Boundaries Initiative.

The College of Agriculture and Life Sciences already provides undergraduate and graduate students with an outstanding education, but it is important that we continue to evolve and pursue new approaches to teaching and learning that ensure our graduates are prepared to address the challenges of a diverse and changing world. The Virginia Agricultural Experiment Station and Virginia Cooperative Extension, along with many community and industry partners, offer the college a tremendous opportunity to expand student experiential learning. The research and extension programs on and off campus (including campus research laboratories, college farms, agricultural research and extension centers, and local extension offices), and our partnerships with numerous community organizations and industry firms around the world offer great opportunities to immerse students in solving complex, real-world problems, to provide them with the transferable skills needed for success in their professions, and to be productive members of society. We aspire to provide every student in the college the opportunity to engage in such experiential learning while pursuing their degree.

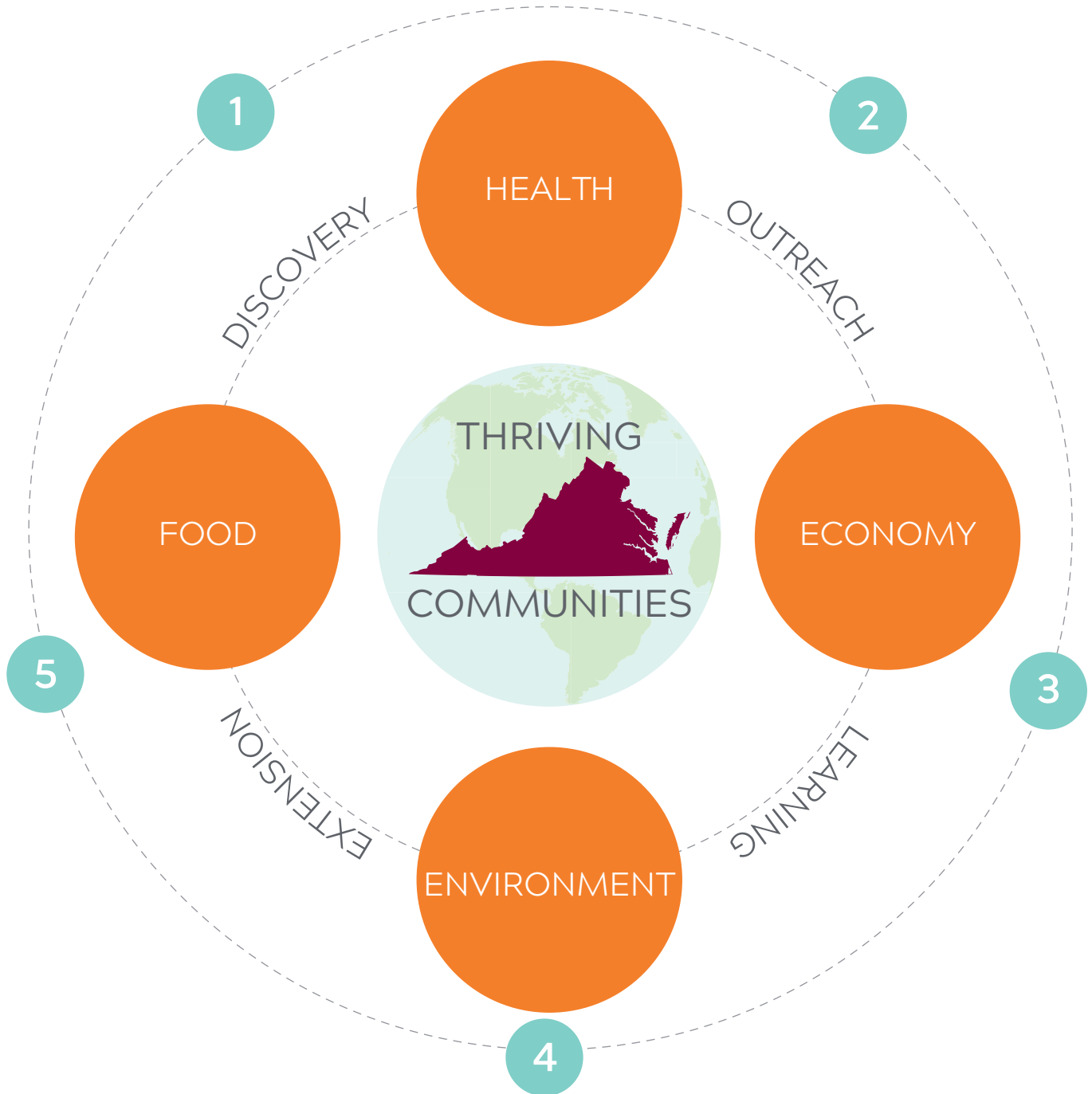


MISSION

Our land-grant mission demands that the college's research programs be relevant in addressing local, national, and global needs. The college must anticipate and respond to emerging issues important to our diverse stakeholders. Although the college relies on significant federal and state funding, annual levels of federal Hatch and Smith-Lever capacity funding and state funding are no longer sufficient to maintain today's research and extension programs, let alone meet future needs. Similarly, state support of the instructional mission has not kept pace with levels needed to provide students with a high-quality educational experience. These trends require us to be innovative, reallocate funds and develop new approaches for funding programs and operations. Our faculty and staff have been successful in growing extramural grant funding, but we must continue to enhance and leverage this creativity and competitiveness to diversify our research funding portfolio and pursue support well beyond traditional approaches and sources and better match the needs of our stakeholders. Our extension programs will focus on programs that are high-need, research-based, and can be delivered effectively to diverse audiences across the Commonwealth.

An effective land-grant college requires a sustainable resource base, a commitment to its core mission, and a culture of continuous improvement if it is to meet society's changing needs and capitalize on emerging opportunities. It also requires an environment that is supportive of a diverse and inclusive community and whose members embrace Virginia Tech's Principles of Community, InclusiveVT, and the college's core values. Ongoing and open communication within the college, as well as with the external stakeholders of the organization, is essential. The college must capitalize on the scholarly creativity and productivity of its diverse faculty, staff and students; it must use its resources wisely in order to carry out the land-grant missions; and it must routinely monitor its progress in achieving its goals and milestones.

Global Land Grant



In the College of Agriculture and Life Sciences, our ambition to help communities thrive is at the center of our identity. We have identified four major strengths of CALS – food, health, economy, and environment – that we will continue to exercise as we seek to help communities thrive. Using these strengths, our work will address many of the grand challenges facing our world, including comprehensive health and wellness, community empowerment, predictive environmental solutions, cultivating lifelong learners, and resilience and productivity through innovation. There is room for us to excel and grow while focusing on the theme of building thriving communities. By working together, we can all thrive.

1

Comprehensive health & wellness

- Infectious disease
- Drug addiction
- Behavioral change
- Rural health

2

Community empowerment

- 4-H
- Workforce preparation
- CALS Global

3

Predictive environmental solutions

- Climate resiliency
- Genomic editing
- Water systems

4

Cultivating lifelong learners

- K-12 education and beyond
- Experiential learning

5

Resilience and productivity through innovation

- SmartFarm Innovation Network™
- Cyberbiosecurity



**BEYOND
BOUNDARIES**

STRATEGIC PLANNING PROCESS

The foundation for our strategic planning process started more than three years ago, beginning with consultations with internal stakeholders and external constituents. This process helped define our strengths as a college and laid the groundwork for how to convey our vision in the coming years. We further refined this vision in 2019, when CALS leadership and selected faculty members met for two days to define the areas in which our college has unique and differentiating strengths and where we can best focus our efforts to make a difference in the world. These exercises resulted in a message that encompasses both the breadth and depth of work in the college. It highlights the impact of what we do, and goes to the heart of our teaching, research, and outreach missions: CALS helps communities thrive.

The strategic planning exercise began in earnest during fall 2019, with the formation of four working groups composed of more than 40 CALS and Virginia Cooperative Extension staff, faculty, and administrators (see appendix). Each group was tasked with developing the aspirational vision, goals, and milestones for a specific Strategic Priority. The four Strategic Priorities were adopted from the new Virginia Tech Strategic Plan “The Virginia Tech Difference: Advancing Beyond Boundaries.” To gather input, the working groups held five “listening sessions”—two for faculty, and one each for staff, graduate students, and undergraduate students of the college. A detailed survey seeking input was also sent to CALS employees and students. The working groups and the VT Office of Strategic Affairs led the gathering and interpretation of the extensive survey data. The working groups persevered through the disruptions caused by the COVID-19 pandemic and completed their work on time—we greatly appreciate their work. A Strategic Planning Steering Committee (appendix) utilized the contributions of the working groups to produce the completed Strategic Plan. This document will serve as a foundation for the college to create several implementation plans (e.g., diversity and inclusion; facility improvements; etc.) and for individual departments and units to develop their local strategic plans. Unless otherwise specified, milestones should be achieved by 2025.



STRATEGIC PRIORITY 1

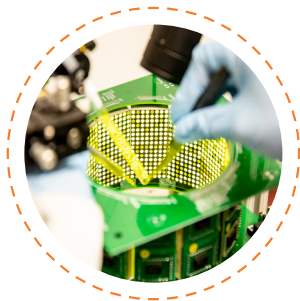
Advance excellence in research, teaching, and extension for the commonwealth and beyond

ASPIRATIONAL VISION:

The College of Agriculture and Life Sciences will be a global leader with world-class faculty and students by advancing its research, teaching, and extension missions as part of a comprehensive land-grant university.

GOALS

1. Advance excellence in research and discovery
2. Advance teaching and learning excellence
3. Advance excellence in extension and outreach for the commonwealth and beyond





MILESTONES

100%

of academic majors have required experiential learning and durability skill components

- Diversify and increase extramural expenditures by 20%.
- Increase number of interdepartmental, intercollegiate, national, and international collaborations by 10%.
- Ensure that 100% of academic majors have required experiential learning and durability skill components and increase undergraduate involvement in research, teaching and extension and graduate involvement in teaching and extension by 5% annually.

Diversify and increase extramural expenditures by

20%



- Increase faculty participation in pedagogy and extension training by 5% annually.
- Broaden collaborations by building new and leveraging existing partnerships at multiple scales, from campus to global.

10%



Increase number of interdepartmental, intercollegiate, national, and international collaborations

- Increase indicators of excellence across our missions, including nominations of faculty, staff, and students for awards, departments ranked among the top 10 of their peers, and comparative rankings of CALS with land-grant peers.

STRATEGIC PRIORITY 2

*Elevate the **Ut Prosim** (That I May Serve) Difference*

ASPIRATIONAL VISION:

The College of Agriculture and Life Sciences is the foundational component of Virginia Tech's **Ut Prosim** (That I May Serve) mission of service to humanity. CALS will build and support communities of discovery and learning for global citizens to engage with critical and emerging challenges.

GOALS

1. Address critical challenges related to environment, health, economy, and food, to build diverse and inclusive communities
2. Increase global impact and visibility of CALS
3. Support lifelong engagement, learning, and opportunity for alumni and local communities



MILESTONES

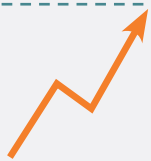
Increase CALS' impact on Virginia and beyond as measured by inventions, job creation, social change, startups, and economic and health impacts by

10%



Increase enrollment in CALS majors, minors and courses by 10%, and improve placement of graduates in emerging fields by 5%

10%



Increase partnership with stakeholders and participation in public events

- Increase partnerships with stakeholders (e.g. government, industry, nonprofits) and participation in public events highlighting critical environment, health, economy, and food challenges by 10%.
- Enhance internal engagement and communication to raise awareness of CALS engagement in communities around the world.
- Continually update and enhance graduate and undergraduate degree programs, majors, minors and course offerings across the college to reflect current and emerging challenges.
- Increase enrollment in CALS majors, minors and courses by 10%, and improve placement of graduates in emerging fields by 5%.
- Increase external communication about CALS activities addressing critical environment, health, economy, and food challenges as measured by the number of scholarly publications, citations, and popular media stories by 15%.
- Increase CALS' impact on Virginia and beyond as measured by inventions, job creation, social change, startups, and economic and health impacts by 10%.
- Increase on-site and virtual learning opportunities for alumni and community members at CALS, Agricultural Research and Extension Centers and Virginia Cooperative Extension locations throughout the Commonwealth by 10%.

STRATEGIC PRIORITY 3

Be a Destination for Talent

ASPIRATIONAL VISION:

The College of Agriculture and Life Sciences will be a force for positive change by attracting and retaining innovative, diverse, and dynamic faculty, staff, and students. Alumni, local, and global communities will recognize Virginia Tech as a lifelong learning destination. CALS will invest, empower, support, and value a workforce that will champion our vision for the future.

GOALS

1. Attract, retain, and develop the talents of diverse faculty and staff in research, teaching, and extension
2. Align salaries with land-grant peers
3. Attract, retain, and ensure degree completion of students
4. Increase representational diversity and cultural awareness in academics, research and extension



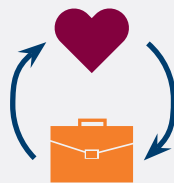


MILESTONES



Increase diversity of faculty and staff in leadership roles by increasing participation in leadership development opportunities

75%



Increase to CALS faculty and staff satisfaction with career advancement opportunities and work-life balance as reported in Employee Climate Survey

10%



Annual increase in numbers of URM and USS students in CALS

- Increase hiring and retention of diverse faculty and staff: URM faculty (to 15%), URM staff (to 20%), and achieve 50% females in all faculty ranks and 40% tenured and tenure-track female faculty.
- Increase diversity of faculty and staff in leadership roles by increasing participation in leadership development opportunities.
- Increase CALS faculty and staff satisfaction with career advancement opportunities and work-life balance to at least 75% as reported in Employee Climate Survey.
- Achieve progress in competitive administrative and professional faculty and staff salaries towards the 50th percentile of relevant market range.
- Increase numbers of URM and USS students in CALS by 10% annually.
- For first-year undergraduate students entering CALS, increase 4-year graduation rate within CALS to 52.2% and within Virginia Tech to 74.2%.
- Eliminate graduation rate gap between URM/USS and non-URM/USS students.

STRATEGIC PRIORITY 4

Ensure Institutional Excellence

ASPIRATIONAL VISION:

The College of Agriculture and Life Sciences will, through continuous strategic planning with intentional stakeholder involvement, create opportunities to solicit and explore innovative ideas, inform resource allocation, and engage the college's system of shared governance. CALS will also optimize efficiency, effectiveness of personnel, fiscal resources and processes in support of strategic goals across the statewide campus and global community.

GOALS

1. Continually enhance the physical and technological resources and human capital of the statewide and global campus to nurture robust, inter-disciplinary research, extension and instructional programs
2. Develop and foster mutually beneficial relationships with internal and external stakeholders.
3. Develop sustainable financial models necessary for meeting the human and physical aspirations of the college
4. Develop and launch an adaptive inclusive process for continuous strategic planning





MILESTONES

8.5M 

Increase philanthropic fundraising annually by fiscal year 2022-23



Develop a 3-year strategic facilities plan identifying programmatic space needs for renovation, major maintenance, major equipment, and new construction across all CALS units and locations.

By 2021, develop a process for annually updating the college on progress and accomplishments related to the goals and milestones of the strategic plan.



- Increase alumni giving to 19% by fiscal year 2021-22.
- Increase philanthropic fundraising to \$8.5M annually by fiscal year 2022-23.
- Develop and implement (with annual evaluation) a sustainable financial model and strategy for regular replacement and upgrades of computer and connectivity hardware.
- Develop a 3-year strategic facilities plan identifying programmatic space needs for renovation, major maintenance, major equipment, and new construction across all CALS units and locations.
- By 2022, ensure that existing and new programs empower faculty, staff, and students to apply for modest grants to try new ideas and develop innovative approaches and creative solutions, to advance excellence in the college.
- By 2021, develop a process for annually updating the college on progress and accomplishments related to the goals and milestones of the strategic plan.

APPENDIX

Alan Grant, Dean

Tom Thompson, Associate Dean, Strategic Planning Coordinator

STEERING COMMITTEE

Zeke Barlow
Matt Hulver
Lonnie Johnson
Ed Jones*
Stephen Kleiber
Tim Kring
Vernon Meacham
Saied Mostaghimi*
Tracy Rutherford
Susan Sumner*
Chevon Thorpe
Tony Wolf

*Working group member

STRATEGIC PRIORITY 1:

Advance Excellence In Research, Teaching, And Extension For The Commonwealth And Beyond

Megan O'Rourke, School of Plant and Environmental Sciences (Working Group Chair)
Saied Mostaghimi, Associate Dean (Liaison To Steering Committee)
Patricia Donovan, School of Plant and Environmental Sciences
Alan Ealy, Animal and Poultry Sciences
Zach Easton, Biological Systems Engineering
Haibo Huang, Food Science and Technology
Kiho Lee, Animal and Poultry Sciences
Janet Rinehart, Human Nutrition, Foods and Exercise
Jayesh Samtani, Hampton Roads AREC
Daniel Slade, Biochemistry
Christy Teets, Dairy Science
Zhijian (Jake) Tu, Biochemistry
Kang Xia, School of Plant and Environmental Sciences

STRATEGIC PRIORITY 2:

Elevate The Ut Prosim Difference

Olga Isengildina Massa, Agricultural and Applied Economics (Working Group Chair)
Susan Sumner, Associate Dean (Liaison To Steering Committee)
Rebecca Cockrum, Dairy Science
Janet Donahue, Biochemistry
Tim Kring, Entomology
Tom Martin, Agricultural Technology
John McDowell, School of Plant and Environmental Sciences
Kim Niewolny, Agricultural, Leadership, and Community Education
Mark Reiter, Eastern Shore AREC
Janet Spencer, VCE Southeast District
Jonathan van Senten, Virginia Seafood AREC
Katie White, Agricultural and Applied Economics
Molly Wilson, Academic Programs



STRATEGIC PRIORITY 3: Be A Destination For Talent

Rob Williams, Food Science and Technology,
(Working Group Chair)
Matt Hulver, Assistant Dean (Liaison To Steering
Committee)
Jonathan Auguste, Entomology
Stephanie Brown, Human Resources
Helene Doughty, Eastern Shore AREC
Mark Estienne, Tidewater AREC
Erin Ling, Biological Systems Engineering
Diana McHenry, Alson H. Smith, Jr. AREC
Kathryn Payne, Southern Piedmont AREC
Tracy Rutherford, Agricultural, Leadership,
and Community Education
Hannah Scherer, Agricultural, Leadership,
and Community Education
Michael Schwarz, Virginia Seafood AREC
John Thompson, VCE Northern District

STRATEGIC PRIORITY 4: Ensure Institutional Excellence

Neal Vines, CALS IT
(Working Group Chair)
Ed Jones, Associate Dean (Liaison To Steering Committee)
Susan Duncan, Virginia Agricultural Experiment Station
Ben Grove, CALS Global and VCE
Stephanie Hedrick, Agricultural and Applied Economics
Patrick Hilt, Facilities
Joseph Oakes, Eastern Virginia AREC
Scott Salom, Entomology
Elena Serrano, Human Nutrition, Foods and Exercise
Sherif Sherif, Alson H. Smith, Jr. AREC
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