

UVA Engineering's Roadmap to Excellence

Mission: Our mission is to make the world a better place by creating and disseminating knowledge and by preparing engineering leaders to solve global challenges.

Our Vision: We will be a leader among engineering schools in seizing opportunities to benefit humanity through bold research and world-class education.

We will achieve our mission and vision while abiding by our core values, which are:

- **Societal Impact** - Passion for making a positive impact on the world
- **Educating Engineering Leaders** - Dedication to imbuing students with technical and professional knowledge that is applied with integrity and wisdom, so they are fully prepared to be the leaders of the future
- **Innovation** - Determination to innovate, create knowledge and lead in teaching and research while abiding by the highest standards of ethics
- **Excellence Through Diversity** - Commitment to diversity, which we define as excellence expressing itself through every person's perspectives and lived experiences
- **Collegiality** - Marked by collaboration, teamwork and support for each other's success

Goals

We will pursue:

1. A focused and high-impact faculty with disciplinary strength which they bring to bear in leading multidisciplinary research and related core research and graduate programs in areas of societal importance.
2. The highest-quality student experience rich in experiential learning and deployed with effective, modern pedagogy.
3. A diverse and engaged community that supports innovation in research and education.
4. A professional community of faculty and staff committed to shaping the future success of UVA Engineering (“employee owners”).
5. A community of alumni, friends and corporate/private foundation partners engaged in advancing the mission of UVA Engineering.
6. Administrative support processes that effectively and efficiently enrich the research and educational missions.

Goal 1: We will pursue a focused and high-impact faculty with disciplinary strength which they bring to bear in leading multidisciplinary research and related core research and graduate programs in areas of societal importance.

Strategy 1A: Develop our faculty to be competitive with aspirational peers (Top 20).

Tactics:

- Provide research development training and support for faculty at all levels.
- Increase T3 size to 175 (2020), longer term to 200 – 220, with balanced increase in general faculty, while focusing on improving overall quality and impact.
- Reorganize strategically to provide structure so that focus and depth emerge.
- Focus School of Engineering hiring on developing focus and depth; partner with other schools and colleges at UVA for programs outside our primary mission.

Strategy 1B: Nurture multidisciplinary cross-cutting culture that leverages expertise across the School and UVA.

Tactics:

- Hire in multidisciplinary clusters with strategic opportunity.
- Organize around three or four primary themes for impact with depth and focus in areas with a competitive advantage.
- Create incentives that drive pursuit of team-based scholarship, and ensure or develop policies to support this approach.
- Provide support (staff, administrative assistance, buy-out, etc.) for cross-cutting initiatives that will enable research to grow.
- Develop long-term industrial partnerships that leverage basic science research into translational research.
- Institutionally support and strategically plan for extramurally supported research centers.
- Build strategic research partnerships both internally and externally.
- Nurture a collaborative continuous innovation process to identify new opportunities.

Strategy 1C: Position UVA Engineering as a national leader in conducting multidisciplinary research that addresses society's challenges and opportunities.

Tactics:

- Develop and work with faculty to develop clear and compelling messaging around our research strengths.
- Communicate research news and accomplishments across all available platforms and “channels,” including Web, social media, mass e-mail, direct mail and owned and earned media.
- Broadly communicate cross-cutting research initiatives and hiring efforts.
- Engage in national advertising that highlights UVA Engineering's research leadership.
- Build UVA Engineering's reputation as a go-to source for expertise and thought leadership in areas aligned with our research strengths.
- Systematically celebrate individual and team faculty achievements.

Goal 2: We will pursue the highest-quality student experience rich in experiential learning and deployed with effective, modern pedagogy.

Strategy 2A: Infuse innovative, experiential and research-based educational experiences throughout the graduate and undergraduate curricula.

Tactics:

- Incentivize and reward externally recognized excellence in pedagogic innovation.
- Provide support for scholarship in engineering education and its dissemination.
- Engage education professionals/specialists and other resources to enable improvements in teaching pedagogy and learning methods to create a culture of continuous improvement in education.
- Broadly communicate innovative educational programs across all available platforms and “channels,” including Web, social media, mass e-mail, direct mail and owned, paid and earned media.
- Build UVA Engineering’s reputation as a go-to source for expertise and thought leadership in areas aligned with our pedagogical strengths.

Strategy 2B: Prepare students to thrive in a world that demands multidisciplinary approaches to societal challenges.

Tactics:

- Provide undergraduate and graduate students opportunities for fundamental and translational research.
- Grow the graduate program in size and stature.
- Coach students on how to apply for prestigious external awards and fellowships. Nominate students for these external awards.
- Provide academic writing and communication opportunities to students.
- Recognize and publicize student educational and research achievements.

Strategy 2C: Launch every student into opportunities for lifelong impact.

Tactics:

- Expose students to a variety of career options, including coveted industrial positions and academic placements.
- Engage each student in professional and career mentorship and guidance. Provide comprehensive advising, i.e. career and professional advice, in conjunction with academic and developmental advice.
- Continuously assess program metrics and student performance in these areas.
- Provide nationally recognized online education to support professional advancement.
- Highlight alumni success and achievements, and involve alumni in career mentorship.

Strategy 2D: Prepare students to be the global engineering leaders of the future.

Tactic:

- Engage each student in educational experiences to develop the whole student, including leadership, experiential learning, entrepreneurship, international work and study opportunities, creativity, critical thinking, and communication.
- Provide support for student engagement in external competitions and highlight student success.

Strategy 2E: Create a welcoming and engaging environment that supports the success of all students.

Tactics:

- Analyze student data and apply interventions to enhance the school's culture and ensure all students have the opportunity to thrive.
- Recruit and matriculate a rich and diverse student body ready to fully engage in addressing society's technological opportunities and challenges.
- Provide merit scholarships to attract top students.

Goal 3: We will pursue a diverse and engaged community that supports innovation in research and education.

Strategy 3A: Prioritize the presence and engagement of diversity at all levels of the UVA Engineering community, from undergraduate to faculty and staff.

Tactics:

- Conduct research into the academic experiences of undergraduates.
- Train faculty on best practices in diversity classroom engagement.
- Support staff to be culturally competent.
- Host and broadly publicize an Excellence Through Diversity Distinguished Learning Series.
- Host “Can We Talk?” monthly forums for students, faculty and staff to discuss diversity issues.

Strategy 3B: Harness and demonstrate the strategic value of diversity and inclusion in UVA Engineering’s research and educational programs.

Tactics:

- Provide research experiences for undergraduate students that give opportunities for fundamental and translational research.
- Establish an Excellence Through Diversity Post-Doc program.
- Support research at the intersection of engineering, race, gender and diversity.
- Ensure communication and publicity of research and educational achievements include broad, diverse representation across students, faculty, staff and alumni.

Strategy 3C: Optimize the impact of UVA Engineering’s outreach and engagement activities internally and externally.

Tactics:

- Develop one or two signature K-12 programs in collaboration with Admissions to serve the state and UVA.



- Optimize the Excellence Through Diversity Distinguished Learning Series as the signature diversity series in the State of Virginia.
- Build UVA Engineering's reputation for thought leadership in diversity.
- Grow study abroad engagement among underserved students.

Goal 4: We will pursue a professional community of faculty and staff committed to shaping the future success of UVA Engineering (“employee owners”).

Strategy 4A: Build trust between and among faculty, staff and leadership.

Tactics:

- Cultivate an environment open to transparent and respectful communication.
- Develop, broadly communicate and follow a body of core values.
- Encourage self-governance – empower elected bodies of the faculty, students, and staff.
- Develop effective and sustainable mechanisms for internal communication.
- Provide more social opportunities among faculty and staff.
- Create a system of structured feedback for leadership, faculty and staff.

Strategy 4B: Recognize and value multidimensional contributions.

Tactics:

- Expect each member of the school to contribute to the mission and vision of the school.
- Give due emphasis to the joint mission of the School and University.
- Align merit-based evaluation, reward, and promotion systems to our mission, vision and core values.
- Train managers and supervisors.
- Provide clear examples and feedback to show what excellence means in terms of performance.
- Create a system of employee recognition that demonstrates value for multidimensional contributions to the excellence of the School and University.

Strategy 4C: Empower faculty and staff**Tactics:**

- Commit to employee development – provide varied opportunities and resources for learning, collaboration, advancement, and leadership for all employees.
- Encourage self-governance – establish clear responsibilities for elected bodies of the faculty and staff.
- Actively protect academic freedom.
- Encourage faculty and staff to create processes that improve job efficiency and satisfaction.
- Develop stronger employee mentorship and training programs.
 - Develop a plan for succession and job vacancies.
 - Provide opportunities for cross training.

Goal 5: We will pursue a community of alumni, parents, friends and corporate/private foundation partners engaged in advancing the mission of UVA Engineering.

Strategy 5A: Empower trustees, alumni, parents, students and School and University leaders as brand ambassadors who can project UVA Engineering's mission to make the world a better place by creating and disseminating knowledge and by preparing engineering leaders to solve global challenges.

Tactics:

- Provide potential ambassadors with clear, compelling and easily shareable news content showing the importance and impact to society of the School's research and educational programs.
- Develop modern, compelling and up-to-date tools, materials, resources and training for ambassadors to use as they share UVA Engineering's positive narrative.
- Share opportunities for philanthropic partnerships in School initiatives and departments, and demonstrate impact of prior investments.

Strategy 5B: Fund UVA Engineering's strategic priorities through deeper engagement of a larger base of alumni, parents, friends and corporate/private foundation partners.

Tactics:

- Build a high-performing advancement team whose work is inspired, goal-oriented and mission-driven.
- Engage top University and Engineering School prospects in making lead gifts to support strategic priorities; leverage Strategic Investment Fund and other University funding.
- Capitalize on University-wide investments in Bicentennial Professorships and Bicentennial Scholars.
- Leverage UVA reunions with enhanced Engineering class-agent program and increase fourth-year student participation in giving.

- Demonstrate impact through enhanced stewardship program to provide systematic and timely communications for annual, major and leadership gifts.
- Develop corporate/private foundation philanthropic strategy with well-defined goals, priority partners and engagement opportunities.
- Strengthen partnership with UVA Advancement on major prospect cultivation, annual giving, data analytics, continuing education, training and hiring, and campaign planning.
- Develop the comprehensive campaign, case and strategy aligned with the University and in strong partnership with UVA Advancement.
- Strengthen Department-level annual giving campaigns in coordination with School campaign.
- Accelerate giving at new Thornton Society levels (\$5,000; \$10,000; \$25,000 and \$1,000 for young alumni). Partner with stakeholders to actively support UVA Engineering's goals for recruiting diverse students and faculty by raising funds for new diversity recruitment scholarships, fellowships, professorships and research.

Goal 6: We will pursue administrative support processes that effectively and efficiently enrich the research and educational missions.

Strategy 6A: Continually evolve the Engineering financial model to align with and support strategic priorities.

Tactics:

- Develop, align, and steward annual operating budget against priorities.
- Continually refine 5-year financial forecast model.
- Institute scenario and risk planning.

Strategy 6B: Redesign administrative processes for efficiency and effectiveness to build operational excellence.

Tactic:

- Identify and redesign 3-5 inefficient processes each year (continuous improvement and operational excellence).

Strategy 6C: Organize and develop administrative support capabilities that enable excellence in the mission.

Tactics:

- Develop a new IT support model for UVA Engineering/Departments.
- Refine finance support model for UVA Engineering/Departments.
- Transition HR support to align with and leverage UFirst.
- Document mission-critical processes to minimize disruption during turnover.

Strategy 6D: Develop short- and long-term resource plans (financial, human resource, space) that support the mission.

Tactics:

- Develop an integrated, strategic facilities plan.
- Develop a strategic IT plan.
- Develop a long-term staffing plan.
- Catalog equipment and develop a maintenance and replacement strategy.

Strategy 6E: Invest in the skills and competencies of our people.

Tactics:

- Promote cross-training opportunities to ensure coverage during staff absences.
- Encourage supervisors to jointly create development plans with staff.