

### *Empowering People to Create a Better Future*

Founded in 1836, the U.Va. School of Engineering and Applied Science (SEAS), combines excellence in undergraduate and graduate education in a robust research institution. The undergraduate program offers courses in engineering, ethics, mathematics, the sciences, business, entrepreneurship and the humanities. The program also places great emphasis on leadership and service. Faculty and graduate student research addresses societal challenges including creation of a sustainable future, engineering improved health, advancing the cyber and physical infrastructure and providing personal and societal security. This research is often conducted in collaboration with U.Va.'s highly ranked medical, architecture, education and business schools, as well as the College and Graduate School of Arts & Sciences.

Since 2005, the Engineering School has hired 31 new faculty, built 200,000 square feet of new buildings, increased research funding by 49 percent and significantly increased the quality of its undergraduate students. The Engineering School of today is comprised of 140 distinguished tenure track and 46 non-tenure track faculty, 85 research professionals, a student body of 2,400 undergraduates and 616 graduate students.

### **SEAS MISSION**

**Through the creation and transfer of knowledge, SEAS educates leaders in the application and development of engineering and scientific solutions that benefit the world.**

### **SEAS VISION**

**Empowering people to create a better future**

SEAS will integrate a personalized, high-impact student experience within a leading public research university by:

- Providing student-focused educational programs within a thriving research environment, technical rigor and a broad educational experience across U.Va.
- Emphasizing leadership and service
- Connecting our undergraduate and graduate educational and research programs
- Living by our core values every day
- Empowering faculty, staff and students to succeed

**SEAS CORE VALUES** - SEAS is committed to:

- The value it places on students in a thriving research environment
- Development of its faculty and staff
- A culture of mutual respect for all members of the SEAS community
- Appreciation of diversity in all its aspects
- Leadership for the public good
- Honor and ethics
- Innovation and collaboration in the pursuit of knowledge

## SEAS GOALS AND STRATEGIES

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The SEAS Strategic Plan was developed to guide the Engineering School in the coming years as it maintains and strengthens one of the nation's most successful and distinctive engineering education programs, while at the same time expanding its longstanding, high-impact research activities. The SEAS strategy is to invest strategically, funding selected new efforts that leverage current and emerging strengths to further distinguish the School in education and scholarship. In order to maximize its investments, SEAS will strengthen its foundation, focusing on initiatives that increase its operational effectiveness, expand its external partnerships, and develop and reward its people. SEAS will create a culture that removes barriers and rewards innovation and collaboration.

### SEAS GOALS AND KEY ACTIONS

#### **Prepare Graduates for Leadership**

- Provide each student with a sustained, high-impact education
- Increase impact and size of the graduate program

#### **Increase Research Impact**

- Increase faculty and graduate student scholarly productivity
- Increase undergraduate student participation in research

#### **Expand SEAS' Reach**

- Increase SEAS community outreach efforts
- Increase SEAS presence near key strategic partners

#### **Create an Environment Where Faculty and Staff Can Succeed**

- Increase faculty from 140 to 170
- Increase staff to faculty ratio to better support faculty

#### **Create a Model for Operational Excellence**

- Implement an efficient and cost effective organizational structure
- Maximize SEAS productivity

#### **Identify Resources for the Future**

- Increase annual fund by 20 percent
- Increase major gifts by a factor of 5

### SEAS RESEARCH STRENGTHS ADDRESS FOUR MAIN SOCIETAL CONCERNS:

#### **Creating a Sustainable Future**

- Society must learn to better manage our natural resources while providing sufficient energy for improved life.

#### **Engineering Improved Health**

- Technology and quantitative understanding of living systems can be used to enhance the diagnosis and treatment of disease and to improve the human condition.

#### **Advancing the Cyber and Physical Infrastructure**

- Although the current cyber and physical infrastructure allows society to function in ways that would have been unknown in the not-too-distant past, there are many challenges to reinvigorating and expanding the reach of this field.

#### **Providing Personal and Societal Security**

- The need for advances in protecting personal privacy and societal security have become increasingly important as more personal and societal functions rely on information technology.