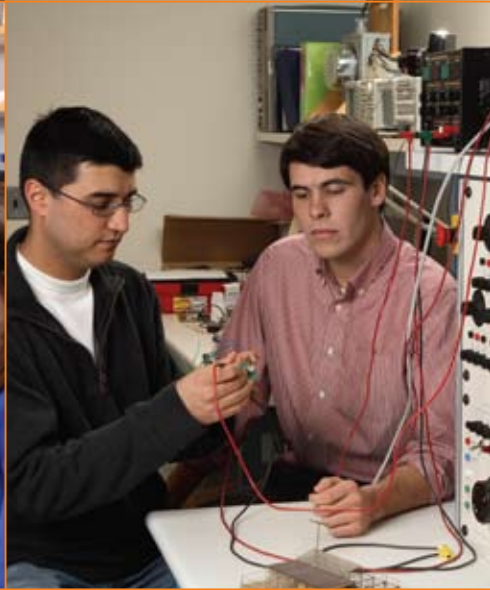


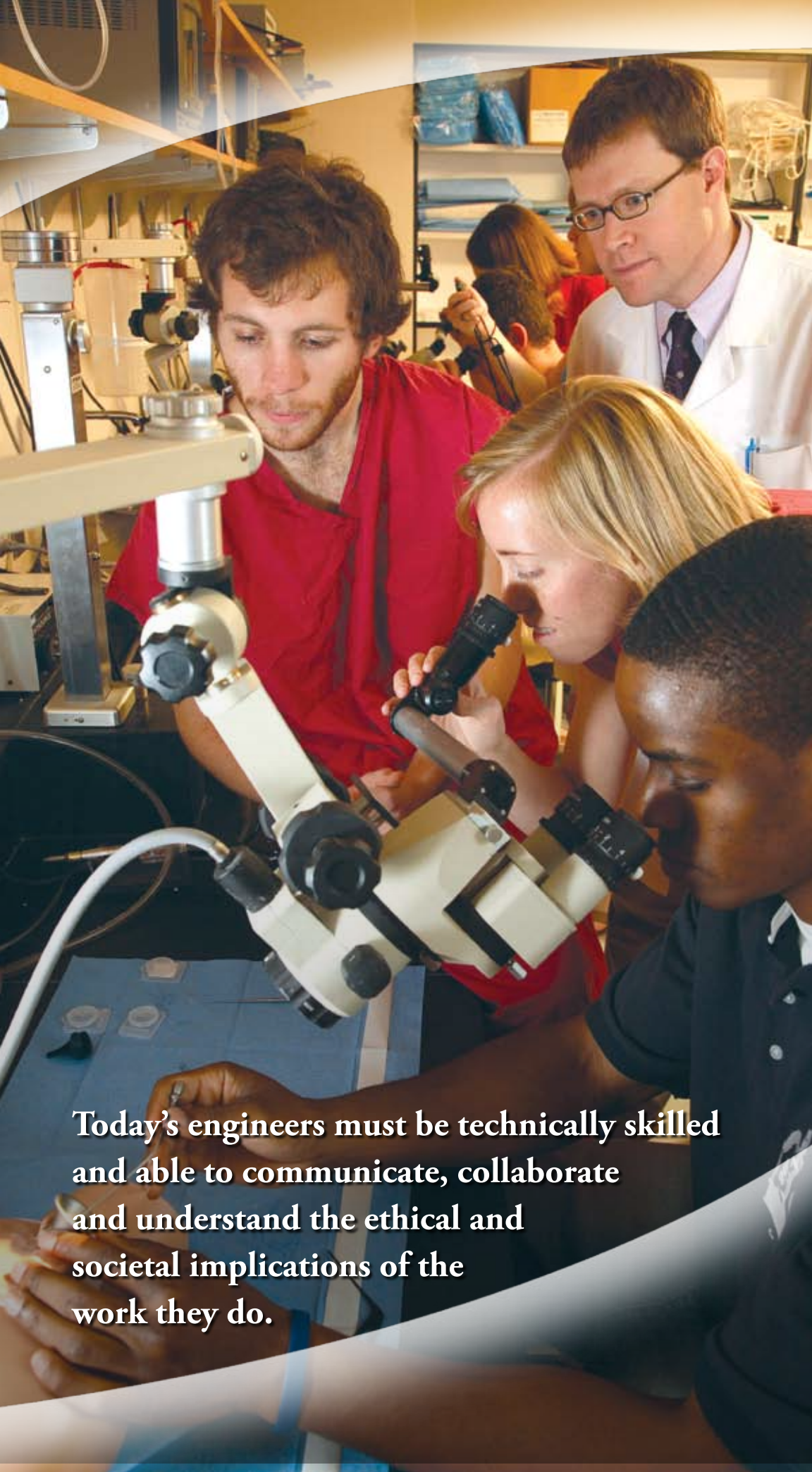
UNIVERSITY of VIRGINIA

SCHOOL of ENGINEERING & APPLIED SCIENCE

UNDERGRADUATE ENGINEERING



DEVELOPING LEADERS of INNOVATION



Today's engineers must be technically skilled and able to communicate, collaborate and understand the ethical and societal implications of the work they do.

The Jeffersonian Engineer:

Making a Difference in Today's Society



University of Virginia founder Thomas Jefferson believed in — and created — a unique educational community where students could be educated in critical and creative thinking as well as the “useful sciences.” The School of Engineering and Applied Science, with an undergraduate curriculum flexible enough to allow students to minor and double-major outside of their primary area of study, gives students the opportunity to master analytical and technical engineering skills while also benefiting from the depth and breadth of a liberal arts education in a thriving university community.

The University of Virginia

For the past decade, *U.S. News & World Report* has ranked the University of Virginia as **one of the top two public universities in the nation** each year. U.Va. Engineering undergraduate students have the opportunity to study with faculty throughout the Engineering School and the University who are experts in their fields.



The U.Va. Engineering School consists of approximately:

- 2,200 undergraduate students
- 700 graduate students
- 180 faculty
- 85 research professionals

The Center for Engineering Career Development provides engineering students:

- Comprehensive internship and career guidance counseling
- Résumé critiques and mock interviews
- Engineering-specific career fairs
- Alumni career mentors and networking avenues
- Strategies for a career-related internship or cooperative experience prior to graduation

>>For more information visit
www.seas.virginia.edu/careerdevelopment/

Our graduates are:

- CEOs
- Astronauts
- Entrepreneurs
- Lawyers
- Doctors
- Engineers

>>Visit www.seas.virginia.edu/report for more information.

Our faculty are:

- Dedicated to teaching, advising and mentoring students; our 14:1 student:faculty ratio means students can work closely with their professors
- Recognized experts in their fields: more than 10 are members of the National Academy of Engineering, and around 70 are fellows of professional societies
- Cutting-edge researchers, attracting millions of dollars in research grants each year

Elements of the Undergraduate Experience

We prepare civic-minded engineers with the knowledge and skills they need to be experts and leaders in engineering and many other fields in which technical and analytical backgrounds are assets.

Diversity

The Engineering School attracts some of the **brightest, most talented students** from across the country and the world.

- 30 percent of our students are women
- 25 percent are members of minority groups
- U.Va. Engineering students represent around 75 different countries

>> Visit www.seas.virginia.edu/diversity for more information.

Challenging Curricula

We bring exceptional students together in an educational environment that challenges them to do their best. Our curriculum is demanding but flexible; students can minor in **engineering business** or **technology policy** or choose from myriad other subjects offered throughout the University. In addition, our students have the **opportunity to study abroad** and apply their skills through a variety of internship and externship options.



Distance Education Opportunities

In 2007, the U.Va. Engineering School created the Engineers PRODUCED in Virginia distance education program to help students in the Virginia Community College System earn four-year engineering degrees without leaving their communities.

PRODUCED students join live class sessions online and in real time through tablet PCs and computer headsets for two-way audio interaction. It's a learning environment suited to nontraditional students who may be balancing their education with family and career.

>> Visit www.seas.virginia.edu/producedinva for more information.



Hands-On Engineering

At U.Va., we give students a taste of what engineering is really like, providing young engineers with **hands-on opportunities to work — and play — in the field.**

- Students participating in the Society of Automotive Engineers' Mini Baja® competition put their engineering skills to the test by designing and constructing a rugged off-road vehicle with a 10-horsepower engine.
- By participating in the NASA-sponsored FIRST Robotics competition each year, our students assist high school students interested in engineering and technology in building robots that accomplish specific tasks in state and national competitions.

From these competitions to the innovative projects in our first-semester introductory courses to our industry co-op programs, we make sure that our students have the opportunity to roll up their sleeves and practice engineering from their first weeks on U.Va.'s Grounds.

>> Visit www.seas.virginia.edu/student.php for more information.



Undergraduate Research

Students in the Engineering School work alongside faculty members in laboratories throughout the School, **learning the research process first hand.** You can find them probing the mechanical properties of cells, testing new techniques for weather forecasting and studying thermal boundary resistance in thin film metals, among scores of other projects.

A Broad, Multidisciplinary Perspective

Engineers do not act in isolation. To produce lasting value, they must **understand the ethical, social and historical contexts** in which they work. This theme runs through all our courses, especially those offered by the Department of Science, Technology and Society, one of the first departments of its kind at a national, comprehensive university.

In addition, our thesis, a requirement for all Engineering School undergraduates for over 100 years, enables our students to investigate specific areas of interest and to develop and apply the critical thinking and analytical skills necessary to succeed in their fields.

>>Visit www.sts.virginia.edu for more information.



Engineering in Action

Our students take advantage of a number of **activities designed to enlarge their perspective**. For example, our students:

- Work side-by-side with legislators and high-level policy makers in places such as Washington, D.C. and Paris as part of our annual 10-week Science and Technology Policy Internship Program
- Collaborate with architecture students and faculty to make ecoMOD homes, a series of affordable, environmentally responsible, prefab houses
- Complete Engineering in Context capstone projects that allow them to apply their skills to real-world engineering problems at home or abroad
- The Engineering School's International Programs is helping students gain a global perspective as they apply their engineering knowledge and skills in developing communities around the world.



Engineering; A Service Profession

Through class projects, capstone design projects and student organizations such as Engineering Students Without Borders, **our students are using their engineering skills to improve life for others**. From implementing waste treatment solutions for isolated villagers in Nicaragua to designing safe, energy-efficient housing for the disadvantaged and elderly residents of Charlottesville, Va., our students experience the importance of engineering in solving human problems.

Majors

Undergraduates can receive Bachelor of Science degrees in aerospace engineering, biomedical engineering, chemical engineering, civil engineering, computer engineering, computer science, electrical engineering, engineering science, mechanical engineering and systems engineering.

Minors

About 40 percent of our students choose to earn a minor. In addition to earning minors in many of our major fields, our students can minor in applied mathematics, engineering business, the history of science and technology, materials science, science and technology policy as well as technology and the environment. Our students also minor in subjects such as economics or foreign languages offered throughout the University.

>>Visit www.seas.virginia.edu/advising/undergradhandbook.php for more information.

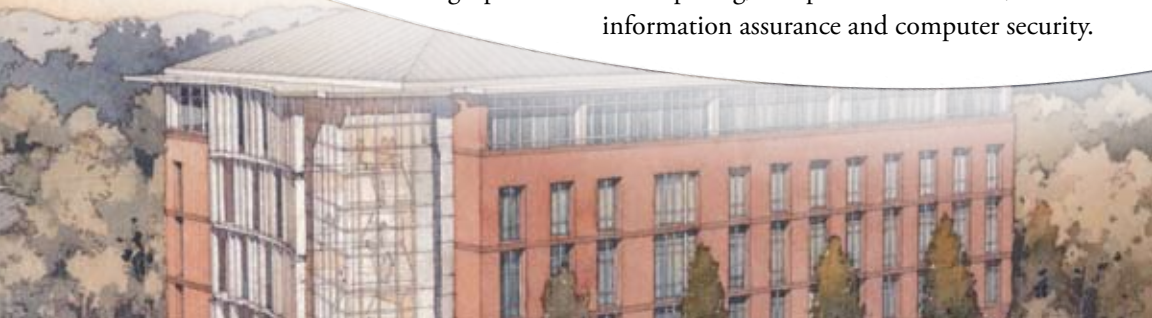
What is It Like to Learn and Live Here?

We Offer the Opportunity to Advance Knowledge in a Historic Setting

Advanced Engineering Facilities

In recent years, the Engineering School has experienced vigorous growth. Funding from the Whitaker Foundation has helped enable the Department of Biomedical Engineering to build a spacious facility that contains laboratories, offices and classrooms, while a private and state coalition fueled the creation of Wilsdorf Hall, the School's 99,000-square-foot building for collaborative research in materials science and engineering, chemical engineering and nanotechnology.

The Rice Hall Information Technology Engineering Building — now scheduled for occupancy in spring 2011 — will facilitate research in areas such as high-performance computing, computer visualization, information assurance and computer security.



An Exceptional University Environment

Thomas Jefferson conceived of the University as an “Academical Village.” He recruited the best available faculty and students and created a suite of buildings meant to promote the exchange of ideas and to transmit knowledge to future generations.

The community Jefferson created to nurture the life of the mind still endures, as does the beautifully proportioned Lawn that he designed. It was selected as a World Heritage Site in 1987.

A Great Place to Live

The Charlottesville area offers a way of life that seems increasingly out-of-reach for most communities; it has consistently been rated by various publications as among the best places to live in the United States. Crime is low, recreational and cultural attractions abound, and medical facilities are outstanding. With its graceful surroundings and cosmopolitan atmosphere, Charlottesville is indeed Jefferson's country.

What Now?

Join us. For more information about undergraduate admissions, please contact Edward Berger, associate dean of Engineering School undergraduate programs, at • 434.924.3164 or berger@virginia.edu or visit us on the Web at www.seas.virginia.edu • www.seas.virginia.edu/admissions.php • www.virginia.edu/financialaid

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