YOU SHOULD KNOW...

Engineering Science students interested in teacher certification can enroll in a five-year program that combines a Bachelor of Science in Engineering Science with a Master of Teaching from UVA’s Curry School of Education.

In addition to its doctorate programs, the department offers a Master of Science in Materials Science and Engineering; a Master of Materials Science and Engineering; and a Master of Science and a Master of Engineering in Engineering Physics.

Thanks to our Nanomaterials Characterization Facility, faculty and students can turn to such advanced equipment as the FEI Titan transmission electron microscope and the FEI Quanta 650 scanning electron microscope to further their research.

In addition to a member of the National Academy of Engineering, our faculty includes fellows of the American Association for the Advancement of Science, the American Physical Society, the ASM International Materials Information Society, the Electrochemical Society, and the National Association of Corrosion Engineers, among other professional groups.

WHY MAJOR IN MATERIALS SCIENCE & ENGINEERING AT UVA?

Students who take Engineering Science, the undergraduate program of the Department of Materials Science and Engineering, like the freedom to chart their own course. Engineering science is the only interdisciplinary degree program at UVA Engineering. Students can create an undergraduate program that matches their interests or career goals by combining a minor in one engineering discipline with a second minor in mathematics, science, or another engineering discipline. Engineering Science students can also opt to take more defined, named programs in Materials Science and Engineering: Nanomedicine and Structural Mechanics and Materials.

Our Engineering Science major has the advantage of moving students to the interface between disciplines, where solutions to the complex challenges society faces are likely to be found. Both graduate schools and employers find this interdisciplinary perspective compelling.

JOIN THE CONVERSATION

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Department of Materials Science & Engineering
395 McCormick Rd., VA 22904
434-924-5641 | mat-sci@virginia.edu

SCHOOL of ENGINEERING & APPLIED SCIENCE

DEPARTMENT OF

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The department is a great base for building a career, thanks to our tight-knit, collegial faculty. We both encourage and support collaboration—and our faculty members have formed successful research partnerships with colleagues across the University, the nation and the world. Our department has excellent facilities. Wilsdorf Hall was custom-designed for materials science and nanotechnology, and we have assembled a cutting-edge suite of characterization tools.

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WHY CHOOSE UVA FOR A GRADUATE DEGREE IN MATERIALS SCIENCE & ENGINEERING?

World-class expertise in a number of targeted strengths draws graduate students to the department. They come here to study with leaders in such fields as environmentally induced degradation of materials, very–lightweight metallic materials and structures, and laser modification of surfaces and surface structures. The department is developing emerging strengths in materials for energy applications and for electronic devices.

Graduate students also join the department because of our longstanding relationships with government agencies like the Office of Naval Research, the National Institute of Standards and Technology, Department of Defense and Department of Energy national laboratories and corporations like Boeing or Alcoa. Thanks to the network of alumni we have established in these organizations, our students graduate with connections that their peers lack.

Graduates

The vast majority of the materials we encounter in the course of the day have been engineered to have specific properties that make the materials useful or valuable to us. As materials scientists and engineers, our goal is to understand how the arrangement of materials’ structures on a very fine scale translates into materials with properties that can benefit society.

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STATISTICAL SNAPSHOT

18 FACULTY
85 GRADUATE STUDENTS
120 UNDERGRADUATE STUDENTS

Owing to the major’s flexibility and technical rigor, Engineering Science students are better prepared to be change agents and to bridge disciplinary gaps.

Jill Ferguson, MSE ’17
2016 Truman Scholar

The department is both very supportive and collegial, and UVA Engineering is big enough to have critical areas of research expertise, yet small enough that I can make a difference. The students are very strong, and Charlottesville is a great place to live. I am sure I made the right decision to come here and look forward to contributing to the success of MSE and UVA Engineering in the future.

Elizabeth Opila, Ph.D.
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