

SCIENCE MATTERS

BUILDING FOR THE 21ST CENTURY



RANDOLPH
COLLEGE



TAKE2





FROM THE PRESIDENT

For generations, Randolph College has offered an exceptional educational experience in the liberal arts and sciences. Today, a significant revitalization of our current Martin Science Building is necessary.

In order to attract and retain the most academically talented students and to keep pace with the scientific advances that drive the curriculum in contemporary college science programs, we must have a building that reflects Randolph's rich history and the high academic caliber of our current endeavors.

Funding this project is currently our top priority. Programs that will benefit from these upgrades include biology, chemistry, physics and engineering, mathematics and computer science, environmental studies and sciences, and the Natural History and Archaeology Collections Project (NHACP).

Our needs include innovative and flexible classrooms and labs, faculty offices, dedicated student research spaces, and meeting spaces that will foster interdisciplinary work and collaboration among students and faculty.

I am proud to share with you this exciting project.

Sue Ott Rowlands
President



HISTORY

A PIONEER IN SCIENCE EDUCATION

In 1893, a time when American women were not widely educated in the sciences, Randolph-Macon Woman's College offered courses in physics, astronomy, chemistry, geology, biology, and mineralogy and provided a reference library, three laboratories, anatomical models, and collections of minerals, fossils, and rocks.

According to *The News* in 1898: "The equipment is as complete as may be found in the best colleges for men in any section of the country, and it will doubtless attract a number of young women who have been accustomed to go to more distant institutions for advanced work in science."

SETTING THE STANDARD IN SCIENCE EDUCATION

In 1916, R-MWC was the first women's college in the south to receive a Phi Beta Kappa charter. Martin Science Building, named for F. W. Martin, a science professor, opened in 1937 as a dedicated home for the study of science. R-MWC alumnae, trained not only in scientific principles but also in the liberal arts, were uniquely suited for the challenges of their day.

A COMMITMENT TO EXCELLENCE

Today, Randolph's student body is 61 percent female and 39 percent male. A remarkable 94 percent of Randolph's 53 full-time faculty members hold the highest possible degree in their fields. Randolph offers a rigorous liberal arts curriculum in small classes taught by engaged, caring professors.

NATIONAL RECOGNITION

In 2020, the National Science Foundation (NSF) awarded \$1 million to Randolph's Step Up to Physical Science and Engineering (SUPER) program to expand mental health and inclusion initiatives, with the goal of supporting student well-being and resilience. In 2013, Randolph was awarded a \$600,000 NSF grant to expand SUPER, and in 2016, a \$1 million NSF grant funded the program through 2021.

“Randolph’s science and math curriculum taught us to always ask more. This drive was woven through our course and laboratory work, and it is a philosophy that I used throughout my doctoral and postdoctoral studies, and in my career.”

Kathryn Colonna Worrilow '80, PhD
BIOLOGY
Founder and CEO,
LifeAire Systems, LLC



“Today’s interconnected global problems don’t exist in a vacuum, and neither does the College’s environmental science program. My education at the intersection of STEM and the liberal arts prepared me for the unique challenges faced while working at the World Bank and beyond.”

Karl Sakas '10, MBA
ENVIRONMENTAL STUDIES
Community Development Volunteer
Peace Corps

RANDOLPH TODAY

A GROWING DEMAND

Biology is the most popular major among Randolph students, and the number of students accepted to the College who are interested in the other sciences has grown dramatically in recent years. In response to this growing demand, Randolph recently added majors in computer science and marine science, plus minors in engineering, computer science, marine science, and chemical physics.

Opportunities for research exist even at the entry-level in Randolph's science courses. Students and professors regularly work together on special research projects, and all science students complete senior capstone projects.

CREATING TOMORROW'S SCIENTISTS

Randolph recruits top high school students for its unique

Step-Up to Physical Science and Engineering at Randolph (SUPER) program, which is funded by the National Science Foundation.

This honors program attracts high-quality students who plan to go into scientific careers.

SUPER offers a summer transition program, a living and learning community, enhanced tutoring and academic and wellness support, industry mentoring, annual seminars, enhanced internship and research opportunities, and a four-year career plan.

In addition, all students may apply to Randolph's Summer Research Program, a competitive, paid experience that pairs students one-on-one with faculty to study an area of interest. They present their findings and results at the end of the summer. Many students go on to publish their work in

scientific journals or present their research at scientific conferences.

Randolph is inspiring youth to engage in the sciences through Science & Art Saturdays for high school students and SciFest, hosted by the Society of Physics Students. SciFest is a weekend-long celebration of science in the spring that attracts over 3,500 attendees annually, and in 2018, the Lynchburg Regional Technology Council recognized SciFest with the Technology Program of the Year Award. In 2021, physics and engineering professor Peter Sheldon was named the Outstanding Chapter Advisor for the Society of Physics Students (SPS). And in 2022, Randolph's SPS chapter won an Outstanding Chapter Award, an honor given to fewer than 15 percent of chapters.



“Since 2011, Randolph’s Department of Physics and Engineering has tripled in numbers of students. After renovating our science building, we will be able to add an advanced physics and engineering laboratory space for our students to conduct laboratory experiments and independent research. The new maker space and machine shop will also benefit not only Randolph students, but also the community. This new space will enhance our outreach efforts, which include SciFest for elementary school students and Science & Art Saturdays for high school students. We have a stellar science program, and I am looking forward to being proud of a space that matches the level of study happening here. This new space will help us to attract talented students to the sciences at Randolph.”

Peter A. Sheldon

The Charles A. Dana Professor
and Chair of Physics and
Engineering



MARTIN SCIENCE BUILDING

Designed by architect Stanhope Johnson in the late 1930s, Martin Science Building is a well-known presence on campus. Although some interior updates were made in 1977 and 1993, the building's footprint remains the same. Currently housing the departments of biology, chemistry, mathematics, and physics, the five-story building is located prominently along the campus's beautiful and historic grounds. Recent analysis shows that while the "bones" of the building remain solid, Martin Science Building does not

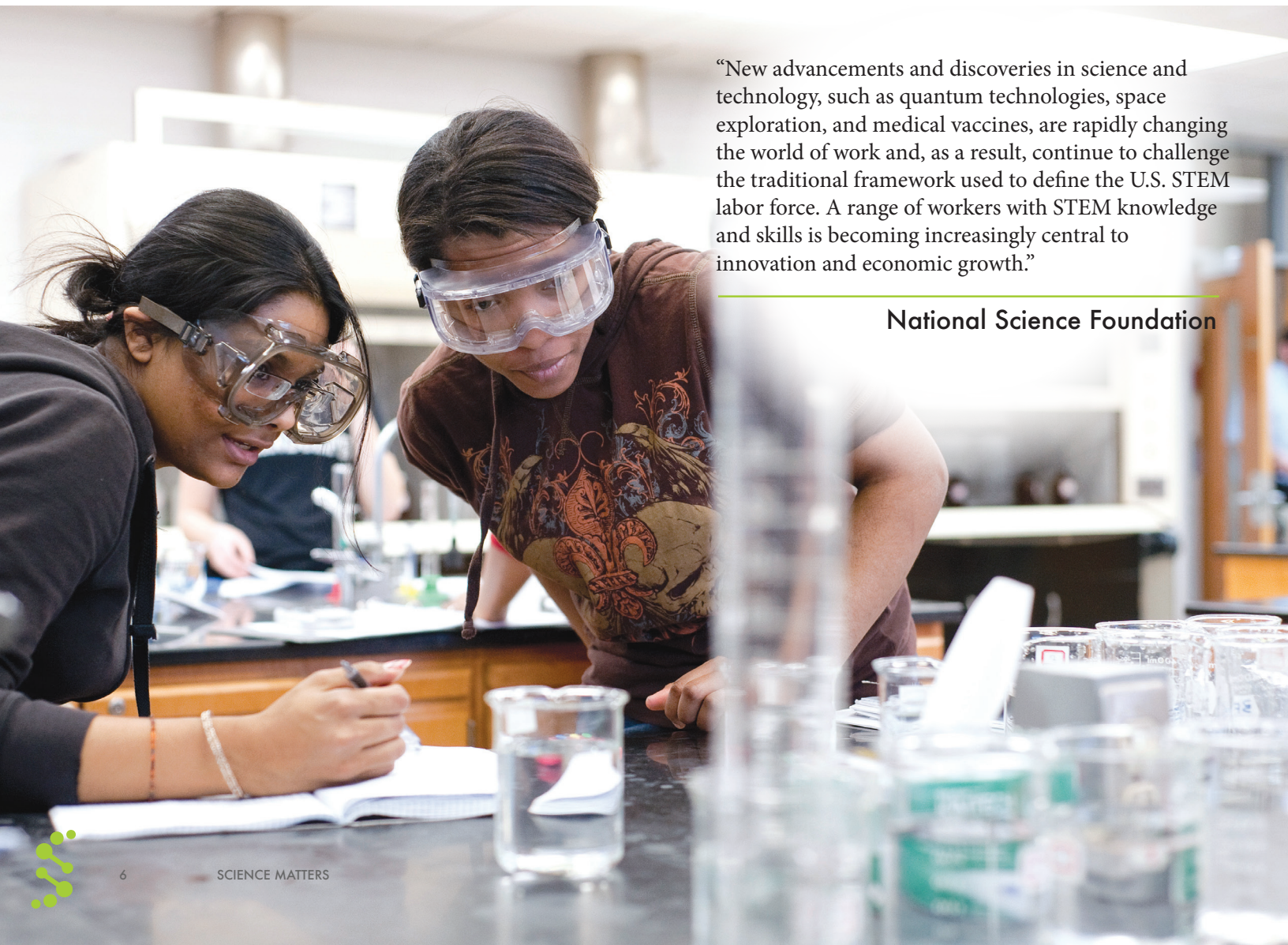
provide the technology or accessibility required by the increased demand for science courses.

TEACHING SCIENCE IN THE 21ST CENTURY

Modern science labs are designed for collaboration to allow for better communication during lectures or research. Professors, particularly in Randolph's small classes, use both lectures and demonstrations to teach. Technology and media are essential tools, as is in-class collaboration. Randolph's

liberal arts focus, combined with a strong STEM (Science, Technology, Engineering and Math) program, uniquely prepares students for dynamic careers.

Maker education, the process of learning through creativity, interdisciplinary concepts, and experimentation, are in high demand. In contrast to Martin's enclosed corridors, an ideal building design features light and open spaces that facilitate interaction between students and faculty.



“New advancements and discoveries in science and technology, such as quantum technologies, space exploration, and medical vaccines, are rapidly changing the world of work and, as a result, continue to challenge the traditional framework used to define the U.S. STEM labor force. A range of workers with STEM knowledge and skills is becoming increasingly central to innovation and economic growth.”

National Science Foundation



A COMMITMENT TO SUSTAINABILITY

In 2022, The Princeton Review once again ranked Randolph College among the top colleges and universities in the nation in its *Guide to Green Colleges*, which recognizes institutions that are committed to environmental sustainability.

Randolph College is a member of the Association for the Advancement of Sustainability in Higher Education (AASHE) and is proud to be the first Virginia signatory of the American College and University Presidents' Climate Commitment (ACUPCC). Randolph College will pursue LEED certification for the newly renovated Martin Science Building, signifying that the structure has improved energy efficiency systems and lower carbon emissions.

“The world’s big problems have no disciplinary boundaries, so your mind shouldn’t either. Studying environmental science in Randolph’s liberal arts program provides ideal preparation for working on solutions to society’s challenges. Our environmental program provides diverse research and field experience in and out of the classroom, much of it in citizen-science and community-based projects. Our students develop transferable knowledge and skills that prepare them professionally for the 21st century. We embody the conviction that to pursue lifework in the realm of the environment, you must grasp the complex interactions that characterize today’s most pressing environmental problems—and you have to get your hands dirty, literally and figuratively.”

Karin Warren

The Herzog Family Chair of Environmental Studies and Science



NEW DESIGN

Randolph's new science facility will accommodate growth in the demand for STEM programs, while allowing for the expansion of interdisciplinary programs and encouraging collaboration between faculty and students.

Investment in a newly renovated facility imparts to prospective and current students that Science Matters for everyone.

While primarily remaining true to its original architecture, the building will undergo an interior transformation, becoming a

welcoming, light-filled space that inspires communication, curiosity, discovery, and innovation.

Renovations will bring the building up to current standards, resulting in a building that is more comfortable and fully accessible, with better climate control, lighting, and campus integration. With the addition of the modern technological and scientific resources expected by today's faculty and students, the new facility will highlight Randolph's passion for the sciences.

Energy-efficient design reflects Randolph's dedication to campus-wide energy savings, fostering environmental responsibility, and integrating sustainability into academics. Access to the Dorothy Crandall Bliss Botanical Garden, used for research as well as reflection, offers new opportunities for continued engagement with this captivating space. Flexible classroom and meeting space will transform the existing facility into a revitalized hub of activity for the entire student body.



“I am grateful for the wonderful science education I received at Randolph. I discovered my passion for aerospace engineering at the College and my professors were amazing mentors. I had a lot of one-on-one experiences and research opportunities that let me engage in hands-on learning and gain a deep understanding of physics concepts. I am now beginning graduate studies in aerospace engineering as I continue to pursue my dream of working in the aerospace industry. I am interested in flight mechanics and controls or structural mechanics and materials. I can't wait to work on the design and development of aircraft and spacecraft, and my Randolph education is making all of this possible.”

Cristina Berenguer Llongueras '23

PHYSICS

Master's Candidate

Georgia Tech

Daniel Guggenheim School of Aerospace Engineering

PROJECT GOALS

PROMOTE and showcase excitement about STEM programs

PROVIDE forward-looking, flexible spaces for optimal teaching and learning

EXPAND interdisciplinary action and encourage collaboration

INCREASE informal learning spaces and focus on active learning classrooms

CREATE dynamic, open, inviting, and comfortable spaces with improved access to natural light

HIGHLIGHT a sustainable and high-performance building with reliable new systems

REIMAGINE spaces for these vital academic programs: Environmental Studies and Sciences, Biology, Chemistry, Physics and Engineering, Mathematics and Computer Science, Natural History and Archaeology Collections Project (NHACP)

FUNDRAISING PROGRESS

Current funding includes
\$16.2 million in gifts
and pledges, and
\$3.7 million in
historic tax credits



\$19.9M
CURRENT
FUNDING

\$3.1M REMAINING TO RAISE

\$23M GOAL



“When I started a PhD program, I was better prepared than my classmates because of the quality of my Randolph education. At Randolph, I had access to the latest instrumentation, and faculty engaged directly with students. I was encouraged to perform independent research, which became exciting opportunities for discovery. This excitement turned into a passion for discovery in the field of cancer research that has stayed with me all my life. The advances in science, particularly in cancer and human medical science, are occurring at a pace faster than ever before, and I certainly hope that our current and future Randolph scientists continue access to such opportunities. For all of these reasons, I decided to support this project. It is a worthwhile investment in the next generation of scientists.”

Elizabeth A. Grimm '71, PhD

CHEMISTRY

Professor Emerita, Department of Melanoma Medical Oncology
Research, Division of Cancer Medicine
The University of Texas MD Anderson Cancer Center



*Elizabeth A. Grimm, Ph.D.
Professor
Melanoma Medical Oncology*





VMDO Architects



“Since graduating from Randolph College with a degree in environmental studies, I have earned a master of science in public health. I currently work for the Nature Conservancy in Washington, D.C., where I educate the public about environmental issues and encourage their support. I am fascinated by the intersection of urban development with public health. My ultimate goal is to serve as a diplomat for my home country of Haiti and work to improve the environmental and public health issues they face.”

Jdody Misidor '21
ENVIRONMENTAL SCIENCE
Public Education Associate
The Nature Conservancy



SCIENCE MATTERS

At Randolph, we are preparing the scientists of tomorrow with a comprehensive liberal arts background. Our students graduate with science experience and an education that is transformational. Set in a historic building, our students and faculty accomplish great things every day.

To reach new levels of achievement, a revitalization of Martin Science Building is essential. Our students—the scientists of tomorrow—have chosen Randolph for the caliber of our academics and are eager to change the world. Let's show them what the future holds.

If you or someone you know may be interested in discussing this opportunity, please contact:

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