The Program

The Rodman Scholars Program is the honors program for the top 5% of each incoming class in the University of Virginia School of Engineering and Applied Science. For these 30 to 40 scholars, the program provides many opportunities to excel. Rodman benefits include priority course registration, academic seminars, exclusive networking opportunities, a Rodmans-only design course sequence, a study-abroad opportunity in Germany, first year housing in the recently completed Watson-Webb and Balz-Dobie residence halls, and a community of scholars that spans across years.

The First Year Experience

“Living together was something that can never be replaced, and taking the class together for a year was an amazing experience.”

Scholars agree that the first-year Rodman experience is a highlight of the program. Students develop a tight-knit community by living and working together, bonding through the Poplar Ridge ropes course (pictured right), and participating in council-sponsored study breaks, group dinners, and impromptu social events. In addition to the first-year living experience, scholars enroll in a two-semester series of design courses to develop engineering problem solving and analysis skills. Students learn about the engineering design process and analysis through a series of group projects, which culminate in an open-ended semester-long group project. Rodman Scholars learn early how to work with their peers, present information, and use time-tested engineering practices to achieve their goals.

The most valuable part about the Rodman program for me was the small classes first year with only Rodman students, allowing us to get more accustomed to college and have a close group of people to work with and know for later classes.

The Academics

“The classes 1st-Year, especially the Engineering Design courses, and the Global Ingenuity summer program, were uniquely geared towards learning by doing.”

In addition to two required first year design courses, Rodmans have exclusive access to Rodman Seminars, which are one-credit pass/fail courses on a variety of subjects. The broad range of offering allows Scholars to explore topics that fall outside a traditional engineering curriculum. This year, course offerings included a book club, creative digital photography, personal finance, engineering art, “History and Strategy”, and RodSquad, a student-run home energy audit team. The spring also featured the ever-popular Science and Art of Beer Brewing seminar for the 21-year-old Scholars.

Rodmans also receive priority course registration for all engineering school classes after the first semester. This allows Scholars to register before other students in their year, and helps younger students gain access to higher level classes and optimal class times.
The Community

“The community, though diverse in interests, is immensely supportive and close-knit.”

The Rodman Community, though undoubtably strongest during the first year, perpetuates into all four years of school. Rodman Council plans events to bring Rodmans together, student advising helps first years bond with upperclassmen, and Rodman Seminars provide an opportunity for scholars to re-unite in a low-stress class setting.

RodFest returned to the calendar of events this year after a two-year hiatus. On a crisp fall day, Rodmans flocked to Program Director Dana Elzey’s home for an evening of food, friends, games, summer stories, and stargazing (pictured left).

The Opportunities

Old Scholarship
Through the generosity of Jonathan Old, the Old Education Abroad Scholarship was offered to encourage and enable increased participation in international programs among Rodman Scholars, including J-term and summer experiences, research internships, and team projects. In the first year of the program, seven proposals were funded. Biomedical Engineering students Suna Sumer ('12) and Liz Dobrenz ('13) used the grant to fund a 10-day January Term class to learn about public health in Guatemala (pictured right).

Global Ingenuity 21: Study Abroad in Germany
Through a partnership with Volkswagen, Rodman Scholars participated in the Global Ingenuity 21 program in Germany. Participants joined a group of engineering students at the Technical University of Braunschweig on an engineering design project, and in only nine days developed a design solution and made a final presentation. Germany is a country with a rich history of technological innovation, from Diesel to Benz to Hoffman. While in Germany, students made excursions to Dresden and Berlin, deepening students’ knowledge and experience of Germany’s culture, history, architecture and way of life. By visiting and working at industry sites such as the VW Wolfsburg Plant, living on the campus of a technical university, and socializing with German students, students gained a more immersive understanding of German design. Entering the program as an ambassador for UVa and country, students left the program more qualified for future international experiences.

First Year Research Grants
First year Rodman Scholars may apply for research grants at the end of their first year. These grants fund student-led projects, and were used this year to continue an ENGR 1420 project, support summer biomedical research, and more.
The Numbers

The Class of 2015

Class Rank

Rodman Scholars represent the top 5-7% of the incoming class, and are selected based on academic prowess, among other factors. The 32 members of the Class of 2015 are no exception to this rule, and boast exceptional class ranks and higher than average SAT scores. Of the 17 scholars who were ranked in high school, there were 13 scholars in the top 2% of their class and 7 valedictorians. All 17 ranked students were in the top 4% of their high school class.

Majors

Rodman Scholars select a variety of majors, although Computer Science/Computer Engineering, Biomedical Engineering, and Systems Engineering are generally the most popular (Class of 2011 depicted above). Scholars also pursue interests outside their major; in the class of 2011, 62% of scholars pursued an additional minor and 29% pursued an additional major.

Class of 2015

Average SAT Scores

For the 29 members of the class who reported SAT scores, Rodman Scholars outperformed their School of Engineering and Applied Sciences peers by 59 points in the verbal section and 52 points in mathematics. 12 scholars earned a perfect score of 800 points on the mathematics section.

U.Va. Final Overall GPA

Rodman Scholars continue their high school academic success in their studies at U.Va. 47% of the Class of 2011 graduated with a GPA over 3.75 out of 4.0 (depicted left), the average GPA for the class was 3.67, and 87% of the class graduated “with distinction” or with higher honors.
Rodman Hometowns

Rodmans hail from 5 countries and every major U.S. region. The ratio of in-state students to out-of-state students is 2:1 for the classes of 2012-2015, which is representative of The University at-large.

International

- China: 8
- Turkey: 1
- India: 2
- Thailand: 1

Rodman Involvement

As a whole, the Rodman community touches over a hundred different organizations or programs across grounds. Some Scholars engage in several organizations, while others participate in a select few. There is no requirement regarding extracurricular involvement, however the program is designed to encourage scholars to pursue and develop any interest they may have.

Bringing the numbers to life

one Rodman Scholar says...

“Having classes with, and otherwise meeting, people with such diverse and interesting backgrounds & talents who are so uniformly brilliant and friendly has been an incredible experience.”
Rodman Scholars represent a variety of background, interests, and passions within and outside of engineering. Scholars engage in ground-breaking biomedical research, plan international service trips, intern at top companies like Microsoft, study abroad, lead clubs like Virginia Baja Racing, and participate in sports teams like wushu and triathlon club. There is no typical Rodman Scholar; each Scholar creates his or her own U.Va. engineering experience. The stories on these pages represent 7 of these experiences.

Hannah Meredith’s (Biomedical Engineering ’12) research has brought her success from a microscopic to an astronomical scale. This past fall Hannah was first University of Virginia student to receive the Astronaut Scholarship, a $10,000 award for exemplary research. Not only is Hannah the editor-in-chief of The Spectra: The Virginia Undergraduate Engineering and Science Research Journal, she is also an integral member of Dr. Helmke’s biomedical research lab, where she is “designing a lab-on-a-chip assay to study amoeba motility as a way to diagnose people infected by amoeba from polluted water sources.” Amoebas are a leading cause of gastrointestinal disease in developing countries, making Hannah’s work important for people worldwide.

Colvin Wang (Chemical Engineering, Physics ’14) greatly appreciates a challenge, be it in a class for one of his double majors or two minors, or at a wushu, a form of Chinese martial arts, competition.

What started as a fun childhood activity for Colvin has grown over the past 13 years into extensive travel and competitive success around the world, including a silver medal at the 2009 Wushu World Championships. “We had some of the most unforgettable, eye-opening, and fun experiences together,” says Colvin of the 2008 USA Junior Wushu team. That year the team competed in Bali, Indonesia, a place Colvin describes as “stunningly beautiful.” And although Colvin has perhaps an even greater competitive wushu career ahead of him, he has recently turned to coaching in order to give back to the community he loves. “Having stuck with wushu for so long,” says Colvin, “[it] undeniably colors much of my vivid childhood and young adult life, and played a huge role in my development as a person.”

Tristan Jones (Biomedical Engineering ’14) studied in Madrid and Universidad Carlos III in Leganeswas during the fall of his second year. There, he enrolled in two engineering classes and two Spanish language classes. Tristan knew from day one that he wanted to incorporate a semester abroad into his studies at U.Va., so he planned his courses at U.Va. carefully around his goal. Tristan enjoyed the opportunity to meet people from across the United States and from Spain, and loved traveling to different European cities. He was able to see London, Paris, Amsterdam, Prague, Lisbon, Barcelona, Granada and Valencia, each for a two to three day trip.
Alex Pawlowski is the Webmaster for the Virginia Triathlon Team and competed this past April in the USAT Collegiate Nationals in Tuscaloosa, Alabama. He decided before entering college that he wanted to compete in triathlons, a sport that would continuously challenge him and give him a chance to be competitive among his peers. In his school search he actively looked for a school with a Baja Racing Team and a triathlon presence with a chance to compete on a collegiate club team. The Triathlon Team at U.Va stood out as the perfect place to train and to compete; the decision was clear. When he crossed the finish line of his first triathlon, he knew that he had stumbled upon the perfect sport.

Matthew Hurtz (Computer Science ’13) was a Microsoft software development intern in summer 2011, working on Project Web Access, a part of the Microsoft Office suite that will allow multi-person access to databases. During the school year, Matthew and a fellow Rodman Charles Eckman (Computer Engineering ’14) research augmented reality, for which they received last year’s Rodman First Year Research Grant. Through their research they hope to “create a wearable computer system that allows the user to utilize the basic functions of a smart phone without the need to look at a device.” Matthew hopes his research will be part of a new era of computer science, where “we’ll see the barriers of interacting with a computer break down.”

Sarah Hansen (Biomedical Engineering ’15) pictured left with her sister, came to U.Va. and hit the ground running. Sarah quickly joined the Women’s Club Ultimate Frisbee, the Society of Women Engineers, The Spectra: The Virginia Undergraduate Engineering and Science Research Journal, and a biomedical engineering research lab that focuses on biomolecular and genetic engineering.

Through annual trips to Nicaragua, UVA’s chapter of Engineering Students Without Borders (ESWB) has developed a long-standing relationship with the nonprofit Bridges to Community, one that Tyler Slack (Systems Engineering ’13) has been a part of since the beginning. With funding from a Jefferson Public Citizens grant, Tyler and six other UVA students, including Rodman Scholars David Griggs and LeeAnn Li, completed a Photovoice project in a small rural community to learn more about the regional public health and sanitation problems. In addition to Nicaragua, Tyler has also visited Caribbean Islands through Semester at Sea. “Although Nicaragua was amazing,” says Tyler, “it’s impossible to beat Trinidad and Tobago…the place is absolutely beautiful.”

“People in the program are so great. We’re all really interesting people, and we all like doing cool things... the most valuable thing about the program is definitely the community.”
Rodman Program History

On October 25, 1978, the proposal to establish the Rodman Scholars Program was unanimously passed by the faculty. The program was to be called the Rodman Scholars Program, after Professor W. Sheldon Rodman, who had served as an outstanding professor in the School of Engineering and Applied Sciences. In the fall of 1979, the first class of Rodman Scholars entered the University.

This new program differed drastically from the original Honors Program. It affected a student’s first two academic years and did not include an independent study. The new program would be a way of attracting students to the University, and included special courses reserved solely for those students in the program, along with a recommendation to house the students in the same dorms with the Echols Scholars, the honors program of the College of Arts and Sciences.

Since its founding, the Rodman Scholars Program has seen tremendous growth and an ever-changing vision directed at creating the engineering leaders of tomorrow. The program has increased its commitment to a strong sense of Rodman community, rather than a solely academic focus. Over time, the Rodman Scholars Program has evolved from its humble beginnings into a strong program dedicated to the development of engineering leaders.

In recent years, the program has developed into a student run organization shaped by the leadership of the Rodman Council. Rodman Council has grown from simply a President of the program into an organization of students across the years and majors focused on growing the program and providing new opportunities for Rodman Scholars. As we move forward, we are continuing to shape our vision and the defining characteristics of Rodman Scholars.

To Our Alumni

With over 700 alumni there is a wealth of knowledge and experience accumulated over the years, and we hope that alumni will keep in touch to help us shape the future of the Rodman Program. With this in mind, please let us know anytime that you make your way back to Charlottesville. We want to hear about what you are doing now and about your experiences while at UVa. We welcome presentations to our current scholars about your business, your research, or any other defining moments of your life. If you would simply like to get lunch with a scholar and catch up on the program, we would also love to set up that opportunity! Please e-mail rodmanscholars@virginia.edu to contact the Rodman Council Presidents directly--we hope to hear from you!