The Universities at Shady Grove

Biomedical Sciences and Engineering Education Facility
Leadership Message

We’ve all read the news reports: the growth of highly skilled jobs in Montgomery County continues to outpace available candidates in the region. It’s a trend that businesses and other employers understand all too well.

Since its founding in 2000, the Universities at Shady Grove (USG) has been in the forefront of creating educational and economic opportunities for residents of Montgomery County and its surrounding region. By providing a high-quality, accessible, and affordable pathway to achieving a bachelor’s degree, our goal has always been to have the best and most lasting impact on Montgomery County and its residents in a way that directly supports the growth of our region’s knowledge-based economy.

Our commitment to these goals continues today with a renewed sense of urgency and opportunity — especially in the fields of science, technology, engineering, math, and medical sciences (STEMM). Consider, for instance: in the next quarter century, **25 percent of nationwide job growth is projected to be in health, healthcare delivery, and the biosciences.** And — closer to home — there are currently **3.4 STEMM jobs in Maryland available for every one unemployed person** compared with one non-STEMM job available for every two unemployed people.

USG’s new Biomedical Sciences and Engineering Education Facility will help bridge the gap. When the state-of-the-art facility opens in 2018, it will serve thousands of additional students in STEMM programs. The students who learn in the facility’s labs and advance their education in the new building will be the same men and women who staff the professional labs, research centers, and medical facilities of this region for years to come.

Far more than a building, the Biomedical Sciences and Engineering Education Facility represents a collaboration of government, business, and education that will move this region forward in new and exciting ways. That’s why, from its inception, USG has had the support of business and political leaders as well as the leadership of the University System of Maryland.

Join our forward-thinking community by investing in the future of our residents and our region.

Thank you,

John Sackett
THE STATE OF STEMM EDUCATION IN MARYLAND

In the economic engine of Montgomery County, where the growth of highly skilled jobs is outpacing available candidates, it is more critical than ever that we provide pathways to the degrees and careers that will directly power tomorrow’s workforce. That means preparing students for successful and rewarding careers in the region’s most high-demand fields — science, technology, engineering, math, and medical sciences — and, in turn, helping to fuel economic development in Montgomery County and beyond. Together, we can make this happen.

1,650+

More than 1,650 of the region’s employers have looked to USG for hiring needs, and businesses like Adventist Healthcare, Marriott International, and Lockheed Martin collaborate with USG to nurture a steady pipeline of career-ready graduates.

WHERE WE ARE NOW

USG experienced 60.5 percent enrollment growth between fall 2007 and 2011, with the number of students increasing from 2,519 to 4,042.

According to the U.S. Chamber of Commerce Foundation, Maryland leads the country in academic research and development and has the third highest concentration of high-tech businesses in the nation.

WHERE WE ARE GOING

The Biomedical Sciences and Engineering Education Facility will increase USG’s capacity to accommodate new students and new programs, almost doubling its size.

By 2017, there is a projected demand for nearly 117,000 new workers in Montgomery County to fill new or vacated positions. Despite this demand, there is an expected shortage of qualified workers to fill the region’s wide range of occupations.

WHERE WE WILL BE

in 2018 and Beyond

Maryland’s ninth place ranking in predicted 10-year STEMM job growth shows it will continue to be a leader in these fields for years to come.
Breaking New Ground in Higher Education

In 2016, the University System of Maryland will break ground on a new Biomedical Sciences and Engineering Education Facility at USG. The facility, which has received strong support from the state of Maryland and Montgomery County, has been designed to meet the specific economic needs of this region, while expanding degree offerings in baccalaureate, professional and advanced graduate degrees in healthcare, biosciences, engineering, and computational science disciplines.

Our state has always placed an emphasis on education and workforce development. That emphasis has served our students, residents, and the companies based here quite well — but data show us the emphasis must continue — especially in science and technology, engineering, and math.”

ANTONIO MOREIRA PH.D.  
Vice Provost for Academic Affairs, UMBC

The new facility will be one of the most sustainably sourced and built laboratory buildings in the country. It will provide:

- State-of-the-art teaching laboratories
- Collaborative learning spaces
- Clinical training facilities
- Academic offices
- Expanded student services necessary to support program and enrollment growth

The 220,000-square-foot project, which will be USG’s fourth academic building, designed by the nationally renowned architectural firm Cooper Carry and its partner Lake/Flato represents a major milestone for the growing campus. The campus expansion also includes a green parking garage and new entrance for the campus, both recently completed thanks to generous funding by Montgomery County. The new academic building, the centerpiece of the project, is scheduled to open in 2018.

The new facility will be located adjacent to the University of Maryland’s Institute for Bioscience and Biotechnology Research, on the USG campus. The facility will provide students access to the latest research to support their studies, and allow commercial and research partnerships to flourish in the region.
Opening Doors

USG’s pioneering approach makes believing in, staying in, and graduating from college a reality for students like Annais Zarate. A native of Mexico who grew up in Rockville, Annais was labeled “at risk” and actually dropped out of high school for a time. Yet, in spite of the many hardships she and her family faced, Annais went on to be the first in her family to attend — and graduate from — college. She credits a smooth transition from Montgomery College to the University of Maryland, College Park at USG — where she was a 4.0 student — with her success both academically and professionally. Today, she is among an impressive 90 percent of students who earned a degree on the USG campus and are working in the region in their intended career field. In her words:

The University of Maryland, College Park’s Biological Sciences program at USG opened many doors for me — providing professors genuinely interested in helping all students succeed and a challenging curriculum that prepared me to excel in laboratory settings crucial to my future in biomedical research. As a volunteer at the Institute for Bioscience and Biotechnology Research (IBBR), I carried out experiments to determine the pathways for Alzheimer’s pathology and the efficacy of the drugs we are developing to prevent it. That led not only to an IBBR internship but to a full-time job with another local company. From someone who thought college would never be achievable, I will forever be grateful for the opportunities given to me to realize my dreams.”

ANNAIS ZARATE ’14  
University of Maryland, College Park  
Biological Sciences
The Case for Support

In a relatively short amount of time, USG has established itself as a dynamic solution to Maryland's current and future workforce needs, as well as the nation's pursuit of more accessible and affordable higher education options. USG is a recognized leader in economic and workforce preparation for Montgomery County and the greater region.

WHO BENEFITS?
The new Biomedical Sciences and Engineering Education Facility will benefit our students, Montgomery County, the state of Maryland, regional businesses and employers, and our nine partner universities ( Bowie State University; Salisbury University; Towson University; University of Baltimore; University of Maryland, Baltimore; UMBC; University of Maryland, College Park; University of Maryland Eastern Shore; and University of Maryland University College).

OUR IMPACT
USG's innovative and pioneering partnership approach to higher education prepares and connects the region's college graduates with career opportunities right here at home. Simply put: that's good for the students, good for employers, and good for the economy.

WHY INVEST IN USG?
The growth of highly skilled jobs in Montgomery County—from bioengineering to translational life sciences to cybersecurity—continues to outpace available candidates in the region. If Montgomery County wants to maintain its position as an economic driver within the state, it must invest purposefully in pathways to higher education for the region's student population that will power tomorrow's workforce.

By expanding and broadening opportunities at USG, in the heart of Maryland's largest and most diverse region, the potential for advancing economic development, innovation, and personal achievements can be limitless.
ABOUT THE UNIVERSITIES AT SHADY GROVE

The Universities at Shady Grove (USG) is part of the University System of Maryland, and the partner campus of nine top public universities in Maryland, all of which share in the mission of creating educational and economic opportunities for the residents of Montgomery County and the surrounding region. By aligning with partner universities, the regional school system, business, and government, USG offers the best of Maryland’s public higher education in one central 50-acre campus.

Students who successfully complete their coursework on the USG campus graduate with a degree from one of nine public universities:

![Logos of partner universities]

Each university has a long and distinguished history in higher education — and brings some of its top programs and faculty to students at USG.

Since its beginning in 2000, USG has grown its initial offering from 14 undergraduate degree programs to more than 80 upper-level undergraduate and graduate degree and certificate programs — coupled with a full-range of student support services — reflecting the current demands and needs of the regional economy. USG, in partnership with key industry and business leaders, routinely researches economic trends and workforce projections specific to Montgomery County to create an ever-evolving set of degree offerings that best reflect the real economic needs of the region.
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We’re looking to attract top talent to our company. The Universities at Shady Grove provides just that. Yet many people don’t realize the critical role it plays in preparing students for the workforce. I like to think of it as the crown jewel in Montgomery County. A well-kept secret, perhaps. But not for long.”

DANIEL J. ABDUN-NABI
President and Chief Executive Officer, Emergent BioSolutions