

preptalk*i*

Advice for Montgomery County Parents and Students on College Preparation • Fall 2019

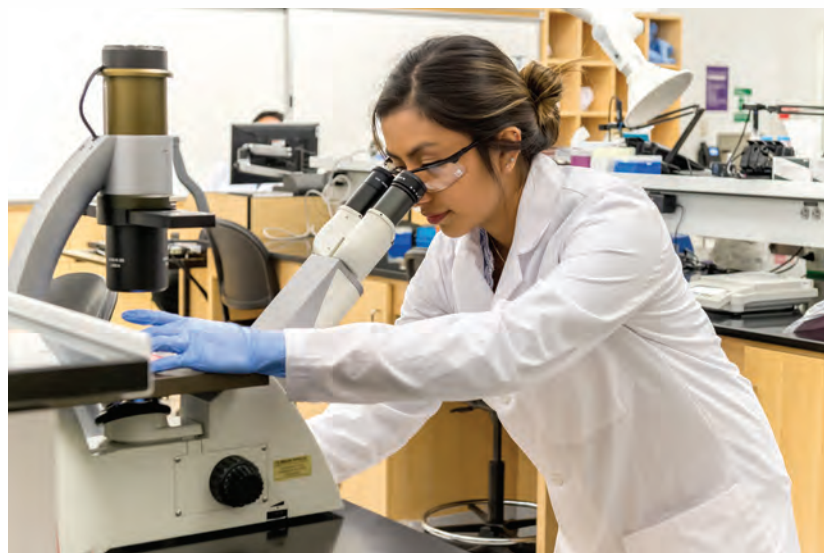
Translational Life Science Technology Program

“STEM-interested students who want to be a doctor so they can heal individuals should also consider a career in which they can provide life-saving solutions for an entire society,” says University of Maryland, Baltimore County’s (UMBC) Associate Dean Dr. Annica Wayman.

Dr. Wayman leads the new translational life science technology (TLST) program, developed by Montgomery College and UMBC and offered at the Universities at Shady Grove (USG). The degree combines traditional life science theory with hands-on, real-world applications of the process for turning scientific discoveries into life-saving solutions. The two programs will help fill a gap of more than 40,000 unfilled biotechnology jobs in Maryland.

Students start at Montgomery College’s state-of-the-art Bioscience Education Center on the Germantown Campus. They can earn an associate’s degree in biotechnology learning valuable industry-based skills such as cell culture, protein assays, DNA and RNA purification, gel electrophoresis, protein purification, PCR (polymerase chain reaction), and the basics of working in an FDA-regulated environment (GLP and cGMP). On completing the AAS, MC students can directly enter the biotech workforce or continue to UMBC’s TLST program to complete a four-year degree.

Students then complete a bachelor of science degree from UMBC. This program teaches the fundamentals of biochemistry, cell biology, epidemiology, statistics, lab instrumentation, and biochemical engineering. It also gives students opportunities to develop sought-after skills such as analytical thinking, teamwork, and data evaluation.



Jackelyn Flores '19, now in the TLST program at UMBC, looks at skin cancer cells in her Applied Cell Biology class.

Dr. Collins Jones, a biotechnology professor at Montgomery College, says the TLST program builds on the groundwork the College provides. “This program affords students an excellent overview of 21st century biomedicine and teaches them to think analytically,” says Jones.

Jackelyn Flores, a Quince Orchard High School graduate who started as a biotechnology major at MC and is now enrolled in TLST, says both programs have helped her. Flores, who works full time in the cell therapy department at Lonza, a biotech company in Frederick, says, “MC provided the foundation of knowledge and skills that enabled me to get a job—and advance in my career. The TLST program is expanding my critical thinking skills and exposing me to areas like bioinformatics and statistics. Students in this program also get to connect with industry professionals and tour innovative facilities.”

For more information on the biotechnology program at MC, visit montgomerycollege.edu/academics/programs/biotechnology.

For more information on the TLST program at UMBC at USG, visit shadygrove.umbc.edu/tlst



Is an engineering class music to your ears?

Take a class with Palma Catravas, an electrical engineer who is also a classically trained pianist. Her technical experience includes work in the areas of radiation-based electron beam diagnostics, plasma-based accelerators, and microwaves at Lawrence Berkeley National Laboratory—and during her graduate studies in electrical engineering at MIT. Her teaching interests also focus on nanoscale microscopy, including scanning electron and atomic force microscopy.

She fused her engineering and artistic interests and holds a patent on a signal processing technique derived from music visualization and musical acoustics.

"Keeping up one's artistic pursuits while majoring in science and engineering is worthwhile," says Catravas. "There are ways that the two interests can cross-fertilize."

She has also remained active as a chamber musician. A duo-piano recital with her brother, Nicolas, was broadcast on WMHT's "No Ticket Required." She was also a guest performer with the Musicians of Ma'alwyck.

"I am extremely impressed by the caliber, dedication, and preparation of MC students, and my respect grows each time I learn about their unique paths and experiences," she says.

Dual Enrollment Offers Flexibility—and Valuable Credits

Last summer, Nestor Aranibar, a rising senior at Richard Montgomery High School student, took four Montgomery College courses while interning for the ambassador of Bolivia at the United Nations in New York City. "I lived with my mom's friend, whose home was an hour and a half from the city. I took online classes and did my homework on the train," says Aranibar.

Montgomery College's Dual Enrollment program allows MCPS students the flexibility to register and attend a Montgomery College course(s) on campus, online, or at their high school site. Students engage with outstanding professors and their peers in a collegiate classroom setting.

In turn, students graduate from high school with earned college credit, potentially saving money on college tuition. They accelerate college completion, and in addition, receive the skills and confidence needed to succeed in college.

One student who will leave MC in spring 2020 with newfound self-assurance—as well as an associate's degree and high school diploma—is Northwood High School senior Samia Abdallah. Though initially reticent

about the commitment, she enrolled in the Middle College program, offered at Northwood and Northwest High Schools. "I absolutely love my MC classes," she says. "You have so much room for growth and exploration."

Students may enroll in a variety of courses at the College, provided they meet the Dual Enrollment standards. The credits earned may be applied to a degree program at Montgomery College or may potentially be transferred to another institution.

Abdallah, who is applying to dozens of four-year schools, hopes to transfer her credits to one of her top five choices: University of Maryland, George Washington University, American University, Georgetown University or University of Maryland, Baltimore County. Nestor Aranibar plans to be 12 credits ahead at one of the five schools he has applied to: University of Chicago, Georgetown University, St. John's College in Annapolis, SciencesPo (Paris), and the University of Amsterdam.

For more information on Dual Enrollment options, visit montgomerycollege.edu/dual-enrollment.

Naviance—a Tool for Career and College Preparation

Montgomery County Public Schools offers a website that provide students, as well as their parents and guardians, with information about college and career preparation.

Naviance is a web-based program that supports students in exploring and developing their postsecondary plans. It addresses four key areas of college and career readiness:

Self-Discovery: "Who Am I?"

Students find college and career pathways that are right for them.

Career Exploration: "What Do I Want To Be?"

Students realize their strengths, goals, skills, knowledge, and interests to help them make better academic decisions.

Academic Planning: "How Will I Get There?"

Students connect academic achievement with long-term goals.

College and Career Preparation: "Will I Be Successful?"

Students research and compare colleges and universities, explore and apply to scholarship opportunities, and track the status of transcripts and letters of recommendations.

Parents and guardians may create their own Naviance accounts, linked to their child's account, and can access the platform at any time.

montgomeryschoolsmd.org/career-readiness/naviance-family-connection.aspx.

Montgomery Scholar Cultivates Success Inside the Classroom—and Out

“Montgomery College, particularly this program, was my first choice,” says Elise Evans, a Poolesville High School graduate who is a second-year student in the Montgomery Scholars honors program.

Montgomery Scholars launch their college studies at a fraction of the cost of most four-year schools. The College awards merit scholarships to each student admitted into the Scholars program.

“At first, the program is hard,” Evans says. “You’re writing a paper a week—and you have to learn to transition to college-level writing. But I’m confident I’m a better writer because of it.”

Evans says the first year prepared her for the 20-page capstone project she will be preparing as part of the program. The capstone project emphasizes independent research and public speaking, culminating in a Scholars Colloquium. Evans is writing her paper on alienation in technology in the workplace. “We’ve got to prevent burnout in the workplace and make computer science a less stressful career,” says Evans. The goal of the capstone program is to encourage students to think critically, independently, and globally.

Evans enjoyed the Scholars trip to Warren Wilson College in Asheville, North Carolina, to participate in the Swannanoa Gathering (a music festival), as well as cultural and service learning activities. And she says the Philosophy Cafés, offered once a month, provided a forum for thinking about different questions on a global scale. “It’s interesting to get a perspective of someone who is from another culture—even another country,” she says.

This heightened worldview prompted her to form the Student/Farmworker Alliance Club on the Rockville Campus. The club is an offshoot of a national network of students and youth that campaigns for the improvement of working conditions in the agricultural fields of the United States. “We’re only a group of six,” says Evans, “but we’re trying to raise funds.”

When Evans is not on campus, she works 15 to 20 hours a week as a hostess at a restaurant to raise funds to pay for her books—and help pay the rest of her tuition at a four-year school. She wants to transfer to St. Mary’s College of Maryland and someday work in technology education. She also enjoys doing digital artwork and painting in acrylics.

Elise Evans, a Montgomery Scholar who went to Poolesville High School, says she has enjoyed all her Montgomery College professors. Evans says that she never imagined going to a professor’s office hours, but when she did, she got a lot of help and guidance on her writing assignments.



DID YOU KNOW ?

Academic support centers

are on all three campuses—and at your fingertips.

Data shows students who use the Learning Centers are more successful than those who do not. To that end, Montgomery College offers a variety of services and supports through our discipline-specific Learning Centers to help you meet the rigors of academic coursework.

We help you with tutoring, graphic calculator loan program, study group areas, textbook loans, MC-provided computers and software, and much more.

We have Learning Centers in business, math, science, humanities and social sciences, and writing, reading, and world languages on all three campuses. In addition, we have Digital Learning Centers on two campuses—and you can get virtual tutoring no matter where you are.

Visit montgomerycollege.edu/academics/support/learning-centers/ for more information.



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MONTGOMERY COLLEGE

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IMPORTANT dates and deadlines 2019-2020

December

- Visit the FAFSA website, apply for Federal Student Aid PIN (personal identification number) at pin.ed.gov, which will allow you to electronically apply for your federal student aid and access your U.S. Department of Education record each year.
- Start researching summer internships and jobs related to your career interests.
- Watch for early admissions notices.
- Develop a college application resume to highlight your activities, achievements, etc.
- Organize scholarships, certificates, articles, etc. to illustrate your achievements and create a portfolio to display them.

January

- Sign up for the ACT test by Jan. 10; test will be administered Feb. 8.
- Complete any applications not already due.
- Encourage your parents to gather their tax documents early—tax information is required to complete the FAFSA.
- Check college deadlines for the FAFSA and CSS/Financial Aid Profile—one or both may be required in February or even earlier.
- Remember to look for your Student Aid Report, which will arrive in seven to 10 days when submitted electronically.
- Keep a watch out for scholarship applications and make notes of the deadlines. Getting an early start completing them.

February

- Sign up for the SAT test by Feb. 14; test will be administered March 4.
- Sign up for the ACT test by Feb. 28; test will be administered April 4.
- File the free FAFSA now—some colleges have a February deadline. FAFSA.ed.gov

March

- March 1 is the state FAFSA deadline. List at least one Maryland college on the FAFSA.
- March 1 is the priority deadline for fall 2020 financial aid at Montgomery College.
- Sign up for the ACT test by March 8; test will be administered April 13.
- Dual Enrollment Information Sessions: March 3 at 7 p.m. in Cultural Arts Center at Takoma Park/Silver Spring Campus. March 10 at 7 p.m. in Globe Hall at Germantown Campus. March 16 and 31 at 7 p.m. in Parilla at Rockville Campus.
- Submit tax forms to college financial aid offices, if they are requested.
- If considering Montgomery College, prepare for fall registration.
- Decision letters from colleges begin to arrive.
- Visit colleges again if you are undecided about which one to choose.
- To transfer from a community college to a Maryland four-year college, you can use ARTSYS to help plan your coursework—artweb.USMD.edu

April

- Sign up for the SAT test by April 13; test will be administered May 4.
- Compare your offers of admission and financial aid; discuss them with family and counselors.
- Research housing choices and meal plans at colleges.

Source: mhec.state.md.us