Early College Information Session

Associate of Applied Science, Cybersecurity
Associate of Arts, Computer Science and Technologies

Globe Hall – High Technology and Science Center
October 8, 2019
Early College (EC) at Montgomery College

- MCPS and Montgomery College (MC) collaboration which provides the opportunity for students from multiple high schools to complete their high school graduation requirements on an MC campus and begin their college career.

- MCPS students will complete their Maryland State high school diploma requirements while simultaneously earning an Associate in Science or a Associate of Arts degree from Montgomery College.

- Early College students will take their first year of college classes together as a cohort. In the second year in the program, students will continue to take most of their classes with the Early College cohort, however, may also take elective courses with other MC students.

- The students will not take any classes at the high school. They will be fulltime college students taking all of the coursework for the 11th and 12 grade years on the MC campus.

- The MC A.A., A.S., A.A.S and A.A.T. degrees earned will transfer to a four-year institution within the state of Maryland and provide an opportunity for Montgomery County to support current students while building a future workforce. By creating a pathway from MCPS, to MC, to a bachelor’s degree, and then back to the Montgomery County workforce.
Assumptions & Admission Requirements

**Assumptions**

- Students have met or are near completion of fulfilling their SSL hours.

- Students have successfully completed all 9th and 10th grade classes as outlined on the degree pathways including P.E.

- Students must earn grades of “C” or higher in their college classes in order to maintain eligibility to remain in the program. Grades of “C” or better are crucial as this may affect transferability of credits, students ability to receive future federal financial aid and satisfying prerequisites for future college classes.

- With the help of their Early College Coordinator, students will research transfer opportunities to determine appropriate admission application process and transferability of their credits.

**Admission Requirements**

- Students have taken their mathematics and English state assessments.

- Have an unweighted MCPS cumulative G.P.A. of 2.75 or higher at the end of 10th grade.

- Complete the MCPS Application, the MCPS Early College Application and the Montgomery College Admissions Application.

- Participate in the Summer Transition program: Monday-Friday, 9 a.m.-noon, **July 6 through July 31, 2020** on the Germantown Campus.

- Meet assessments into individual Early College programs.
A.A.S. in Cybersecurity
Early College Degree Program
## Examples of A.A.S. in Cybersecurity Transfer Opportunities

<table>
<thead>
<tr>
<th>Institution</th>
<th>A.A.S. in Cybersecurity</th>
<th>B.S. Degree in Cybersecurity</th>
<th>View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowie State University, MD</td>
<td>A.A.S. in Cybersecurity</td>
<td>B.S. in Computer Technology</td>
<td></td>
</tr>
<tr>
<td>Capitol Technology University, MD</td>
<td>A.A.S. in Cybersecurity</td>
<td>B.S. in Cyber and Information Security</td>
<td></td>
</tr>
<tr>
<td>George Washington University, D.C.</td>
<td></td>
<td>B.A./B.S. in Computer Science</td>
<td></td>
</tr>
<tr>
<td>George Washington University, D.C.</td>
<td></td>
<td>Bachelor's in Integrated Information, Science and Technology</td>
<td></td>
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<tr>
<td>College of Professional Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harrisburg University of Science and Technology, PA</td>
<td>A.A.S. in Cybersecurity</td>
<td>B.S. in Computer and Information Science with a concentration in Cybersecurity</td>
<td></td>
</tr>
<tr>
<td>Marymount University, VA</td>
<td>A.A.S. in Cybersecurity</td>
<td>B.S. in Information Technology with a Specialty in Networking and Cybersecurity</td>
<td></td>
</tr>
<tr>
<td>University of Maryland University College</td>
<td>A.A. in Computer Science</td>
<td>B.S. in Computer &amp; Information Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A. in Cybersecurity</td>
<td>B.S. in Computer Network &amp; Security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A. in Computer Applications</td>
<td>B.S. in Computer Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A. in Information Systems</td>
<td>B.S. in Cybersecurity</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>B.S. in Digital Media &amp; Web Tech.</td>
<td></td>
</tr>
<tr>
<td>U. of Maryland University College @ USG</td>
<td>A.A. in Computer Science</td>
<td>B.S. in Computer &amp; Info. Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A. in Cybersecurity</td>
<td>B.S. in Comp. Networks &amp; Security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A. in Computer Applications</td>
<td>B.S. in Digital Media &amp; Web Tech.</td>
<td></td>
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<tr>
<td></td>
<td>A.A. in Information Systems</td>
<td>B.S. in Cybersecurity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.S. in Information Systems Mgmt</td>
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</table>
Examples of A.A.S. in Cybersecurity Career Opportunities

**U.S. Government**
Most security jobs – and many non-security jobs – require a Security Clearance. [Must be a U.S. Citizen]

**Private Sector**
If contracting for USG, you may still need a security clearance. If strictly in private sector, you may not.

*But you may need a background clearance. Be careful what you do on Social Media!*
MC Opportunities for Cybersecurity Majors

- We have tutors
  - You are encouraged to take advantage of these resources!

- We have a Cybersecurity Club
  - You are encouraged to join the club (and other extra curricular activities)

- We have a twitter account -- @MCCybersecPgm

- Job opportunities
- Internship opportunities
- Volunteer opportunities
- Cybersecurity conferences
- Cybersecurity webcasts
- And more…
# Cyber Security Program

## Cybersecurity Awareness Month

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 4</td>
<td>1:00 PM</td>
<td>NSA Co-Op program briefing and recruiting</td>
<td>GT/HT230</td>
</tr>
<tr>
<td>Oct 8</td>
<td>3:30 PM</td>
<td>Cybersecurity @ Dataprise Dataprise Internship recruiting</td>
<td>GT/HT230</td>
</tr>
<tr>
<td>Oct 16</td>
<td>12:00 – 1:00 pm</td>
<td>How Attackers Secretly Exfiltrate Stolen Data</td>
<td>GT/HT230</td>
</tr>
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<td></td>
<td></td>
<td>Presented by Professor Vargas</td>
<td></td>
</tr>
<tr>
<td>Oct 25</td>
<td>12:00 – 5:00 pm</td>
<td>Cybersecurity Competition (CTF)</td>
<td>GT/HT 230</td>
</tr>
<tr>
<td>Oct 30</td>
<td>12:00 – 1:00 pm</td>
<td>How Attackers Communicate with Compromised Systems</td>
<td>GT/HT 230</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Presented by Professor Vargas</td>
<td></td>
</tr>
<tr>
<td>TBD</td>
<td></td>
<td>FDA Cyber Center Trip</td>
<td>FDA</td>
</tr>
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</table>

* ALL events Require RSVP

To signup for events requiring an RSVP go to: [https://tinyurl.com/CyberAwarenessMonth2019](https://tinyurl.com/CyberAwarenessMonth2019)

**Limited to current MC students only**

Food/refreshments provided (you must RSVP)
A.A. in Computer Science and Technologies
Early College Degree Program
Transfer Opportunities for Computer Science Major

- University of Maryland, College Park
- University of Maryland, Baltimore County (UMBC)
- University of Maryland Global Campus
- University of the District of Columbia (UDC)
- Shepherd University, WV
- The Universities at Shady Grove
Career Opportunities for Computer Science Major

- Computer and Information Research Scientist
- Computer Programmer
- Software Engineer
- Software Developer
- Computer Support Specialist
- Computer Systems Analyst
- Database Administrator

For more information visit www.montgomerycollege.edu/computerscience
Computer Science Major Opportunities at MC

- Programming Club: Raptors Who Code

**MONTGOMERY COLLEGE’S PROGRAMMING CLUB**

**RAPTORS WHO CODE**

Interested in a tech field or the world of programming and computers? Join Raptors Who Code!

We aim to help our members build their portfolios by making social connections, holding tech-related talks, attending hackathons, and providing a positive environment to learn.

RAPTORSWHOCODE@GMAIL.COM

- Free Tutoring

For more information visit [www.montgomerycollege.edu/computerscience](http://www.montgomerycollege.edu/computerscience)

Contact us: cs@montgomerycollege.edu
Mr. Safiullah Rifai

Year Two Early College
A.S. Mathematics Student
EC² Program Cost to Student

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of degree program including tuition, fees and instructional materials to a non-Early College program student</td>
<td>$12,700</td>
</tr>
<tr>
<td>Approximate cost of program paid by MC &amp; MCPS</td>
<td>$ 9,920</td>
</tr>
<tr>
<td>Approximate cost of program to student (MC fees)</td>
<td>$ 2,724</td>
</tr>
<tr>
<td>(average of $681 per semester)</td>
<td></td>
</tr>
<tr>
<td>Approximate cost of program to student who is FARMS eligible</td>
<td>$ 0</td>
</tr>
</tbody>
</table>

- Early College students are **not** eligible for federal financial aid. However, students may apply for Montgomery College High School Grant funds to cover portions of their fees as these funds are available. For more information on the MC High School Grant, go to the [Dual Enrollment Tuition, Fees and Financial Assistance](http://cms.montgomerycollege.edu/EHDU/Department2.aspx?id=50732) page at:

- **Transportation**: MC students can use Montgomery County Ride On bus service with their student photo ID and current term registration sticker as well as having access to the MC inter-campus shuttle system. MCPS does not provide bus service.
### Approximate Tuition: Early College versus Traditional Tuition

<table>
<thead>
<tr>
<th>Program</th>
<th>Required Years After High School</th>
<th>Total Tuition, Fees &amp; Books for Degree</th>
</tr>
</thead>
</table>
| UMD College Park  
*Bachelor of Science degree*                  | 4                                | **$47,116** ($43,116 tuition & fees + $4,000 instructional materials)        |
| Montgomery College  
*A.A., A.S., or A.A.S. degree plus*  
UMD College Park  
*Bachelor of Science degree*                  | 4                                | **$36,148** (MC: $12,700 + UMD: $23,558)                                    |
| Early College at Montgomery College  
*A.A., A.S., or A.A.S. degree* and  
UMD College Park  
*Bachelor of Science degree*                  | 2                                | **$26,282** or a savings of **$20,834**  
(EC at MC: $2724 + UMD 2yrs. at $22,558) |
### Time to Completion

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional Path</th>
<th>Year</th>
<th>Early College Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4 years to high school diploma</td>
<td>1</td>
<td>2 years of high school</td>
</tr>
<tr>
<td>2</td>
<td>4 years to high school diploma</td>
<td>2</td>
<td>2 years to high school and 2 year degree</td>
</tr>
<tr>
<td>3</td>
<td>4 years to high school diploma</td>
<td>3</td>
<td>2 years to baccalaureate (bachelors) degree</td>
</tr>
<tr>
<td>4</td>
<td>4 years to baccalaureate (bachelor) degree</td>
<td>4</td>
<td>2 years to post-baccalaureate (Masters) degree</td>
</tr>
</tbody>
</table>
Almost all colleges and universities require a set of general education or core courses. General Education courses are part of all Montgomery College associate degree programs.

In these courses, students develop a foundation of skills, knowledge, and values, across a spectrum of topics, that prepare students for success in their future educational pursuits as well as in their personal and professional lives. These are courses that are taken in addition to those courses that are required for the major or degree program.

Students will take classes in writing, humanities, science, and behavioral and social science as part of their general education requirements.

The General Education coursework will transfer to University System of Maryland (USM) 4-year institutions as well as to most colleges and universities.
Early College Program Academic Support

**Mandatory Summer Transition Program:** July 6-July 31, 2020 Monday-Friday,
9 a.m.-noon on the Germantown Campus

**Purpose:** EC students will be prepared to meet the demands of college by bridging the gap between high school and college and facilitate student readiness for college. In addition to improving their math readiness, students will also:

- Prepare for specific degree college mathematics curriculum
- Learn how to access campus resources and services
- Discover new study and time management skills
- Improve team-building and problem-solving skills
- Become familiar with the campus and student organizations and clubs
- Understand graduation requirements
- Increase knowledge of MC policies/procedures
Additional Academic Support

Ongoing Services & Support:

- Students are highly encouraged to begin preparing for the college assessment testing right *now* by using the **Khan Academy** to increase English and Mathematics skills.

- Ackerman Learning Center: Math & Science support center with services including tutoring, current textbooks, calculators, review sessions, and a computer lab.

- Business tutoring and mentoring is available.

- Embedded coaches work to support specific Early College courses.

- Early College Academic Coordinator is available on each campus to assist students with advising, course registration, connect students to services, transfer questions, etc.

- Writing Center: Services include in-person and online one-to-one tutoring, specialized workshops, PC and MAC computers, Microsoft Office suite and various resources assigned by faculty.
Disability Support Services

• DSS provides accommodations and supports for qualified students with documented disabilities college-wide.

• Services that students received through an IEP or 504 plan at MCPS do not convey to college.

• Students should apply for college services at least one month prior to the start of their classes.

✓ Contact the Germantown Campus DSS office on 240-567-7770.
Next Steps

• Interested Grade 10 students must complete the **MCPS Common Application** by **November 1st** deadline. The Gr 10 application info will be on the special programs website in MID OCTOBER: https://www.montgomeryschoolsmd.org/curriculum/specialprograms/high/

Choose the appropriate letter for the student’s grade level.

• Eligible and Non-Eligible students will be informed of status by MCPS by **December 13, 2019**.

• Eligible students will receive an email and be asked to complete the **MCPS Early College Application Form** and **Montgomery College Admissions Application** by **January 3, 2020**.

• Eligible students will be contacted by their high school and scheduled to take the College Board ACCUPLACER assessment by **February**.

• All Eligible students who meet the program requirements will be provisionally accepted to the summer transition program pending final grades and MCAP and state assessment scores and will be notified by **mid-April**.
  • NOTE: If there are more eligible students than seats, a lottery will be held and students will be informed of their status.

• Attend and satisfy requirements of the Early College Summer Transition program, July 6-July 31, and assess into appropriate math course for degree option.

• Mandatory new student meeting will be held the **week of August 24th** with the **fall 2020 semester courses beginning on Monday, August 31, 2020**.
Contact Information

**General questions** about the Early College experience, contact Amy Crowley at: amy.crowley@montgomerycollege.edu

Questions on the **application process**, contact Mike Sullivan at: Michael_P_Sullivan@mcpsmd.org

For questions on the **Cybersecurity A.A.S. degree**, contact Cybersecurity Program Advisor David Vargas at: david.vargas@montgomerycollege.edu or Cybersecurity Coordinator and Advisor Silvia Vargas at: silvia.vargas@montgomerycollege.edu

Questions on the **Computer Science and Technologies A.A. degree**, contact Alla Webb at: alla.webb@montgomerycollege.edu

Questions about **Disability Support Services**, contact Sue Haddad at: sue.haddad@montgomerycollege.edu
Additional Information

Program information can be found at:

www.montgomerycollege.edu/early-college

https://montgomeryschoolsmd.org/curriculum/partnerships/dual-enrollment.aspx

From the MCPS Home Page, search “Dual Enrollment” and click on the first result. The Early College information is in the middle of the page.