

TRANSFER ADVISING for Majors in Cybersecurity, Information Assurance and Computer Security

Most colleges offer four-year bachelor's degrees that vary from "Cybersecurity" to a more traditional "Computer Science with a Track or Concentration in Cybersecurity." Many majors require that transfer students have a strong background in computer programming and calculus - read course requirements carefully. DO THE RESEARCH - when choosing a transfer school for Cybersecurity, find current articles about the field "Careers in Cybersecurity" - there are many different opinions about the type of degree needed for employment in this field.

Montgomery College offers an <u>Associate in Applied Science in Cybersecurity</u> which prepares students for entry-level positions in cybersecurity. UMUC and George Washington University's College of Professional Studies (see below) are two schools that accept the MC Cybersecurity AAS in its entirety. Most transfer schools, including UM College Park, Towson and UMBC, require the <u>MC Associate of Arts in Computer Science</u> for transfer into cybersecurity-related majors. Many schools include Cybersecurity or Information Assurance as a track within a Computer Science Major. Check the math and computer science requirements at schools listed below – many require MC's MATH 181 & 182 Calculus I & II, as well as programming classes of CMSC 140 Intro to Programming and CMSC 203, CMSC 204 Computer Science I & II. Use your own cyber skills to determine which school is the right fit for your interest in this field.

Find Career Descriptions for Cybersecurity: The Future of Cybersecurity Jobs - Monster.com

Nearby Related Four-Year Bachelor's Degree Programs - Maryland

- Bowie State University: Computer Technology BS Tracks: Internet Technology & Multimedia, Networking & System Administration, Database Development & Administration, and Computer & Network Security. This major requires MATH 181 & 182 Calculus I & II and CMSC 140, 203 & 204. NWIT courses accepted*? Yes, as lower level electives, may only apply to this major if room exists for elective courses.
- <u>Capitol Technology University</u> Laurel, MD: <u>Cyber and Information Security B.S</u>. Requires Computer Science Programming courses. **NWIT courses accepted?** Yes, most as lower level electives or TECH electives.
- Frostburg State University Secure Computing and Information Assurance B.S. Requires MATH 150 Elementary Applied Calculus or MATH 181 Calculus and Computer Science Programming courses, if you take MC's CMSC 203 & 204 Computer Science I and II, you must complete MATH 181 & 182 Calculus I & II. NWIT courses accepted? No, most are currently listed as either Not Transferable or To Be Determined.
- <u>Stevenson University</u> Baltimore MD: <u>B.S. in Cybersecurity and Digital Forensics</u> (new starting Fall 2019). <u>NWIT courses accepted?</u> Yes, many are accepted as equivalents to IS courses required in the BS degree.
- Towson University, Towson MD: Computer Security track within the Computer Science degree. Requires MATH 181 & 182 Calculus I & II and CMSC 140, 203 & 204, and Discrete Structures. Towson's BS in Information Technology www.towson.edu/fcsm/departments/computerinfosci/undergrad/infotech/ requires MATH 117 Statistics and CMSC 140 Intro to Programming. NWIT courses accepted? Yes, as electives only; none currently fit the first two-year requirements for Towson's new Information Technology Bachelor's degree.
- <u>University of Baltimore</u>, Baltimore, MD: <u>Applied Information Technology degree</u> includes an <u>Information</u>
 Assurance and Security Track. Requires MATH 181 Calculus I. <u>NWIT courses accepted?</u> Yes, lower level electives only.
- <u>University of Maryland, College Park</u>: Cybersecurity specialization within Bachelor of Science in Computer
 <u>Science undergrad.cs.umd.edu/degree-requirements-cs-major</u>
 Requires MATH 181 & 182 Calculus I & II, CMSC 203
 & 204 Computer Science I & II. Most students complete the MC AA degree in Computer Science prior to transfer.
 NWIT courses accepted? No.

^{*} NWIT Course transferability determined through the MD State Transfer Website http://ARTSYS.usmd.edu

Montgomery College TRANSFER ADVISING for Cybersecurity-Related Majors, continued

- <u>UMBC</u>, Baltimore Cyber Scholars Program, open to transfer students: cybersecurity.umbc.edu/cyberscholars
 Majors: UMBC offers an Information Assurance Track which can be added to one of the following majors: Computer Science; Computer Engineering; Information Systems, Mathematics or Physics.
 <u>www.cisa.umbc.edu/programs.php</u>
 All Cyber Scholars majors above require Calculus I & II. For UMBC's Computer Science major, students must also complete 12 credits of Science for Science Majors (must choose 3 courses, two in a sequence and one additional from: BIOL 150 & 151 Principles of Biology or CHEM 131 & 132 Principles of Chemistry or PHYS 161 & 262 General Physics), as well as Computer Science I & II. See requirements here: www.csee.umbc.edu/programs/undergraduate/computer-science-bs
 NWIT courses accepted? Not applicable to the majors listed above.
- **UMUC University of Maryland, University College** MC's Cybersecurity AAS transfers in its entirety to UMUC; UMUC offers the following majors related to Cybersecurity:
 - MC Computer Science AA transfers to UMUC Computer Science BS
 - MC Computer Science AA transfers to UMUC Software Development and Security BS
 - MC Cybersecurity AAS fully transfers to UMUC Cybersecurity Management and Policy BS
 - MC Cybersecurity AAS fully transfers to UMUC Computer Networks and Cybersecurity BS

NWIT courses accepted? Yes, number of credits accepted varies by major, some may also apply to BS degrees in Computer Science or Software Development.

<u>UMUC Completion Scholarship</u> – all students who complete an Associates degree in any subject at Montgomery College receive an automatic Completion Scholarship that reduces the cost of each UMUC course by about \$100.

Other Nearby Programs - check transferability of NWIT courses by contacting schools.

District of Columbia

- George Washington University GW's College of Professional Studies (an Evening Program only) accepts MC's
 Cybersecurity AAS for the Cybersecurity Bachelor's Degree Completion Program
- **GWU Cybersecurity Scholarships <u>www.seas.gwu.edu/cybercorps</u>** Apply to GWU.edu daytime majors of computer science, electrical engineering, engineering management and systems engineering, business administration, public policy, information technology. See website for details.
- Howard University, D.C.: Cybersecurity is a track in the Computer Science degree:
 https://cps.gwu.edu/cybersecurity-bachelors-degree-completion-program
 Requires Calculus I & II

Virginia:

- George Mason University, VA: Bachelor of Applied Science in Cyber Security.
- Marymount University, Arlington VA: Information Technology BS areas of Applied Cybersecurity, Applied IT, Computer Science, Data Science, Forensic Computing, Information Systems, Interactive Media, Networking and Cyber

West Virginia:

- **Computer and Information Technology.** Major provides a foundation in information systems, networking, database, biometrics and information security, software development, and web programming.
 - Math required: Discrete Structures (to be taken at Shepherd). MC students may receive a 25% tuition discount by enrolling early in TOPS (Transfer Opportunity Program at Shepherd).

MONTGOMERY COLLEGE ADVISING

- **CYBERSECURITY Program Advising** Germantown Campus: Professor <u>Silvia.Vargas@montgomerycollege.edu</u>, Professor <u>David.Vargas@montgomerycollege.edu</u>, Professor <u>Joseph.Roundy@montgomerycollege.edu</u>
- **COMPUTER SCIENCE Program Advising** Germantown Campus: Professor Margaret.Tseng@montgomerycollege.edu

 Rockville Campus: Professor Alla.Webb@montgomerycollege.edu