

FBI-Cyber STEM Pathway Program

Arlington Public Schools Program of Studies

(Rising Freshmen & Rising Senior May Apply)

[APPLY](#)



Program Overview

Arlington County Public Schools (APS) has partnered with Federal Bureau of Investigation (FBI) to create a FBI-Cyber STEM Pathway Program. This program is designed for students who have a strong interest and desire in learning and pursuing careers in Cyber Security while discovering the richness and integration of the science, technology, engineering and mathematics across a wide spectrum of disciplines. Any Arlington Public Schools student who satisfies the Advanced Studies Diploma requirements and complete the specific Cyber STEM Pathway requirements will receive the FBI-Cyber STEM Certificate upon graduation.

The Purpose

FBI-Cyber STEM Program focuses on recruiting high school aged STEM students with the goal to attract and develop the next generation of technically trained professionals. The goal is to introduce highly motivated students to the Cyber Security field and provide them with the skill sets needed to pipeline in to a career with the Federal Government.

Benefits to the students

- 1) Students will be introduced to the sought-after skills and the hands-on experience needed to pursue an occupation in a high-demand Cyber Security field.
- 2) Students will understand the employment requirements for a career in the Federal Government.
- 3) Upon completion of the requirements students will obtain a certificate. The certificate provides a way to *differentiate oneself* from others and can be added to their resume as they apply for jobs.
- 4) Students will begin to develop a professional network within the intelligence community.

FAQs

1) What are the specific requirements of the FBI-Cyber STEM Pathway Program?

- Complete 5 Cyber focused course credits
- Pass 1 industry credentialing test
- Complete 1 Cyber Security Assessment/Camp/Competition
- Participate in 2 FBI sponsored activities (assemblies, case studies, internships, etc.)

2) When should students apply?

Arlington County will send out a message to students indicating the application window dates for the upcoming school year.

3) Can I be grandfathered into the Program?

The FBI program is open to rising freshman through rising senior students. The school will determine which students meet the criteria to be added to the program.

4) Do I have to take the test at end of my AP course in order for my completion of an AP course to count towards the requirements of the Program?

The FBI does not require students to take the AP/IB exam; however, the student must complete the course with a passing grade. The FBI would encourage students to take those type of exams for college credit.

FBI-Cyber STEM Pathway Program

The chart below outlines the specific requirements needed to achieve the FBI-Cyber STEM Pathway Certificate:

*The * indicates subject areas that are unique to the program*

FBI-CYBER STEM PATHWAY PROGRAM REQUIREMENTS	CREDENTIALING REQUIREMENTS
Cyber – STEM Pathway CTE*	5 FBI-Cyber STEM Concentration Pathway Credits
Mathematics	4 Credits
Laboratory Science	4 Credits
English	4 Credits
History & Social Sciences	4 Credits
Foreign Languages	3 Credits
Health & Physical Education	2 Credits
Economics and Personal Finance	1 Credit
Industry Credentialing Test*	1 Pass
Cyber Security Assessment/Camp/Competition*	1 Challenge
FBI Engagement Activities*	2 Activities
Total	27 credits + 1 Challenge + 2 Activities

Reference the FBI-Cyber STEM Course Offerings listed below for a list of the applicable courses that satisfy the requirements. Please visit the [Arlington Public Schools Program of Studies](https://www.apsva.us/curriculum) for the description of these courses.

For additional information, send an email to Phyllis.Gandy@apsva.us, Curriculum Supervisor, Career and Technical Education and Compute Science, using the Subject Line: FBI-Cyber STEM

FBI-Cyber STEM Course Offerings & Requirements

Step 1: [Apply](#). Complete the online application. Select any of the following FBI-Cyber STEM Course Pathways listed below or take any 5 FBI-Cyber STEM courses within multiple pathways. Students can start taking the following FBI-Cyber STEM courses as a seventh grader in middle schools.

MIDDLE SCHOOL AVAILABLE FBI-CYBER STEM COURSES

- 16640 Investigating Computer Science
- 18421 Technology of Robotic Design

HIGH SCHOOL FBI-CYBER STEM PATHWAYS & COURSES

Cyber Security Pathway:

- 26653 Cybersecurity I: Networks
- 26654 Cybersecurity I: Operating Systems
- 26655 Cybersecurity I: Systems Administration
- 26656 Cybersecurity I: Telecommunications & Routing Protocols
- 26657 Cybersecurity II: Network Operations
- 26658 Cybersecurity II: Network Operations Advanced
- 96653W Cybersecurity I: Networks (Dual Enrollment, college credits, Arlington Tech)
- 96654W Cybersecurity I: Operating Systems (Dual Enrollment, college credits, Arlington Tech)
- 96655W Cybersecurity I: Systems Administration (Dual Enrollment, college credits, Arlington Tech)
- 96656W Cybersecurity I: Telecommunications & Routing Protocol (Dual Enrollment, college credits, ARTech)

Computer Science Pathway:

- 26638 Computer Programming
- 26643 Computer Programming, Advanced
- 26639 Computer Science
- 33185 Computer Science, AP
- 33186 Computer Science Principles, AP
- 36560/36570 IB Computer Science, HL Part I & Part II
- 96639W Computer Science (Dual Enrollment, college credits)
- 96638W Computer Programming (Dual Enrollment, college credits)
- 96639W Computer Science (Dual Enrollment, college credits)

Business and Information Technology Pathway:

- 23105 Foundation Technology
- 26116 Introduction to Information Technology
- 26648 Advanced Topics in Information Technology
- 26614 Computer Information Systems
- 29800 Computer Networking and Internet App
- 26630 Design, Multimedia, and Web Technologies
- 26649 Advanced Topics in Computer Information Systems
- 26638 Computer Programming
- 26643 Computer Programming Advanced
- 96660W Database Design & Management (Dual Enrollment, college credits, Arlington Tech)
- 96646W Design, Multimedia & Web Technologies (Dual Enrollment, college credits, Arlington Tech)

Engineering Pathway:

- 28491 Engineering I: Introduction to Engineering Design
- 28492 Engineering II: Principles of Engineering
- 28493 Engineering III: Computer Integrated Production Engineering
- 28494 Engineering IV: Design and Development
- 26671 Digital Electronics (Arlington Career Center/Arlington Tech Only)
- 38496/38497 IB Design Technology

28467 Biotechnology Techniques and Applications
28325 Forensic Technology with application in Biotechnology
28421 Robotic Design

PASS ANY ONE OF THE FOLLOWING CERTIFICATIONS

Step 2: Pass at least 1 FBI-Cyber STEM Certification while enrolled in a FBI-Cyber STEM course from the list below. The course teacher will coordinate the scheduling of the certification with the student.

Linux+ Examinations—Powered by Linux Professional Institute (LPI) (Must pass both exams)
Microsoft Technology Associate (MTA) Examinations (Pass any one exam)
Network Administration Certification Tests (Pass any one test)
Network Pro Certification Examination
Network+ Certification Examination
Project Lead the Way Engineering (PLTW)
Security Pro Certification Assessment
Security+ Certification Examination
Software Development Certification Tests (Pass any one test)
Systems Administration Certification Tests (Pass any one test)
Technical Support Certification Tests (Pass any one test)
Web Administration Certification Tests (Pass any one test)
CIW Web Design and Development Certification Tests (Pass any one test)
A+ Certification Examination
Cisco Certified Networking Associate (CCNA) Routing & Switching Examination
Cisco Certified Networking Associate (CCNA) Security Examination
Cisco Certified Networking Professional (CCNP) Routing and Switching Examination
Cisco Certified Networking Professional (CCNP) Security Examination
CompTIA IT Fundamentals Certification Examination
Computer Maintenance Technology Examination
Computer Networking Fundamentals Assessment
Computer Repair Technology Assessment
Computer Service Technician (CST) Examination
Computer Technology Assessment

FBI CYBER STEM EVENTS & ACTIVITIES

Step 3: Participate in a total of 1 Cyber Security Challenge (Dates will be sent to participants)

1. Cyber Security Assessment/Camp/Competition:

The Arlington FBI-Cyber STEM course teacher will be notified of these opportunities to participate in FBI lead engagements at a later date as the events are announced. The selected participants will be notified by the Arlington FBI–Cyber STEM course teacher on the event dates and times.

2. FBI Engagement Activities: Attend a total of 2 FBI engagement activities (Dates will be sent to participants).

The Arlington FBI–Cyber STEM course teacher will be notified of these opportunities to participate in FBI lead engagements as the events are announced. The selected participants will be notified by the Arlington FBI–Cyber STEM course teacher on the event dates and times.

Step 4: Graduate with an official FBI-Cyber STEM Certificate