

***Pathways to CyberSecurity Careers Consortium***  
**Anne Arundel Workforce Development Corp. (AAWDC)**  
**Anne Arundel Community College (AACC)**



**STATEMENT OF NEED**

Maryland has a critical mass of federal agencies and information technology companies that place it as a national epicenter of federal cybersecurity activities. World-class cybersecurity facilities include NSA, Defense Information Systems Agency (DISA), Intelligence Advanced Research Projects Activity, the National Institute of Standards and Technology, 12 major military installations (including Fort Meade in Anne Arundel County which is home to the Navy Fleet Cyber Command and potential home to the new U.S. Cyber Command), and hundreds of federal contractors and private technology companies. Maryland information technology employment is dominated by firms that provide computer systems design, key players in cybersecurity activities. Overwhelmingly, stakeholders in Maryland report a need to increase the pipeline of qualified cyber workers as the state’s most immediate and significant challenge.

**CONCEPT OVERVIEW**

The Department of Labor announced June 30, 2010 that Anne Arundel Workforce Development Corporation (AAWDC) and Anne Arundel Community College (AACC) will lead the *Pathways to Cybersecurity Careers Consortium* in a \$4.9 million grant over 3 years awarded through its Community-Based Job Training funding. This funding will create a diverse and flexible array of training options that will grow the cyber skills and competencies of hundreds of Marylanders, targeting new, incumbent, dislocated and unemployed workers. The training in cyber will lead to portable, stackable and industry-recognized credentials. Employers will provide information on the types of training needed, referrals of incumbent workers to training, and job opportunities for successful completers. This project will address the challenges of a lack of adequate pool of skilled cyber workers, the shortage of laboratory facilities to support cyber training, a lack of training in flexible modalities, and barriers to learning for underserved populations. Senator Mikulski sums, “This is about jobs, jobs, jobs. It’s about giving people the tools they need to keep the jobs they have and it’s about preparing people who need jobs for jobs that are available in Maryland today.”

**CONSORTIUM ADVISORY BOARD**

The Consortium Advisory Board will include representatives from the Workforce Investment System, Community Colleges, Business and Industry, a Continuum of Education, Community Organizations, and representatives from State and Local Government. The Advisory Board will meet quarterly to identify the needs of the consortium members as they relate to cybersecurity and information assurance training; provide insight, suggestions, and concerns in order to increase the effectiveness of the program; and inform and update members on the status and progress of the project.

<b>Workforce Investment System</b>	<b>Community Colleges</b>
Anne Arundel Workforce Development Corporation	Anne Arundel Community College
Baltimore Mayor’s Office of Employment Development	Carroll Community College
Mid-Maryland Workforce Investment System	Howard Community College
<b>Business and Industry Representatives</b>	<b>Continuum of Education</b>
ANALYSIS	Anne Arundel County Public Schools
ARINC	University of Maryland University College
Praxis	<b>State and Local Government</b>
TechAmerica	MD Dept. of Business and Economic Development
Chesapeake Regional Tech Council	MD Dept. of Labor, Licensing and Regulation
<b>Community Organizations</b>	MD Governor’s Workforce Investment Board
Goodwill Industries of the Chesapeake	Anne Arundel Economic Development Corporation

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**TRAINING OVERVIEW**

AACC is the lead college in the consortium and is a recognized leader in cybersecurity education. It was the first community college in the nation to have its mapped cyber security curriculum certified by NSA, and is among a handful of community colleges in the U.S. designated as a Center of Academic Excellence for Two-Year Colleges. AACC will share its expertise and curricula with all consortium college partners. Howard Community College has been actively developing cybersecurity programs, including computer forensics and network security. Carroll Community College is in the process of creating its cybersecurity program. This grant proposal includes conversion of all relevant classes to online format, the creation of a virtual lab, and the ability for colleges to leverage greater resources to better serve the region.

CyberSecurity classes to be offered:

<b>INTRODUCTORY TRACK</b>	
<b>Course Name</b>	<b>Industry Certification</b>
Theories and Applications of Digital Technology	IC3
Microcomputer Operating Systems	MCAS (with CSI 113)
Troubleshooting Microcomputers 1	A+
<b>NETWORKING TRACK</b>	
<b>Course Name</b>	<b>Industry Certification</b>
Introduction to Unix/Linux	
Networking 1	CCNA
Networking 2	
Networking 3	
Networking 4	
Cisco Exam Review	
Windows Server	MCSA 70-290
Windows Networking	MCSA 70-291
<b>DIGITAL FORENSICS TRACK</b>	
<b>Course Name</b>	<b>Industry Certification</b>
Cyber Forensics	CCE
Advanced Cyber Forensics	
Mobile Device Forensics	
<b>CYBERSECURITY TRACK</b>	
<b>Course Name</b>	<b>Industry Certification</b>
Network Security Fundamentals	Security +
Information Systems Security	
Tactical Perimeter Defense	SCNA
Strategic Infrastructure Security	SCNP
Information Security Capstone	