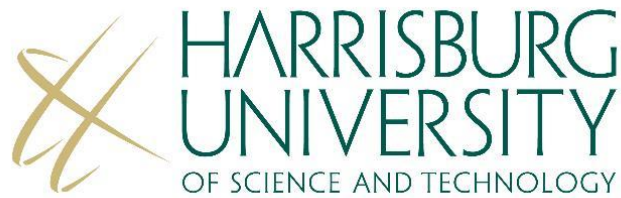# Cumberland Valley School District, Harrisburg University & NuPaths

Track 1:
Technical and Security Assistant

Foundations in Information Technology
Client & Server Technician Fundamentals
The Fundamentals of Productivity Software
IT Security Essentials

Technical Support Project	IT Security Project

CompTIA IT Fundamentals
Microsoft Office Specialist (Excel; Outlook)
CompTIA A+
Microsoft Technical Associate: IT infrastructure (Windows Server Administration Fundamentals)
Microsoft Technical Associate: IT infrastructure (Security Fundamentals)
Optional: Microsoft Office Specialist (Word; PowerPoint)

- 6 and Up to 8 potential certifications
- 2 projects
- 14 potential HU credits

Related Job Titles and Demand:
5856 Jobs in Washington, Baltimore, and Philadelphia Metro Area

553 Jobs Within 25 Miles of Harrisburg

- **Technical Support Representative** *(50,554 nationwide | 1,237 in WBP | 167 within 25 miles of Harrisburg)*
- **IT Technical Support Specialist** *(21,626 nationwide | 950 in WBP | 80 within 25 miles of Harrisburg)*
- **Technical Support Analyst** *(46, 069 nationwide | 2,028 in WBP | 267 within 25 miles of Harrisburg)*
- **IT Service Desk Analyst** *(3,662 nationwide | 136 in WBP | 56 within 25 miles of Harrisburg)*
- **End User Support Specialist** *(6,257 nationwide | 247 in WBP | 39 within 25 miles of Harrisburg)*

  ➤ *WBP = Washington, Baltimore, Philadelphia*

2450 Jobs Within 100 Miles of Harrisburg

- **IT Security Monitor** *(31,475 nationwide | 729 in WBP | 88 within 25 miles of Harrisburg)*
- **Junior Security Analyst** *(1,356 nationwide | 137 in WBP | 391 within 100 miles of Harrisburg)*
- **Junior Information Security Analyst** *(1,484 nationwide | 139 in WBP | 452 within 100 miles of Harrisburg)*
- **Security Threat Analyst** *(4,367 nationwide | 466 in WBP | 1,519 within 100 miles of Harrisburg)*

  ➤ *WBP = Washington, Baltimore, Philadelphia*

Track 2:
Associate Web Site Analyst

Web Design and Development Fundamentals
Foundations in Information Technology
Web Site Statistics and Data Analysis
Building Web User Interfaces and Interactions
Web Analyst Project

CompTIA IT Fundamentals
Adobe Dreamweaver; Adobe Photoshop
Microsoft Technology Associate: Developer (HTML5 App Development Fundamentals)
Google Analytics Individual Qualification (IQ)
Microsoft Office Specialist – Microsoft Excel

- 6 potential certifications
- 1 project
- 14 potential HU credits

Related Job Titles and Demand:
1467 Jobs in Washington, Baltimore, and Philadelphia Metro Area

25 Jobs Within 25 Miles of Harrisburg

- **Digital Marketing Assistant** *(2,043 nationwide | 56 in WBP | 3 within 25 miles of Harrisburg)*
- **Digital Marketing Specialist** *(6,334 nationwide | 84 in WBP | 10 within 25 miles of Harrisburg)*
- **e-Commerce Assistant** *(1,314 nationwide | 11 in WBP | 2 within 25 miles of Harrisburg)*
- **Digital Marketing Analyst** *(3,904 nationwide | 65 in WBP | 10 within 25 miles of Harrisburg)*

WBP = Washington, Baltimore, Philadelphia

199 Jobs Within 25 Miles of Harrisburg

- **Junior Front-End Developer** *(1,254 nationwide | 55 in WBP | 6 within 50 miles of Harrisburg)*
- **Entry-Level Web Developer** *(638 nationwide | 21 in WBP | 17 within 25 miles of Harrisburg)*
- **Web Developer** *(47,356 nationwide | 1,175 in WBP | 176 within 25 miles of Harrisburg)*

WBP = Washington, Baltimore, Philadelphia

Certificates become more valuable when layered over business, marketing, communications background.

US Bureau of Labor and Statistics: Computer Support Specialists

2016 Median Pay (All Related Positions): $52,160 per year/ $25.08 per hour in May 2016.

The median annual wage for computer network support specialists was $62,670 in May 2016.

The median annual wage for computer user support specialists was $49,390 in May 2016.

Work Experience in a Related Occupation: None

Number of Jobs, 2016: 835,300

Job Outlook, 2016-26: 10% (Faster than average)

Employment Change, 2016-26: 87,100

Education:

Education requirements for computer support specialists vary. Computer user support specialist jobs require some computer knowledge, but not necessarily a post-secondary degree. Applicants who have taken some computer-related classes may be qualified for these jobs.

Licenses, Certifications, and Registrations:

Certification validates the knowledge of and best practices required by computer support specialists. Companies may require their computer support specialists to hold certifications in the products the companies use.

US Bureau of Labor and Statistics: Computer Support Specialists

Attaining Post-Secondary Degrees:

The US Bureau of Labor and Statistics reports that students who seek a bachelor's degree in this field can expect to hold positions such as the ones listed below.

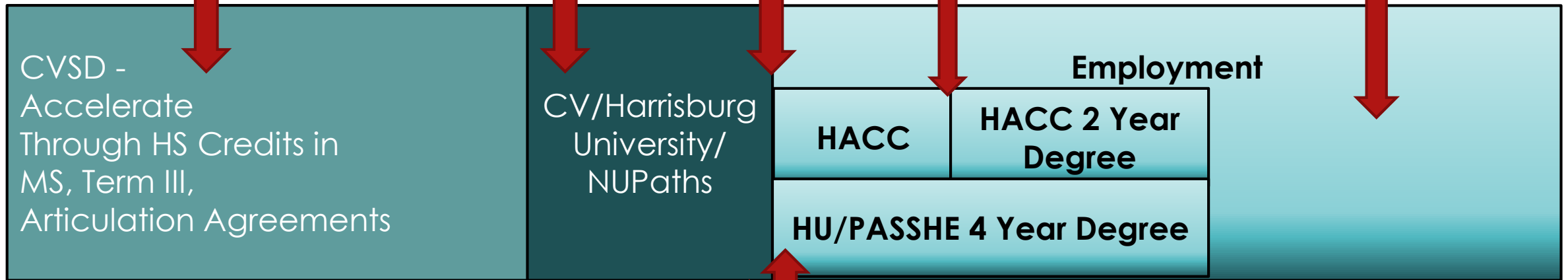| Position	2016 Median Pay
Network and Computer Systems Administrators	$79,700
Computer Programmers	$79,840
Computer Systems Analysts	$87,220
Information Security Analysts	$92,600
Computer Network Architects	$101,210
Software Developers	$102,280

Program Design

CV Students on Programming or IT Pathway or CPAVTS Students who Begin as Freshman and Spend Senior Year in CV IT

CVSD Supervised Employment (Co-op or Internship)

High School Graduation

Apprenticeship, Associated Degree Post- Secondary Studies and/or Continued Employment

Life-Long Learning

CVSD - Accelerate Through HS Credits in MS, Term III, Articulation Agreements	CV/Harrisburg University/ NUPaths	Employment

HACC | HACC 2 Year Degree

HU/PASSHE 4 Year Degree

0 Credits   23+ Credits   6 Credits

Bachelors Degree Post- Secondary Studies

ENDORSEMENT PATHWAYS

Cumberland Valley High School Diploma

4 English
3 Math
3 Science
3 Social Studies
2 Math or Science or Social Studies
1.5 Health and Physical Education
and
6.5 Electives
(CV Programming Courses or Votech can be Included in 6.5 Electives)

WORKFORCE READY → **Three Years at Votech in Networking or Programming Lab**

CAREER AND POST-SECONDARY STUDIES → **Three Years at Votech with Post-Secondary Credit or Three Years at Votech and One Year CV IT or Three Years at CV with 1 Year CVIT – CVIT Requires Completion of 1 or more IT Certifications**

ADVANCED POST-SECONDARY STUDIES → **4 CV Computer Programming including AP Computer Science – 1 Year CV IT Optional but Recommended**

Delivery Model

- The IT Pathway would be delivered in a traditional and nontraditional setting and would include face-to-face and blended instruction.

- A CV teacher will work in a "lab setting" the first half of the day in partnership with the HU consultant preparing students to take industry exams that lead to marketable IT certifications.

- The HU consultant would be physically present two or three days a week insuring industry standards, university rigor, and real-world applications.

- Students only seeking certifications with their CV Diploma will participate in coop and internship experiences the second half of the day and have lab time for test preparation.
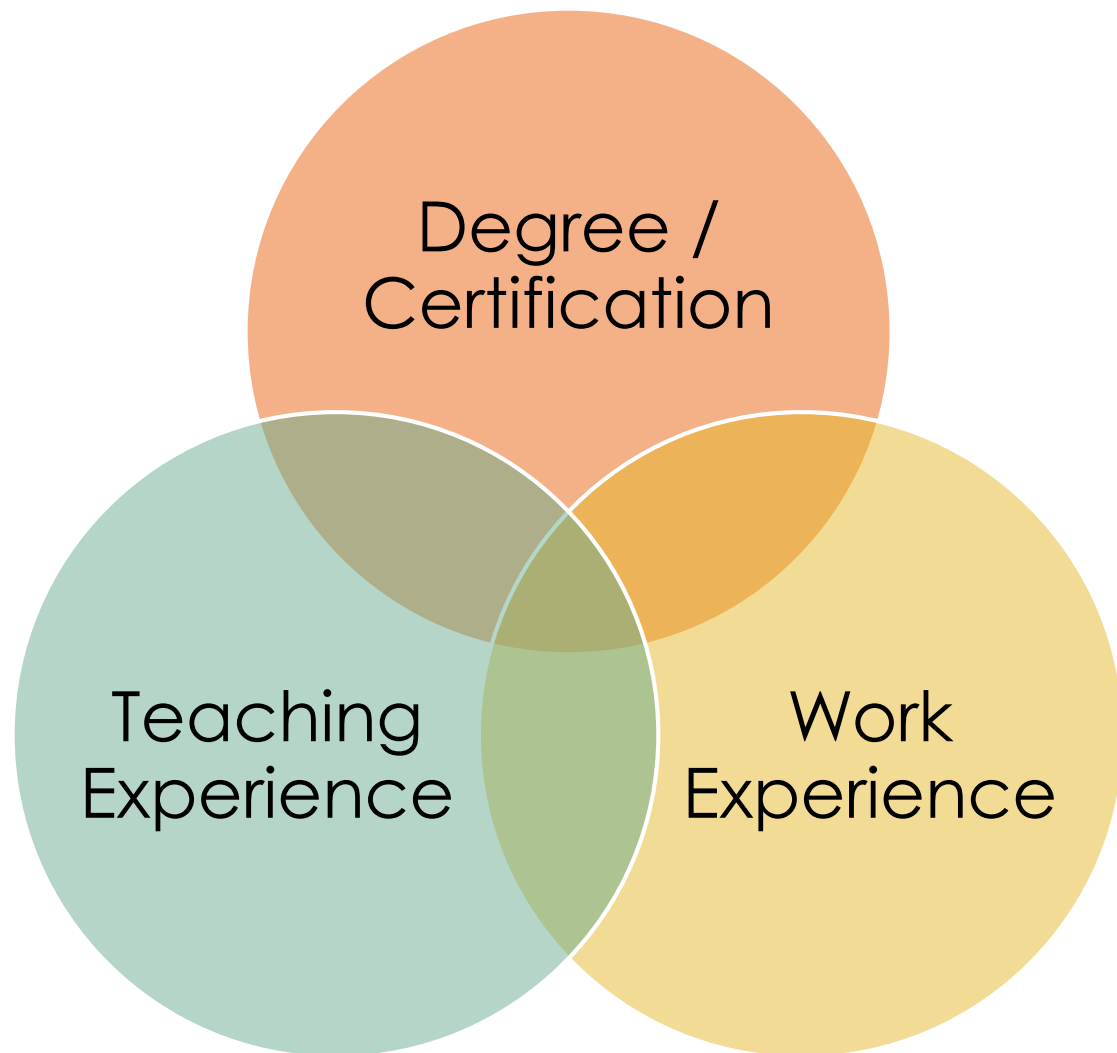
Delivery Model

- Students from the four year college bound group who brought credits from Middle School and utilized Term III would have the ability in their schedule to cross-over into the certification program.

- We would seek a Vocational/Technical Certification of the program to receive additional reimbursement.

- Students seeking only 1 semester may graduate early.

- Open seats would be tuitioned to neighboring districts.

- With the space and the program in place we can "rent" the educational space to HU outside the school day and in the summer for classes.

Why an HU Consultant?

- INDUSTRY STANDARDS AND SOFTWARE VERSIONS CHANGE AT A RATE GREATER THAN CV CAN PROVIDE PROFESSIONAL DEVELOPMENT TO A SECONDARY TEACHER.

- IT SECURITY CHALLENGES/ISSUES CHANGE CONSTANTLY AND WITHOUT ON-GOING ALIGNMENT WITH INDUSTRY STANDARDS IS ESSENTIAL.

- STUDENTS NEED TO BE INDUSTRY READY UPON GRADUATION WHICH REQUIRES REAL-WORLD INTERACTIONS,

- THE CONSULTANT WILL ALSO SERVE AS CORPORATE FACULTY AT HU ASSURING CURRICULUM AND ACADEMIC RIGOR ARE BEING MET FOR THE ISSUING UP TO 11 UNIVERSITY CREDITS.

- DEPENDING ON THE CERTIFICATION TRACK THE CONSULTANT STRENGTHS CAN BE MATCHED TO STUDENT AND MARKET NEEDS AND AS INDUSTRY STANDARDS CHANGE OVER TIME.

HU CONSULTANT PROFILE

Degree / Certification

Teaching Experience

Work Experience

SKILLS

- HTML5
- CSS3
- JavaScript
- React JS
- Vue.JS

- PHP
- SASS
- Git
- Node.js
- JSON

- Adobe CC
- Sketch
- XML
- MySQL
- Gulp

- Yarn
- WordPress
- Drupal
- Microsoft Office

EXPERIENCE

Owner/Director/Contractor
Hauck Interactive, Inc. | September 2006–Present
Provided consulting, web design and custom development for small businesses using WordPress, Drupal, and Jekyll. Provided front-end development consulting for larger, agile teams in single-page applications. Clients have included Verizon, New York University Tisch School of the Arts, U.S. Chamber of Commerce, Fitbit, HopeLab, TorchBearer Sauces, and Showtime Networks.

Adjunct Instructor
Harrisburg Area Community College | Spring 2009–Present
Continuously develop curriculum for Art 114: Interactive Media and Design. Teach interactive and responsive website design. Taught digital photography and image correction and manipulation in Art 176: Digital Photo Imaging.

- *York College | Fall 2015*
  Developed curriculum and taught Art 340.801 Web Design I.

- *Harrisburg University | Spring 2014*
  Created a curriculum and taught LTMS 611: Extensible Languages for Development. The blended course covered project management, frontend and backend development, and working with third-party APIs.

- *Colorado College | 2009*
  Visiting Instructor for Big Games/Alternate Reality Game class.

- *City College of New York | Spring 2007*
  Taught web animation with Adobe Flash. Developed curriculum. Responsible for assigning and grading student projects, teaching timeline and Actionscript-based animation, as well as basic programming and interactivity.

Technical Editor
John Wiley & Sons | 2011
Heldman, William. "Adobe Flash Professional CS6 Essentials." Indianapolis: John Wiley & Sons, 2012. Print.

Web Designer/Developer
Freelance | September 2004–September 2006

Web Designer/Developer
JPL Productions | March 2000–September 2004
Responsible for concept development, design layout, and interactivity of corporate and business websites. Spearheaded Adobe Flash development and served as group leader for internal Flash designer meetings. Introduced shared components, Flash video, and helped implement emerging Web standards.

EDUCATION

New York University
Master of Professional Studies
Interactive Telecommunications Program
September 2004 - December 2005

Pennsylvania State University
Bachelor of Humanities in Communications
August 2000 - May 2002

Harrisburg Area Community College
Associate in Arts, Visual Arts - Graphic Design
August 1997 - December 1999

Target Cost Per Student

Target Annual Instructional Cost/Student: At or below current annual CV instructional cost per student of $7300.00/year.

- 15-24 Students per Cohort
- Our Teacher (Half Day)
- HU Consultant - 3-4 Days Per Week
- Instructor materials
- Technology
- Texts and Materials
- Certification Exam Fees

Additional Cumberland Valley SD Soft Costs Required:

- ► Curriculum Alignment
- ► Marketing IT Careers to Students with an Emphasis on bringing More Young Women into the IT/Tech Fields
- ► Classrooms
- ► Student Management (attendance/ grading / support)
- ► Soft skills training
- ► Technical setup/support
  - ▪ Hardware/Software
- ► Miscellaneous: WiFi, Parking, etc.

Curriculum Alignment: Base Skills and Soft Skills

- Networking
- Social Media
- Résumé and Cover Letter Writing
- Interviewing
- Emotional Intelligence (EI) and Mindfulness
- 23 Core Credits

- Verbal Communication
- Non-Verbal Communication
- Algebra II/College Algebra
- Negotiation and Conflict Resolution
- Overcoming IT Stereotypes

Qualifications for Program Entry Beyond Mastery of Core Curriculum

- **Excellent Analytical Skills**
- **An Attention to Detail**
- **A Commitment to Learning**
- **Good Communication Skills**
- **An Aptitude for Math**

- **The Ability to Learn & Memorize Programming Languages**
- **An Ability to Handle Multitasking**
- **Solid Problem Solving/ Troubleshooting Capabilities**
- **Technical Writing Skills**
- **Versatility**

For those students who are not immediately post-secondary bound this program will make the marketable in positions with mean salaries that are family sustaining. This program will enhance the skills of college bound students and make them marketable if they do not receive a secondary degree.

Hardware/Software Requirements

Hardware

- Student desktop / laptop
- Wired network
- Wireless network
- Routers
- Lab workstations
  - Expansion cards
  - Peripherals
  - Storage devices
  - Printers
- Lab laptops with displays
- Windows server
- Web server

Software

- Microsoft Word 2016
- Microsoft PPT 2016
- Microsoft Excel 2016
- Microsoft Outlook 2016
- Windows Server
- WordPress
- Adobe Dreamweaver
- Adobe Photoshop