CTE Cyber Academic Pathway & ICT Education

Presented by MVUSD Cyber Elite Teams:
Canyon Springs High School
Valley View High School

RCOE Education Summit 2018
October 16, 2018
Why Cyber Education is Important?

Cyber Crime
Damage costs to hit $6 trillion annually by 2021.
Up from $3 trillion just a year ago. This represents the greatest transfer of economic wealth in history.

Cyber Security Spending
To exceed $1 trillion from 2017 to 2021.
Pushed information security (a subset of cybersecurity) spending to more than $86.4 billion in 2017

Cyber Workforce
Triple the number of unfilled cybersecurity jobs, which is predicted to reach 3.5 million by 2021.
Every IT position is also a cybersecurity position now.
Cyber Unemployment Zero Percent

Regional, State, and National Demand

CyberSeek.org

To help close the cybersecurity skills gap, CyberSeek provides detailed, actionable data about supply and demand in the cybersecurity job market.
Our objective is to help develop future cyber professionals by highlighting a pathway that leads students from K-12 to college and into the workforce.
IT TECHNICIAN PATHWAY

Start your IT career in a matter of months

TRAINING  CERTIFICATIONS  EXPERIENCE

Many entry-level jobs in information technology (IT) don’t require a 4-year degree. Get training, get certified and get a job.

PHASE 1
Computer Retail Sales
Learn fundamental IT, business and customer service skills by taking the first six IT Technician Pathway courses and the CompTIA A+ Certification exam.

PHASE 2
Help Desk / User Support
Learn about computer networks, client and server operating systems, and cybersecurity, preparing you for key industry certifications, and job opportunities in Help Desk/User Support.

PHASE 3
IT Technician
Phase 3 adds advanced networking and system administration coursework, work and certifications, which can lead to higher skilled and better paying IT positions.

PHASE 4
IT Specialization
Specialization areas allow you to build upon prior experience, training and certifications by taking courses that teach highly marketable job skills in Cybersecurity and Networking.

It all links together for a career in IT.

https://ict-dm.net/ittp
MVUSD Cyber Academic Pathway

Statistics for:
Academic Diversity

MVUSD Cyber Student Enrollment
CSHS & VVHS

100% Graduation Rate
2015-2018
For All Students

100 98 44 18 4
20 11 32 3
9

Talented General RSP SDC EL

2015/2016 2016/2017 2017/2018
MVUSD ICT Pathway Enrollments
Diversity Among Students

MVUSD Cyber Academic Pathway
Proven Results

Statistics for:
Student Admissions
CCC, CSU, and UC Enrollment

100% Graduation Rate and 100% College Admission/Enrollment
Established a statewide agreement relating to ITTP-Sec courses that have associated C-ID descriptors creating a document that will map the state C-IDs to CSU’s & UC’s respective BS Cybersecurity courses.

Creation of specific “Community College” articulation agreements for those CCCs that have 2-year Cybersecurity programs. This includes GE, lower- and upper-division classes. (8 Colleges and counting)
National University Scholars Program

Provides 100% Scholarship to Qualifying CCC Students

Students transferring from California Community Colleges are eligible to apply for NU Scholars Program.

To qualify, students must:

• Fill out FAFSA for the prior academic year or the California DREAM act application
• Have completed 60 transferable units at community college
• Have a minimum incoming GPA of 2.7
• Have completed GE areas A-F
Encourage CSU system to develop IT and Cybersecurity BS degrees for transfer from CCCs utilizing the established IT and Cybersecurity model curriculum (Maps to ITTP courses)

Working with public and private universities to provide credit for prior work experience and earned industry certifications.

Encourage development of continuing education programs utilizing the California Community Colleges noncredit programs as boot camp style "tech refresh" opportunities for working professionals.
A Collaborative California Partnership

- K12
- CALIFORNIA COMMUNITY COLLEGES
- CALIFORNIA STATE UNIVERSITY
- UNIVERSITY OF CALIFORNIA
- GOVERNMENT
- BUSINESS
Deployed in late 2017. Increased activity for help requests, feedback, and information gathered from the California Cybersecurity community of educators, mentors, and students.
Why is This Important?

California Junior High & High School Students
3,000,000

Junior High & High School Students in Cyber Teams
5,500

Target of .02% of Junior High & High School Students
60,000

Increase Enrollment in Community Colleges & Universities
2018-2024 and Beyond!
IT FUNDAMENTALS STUDENT VOUCHER PROGRAM

A collaboration of California Community Colleges, CompTIA, Practice Labs and ITProTV brings an exceptional opportunity to California high school students to get their first industry recognized certification. This, coupled with cyber competition experience, gives students a head start on a career in IT and Cybersecurity.

REGISTER AS AN ITF VOUCHER CENTER

Registering as an ITF Voucher Center gives you access to:
- CompTIA ITF curriculum,
- Vouchers for Practice Labs simulations and practice exams
- Access to the ITPro TV IT Fundamentals training videos.
You also become a CompTIA exam proctor to administer ITF certification exams.

Register Online At:
https://ca-cyberhub.org/itf-voucher

INDUSTRY PARTNERSHIPS
CCC AND K-12 COLLABORATION
TRACKING AND REPORTING
TEACHER/PROCTOR FACILITATED
FIRST INDUSTRY CERTIFICATION

Valued at $1,200 per student
2018 Proven Results

Master Certified In:
- IT Concepts & Terminology
- Infrastructure
- Applications & Software
- Software Development
- Database Fundamentals
- Security

In 2017, nearly 5.4 million individuals worked as technology professionals across the U.S., representing an increase of 2.1%, or nearly 110,000 net new jobs. The CompTIA IT Fundamentals Certification is the foundational certification for careers throughout the IT Pathway.
“After a year of participating in our Cyber Pathway and CyberPatriot, I feel like I can do anything.”
~Female MVUSD CyberPatriot Senior

“If we see an applicant has CyberPatriot competition participation on their resume’ we hire them regardless of their degree status or certifications. We know they have the collaboration, creative and communication skills to succeed in our company.”
~ Director of Engineering - Cylance
Student Testimonies
Program Impact & Future Plans

Anthony Turpin

Leslie Cunamay
Our students have an unprecedented opportunity to embark on academic and career pathways that are life changing, and make a real impact in our world.

Supportive Collaborative Partnerships & Initiatives

Deputy Director for Legislative Affairs
– Maricela Gomez

Deputy Director, Small Business Advocate, Governor’s Office of Business and Economic Dev
– Jesse Torres

California Department of Technology Director
– Amy Tong

California Cyber Security Integration Center
– Keith Tresh
NON-FACULTY COMMUNITY COACHES

LEVERAGE EDUCATORS AS MENTORS

CONNECT COACHES WITH ADVISORS

CYBERHUB HELP DESK & KB

Any county and district employee can sign-up for FREE professional development and training

MVUSD has 7 new schools starting their Cyber Academic Teams & Programs

"Competitions teach valuable skills and character traits and are an effective tool in educating secondary students in cybersecurity."

THE SESSIONS INCLUDE:
- Real-time data on cyber attacks around the world
- Online CyberPatriot curriculum and modules
- ICT Course Pathways and college articulation
- Coaching strategies and annual planning
- Educational grants and sector funding, state and civic partnerships

California has a shortage of trained cybersecurity and IT workers and 35,000+ jobs available.

Helping middle and highschool students to get involved in cyber competitions exposes them to opportunities to find fulfilling careers in cybersecurity and IT.

Request a session in your area at http://ca-cyberhub.org/coach-train
RAISE YOUR HAND AND
BE PART OF THE SOLUTION!
Tell Us What You Are Doing

Twitter
twitter.com/cacyberhub

LinkedIn
linkedin.com/company/ca-cyberhub/

Facebook
facebook.com/cacyberhub/
Model of Excellence & Academic Innovation
MVUSD Cyber Academic Pathway

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