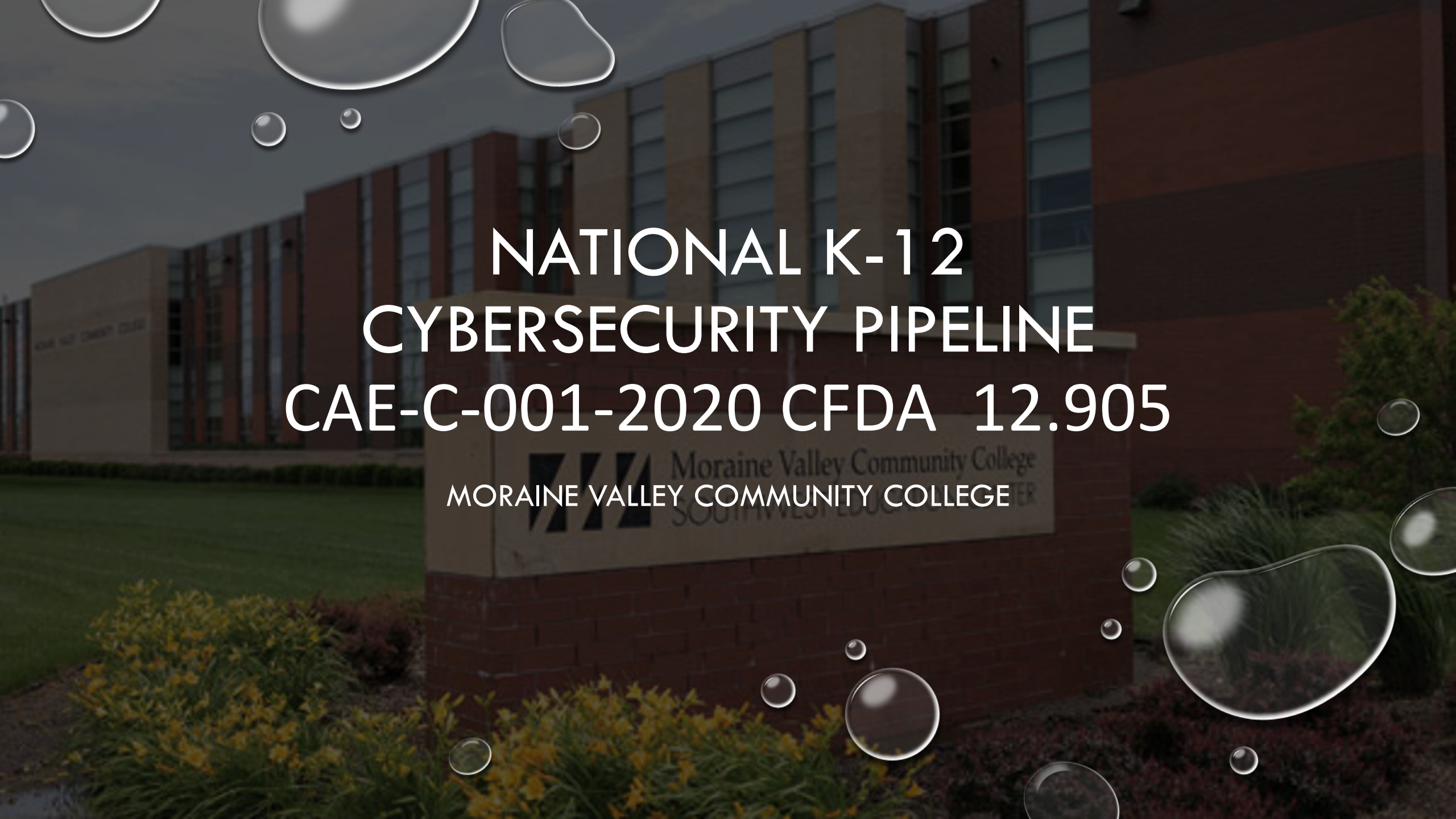


NATIONAL K-12 CYBERSECURITY PIPELINE CAE-C-001-2020 CFDA 12.905

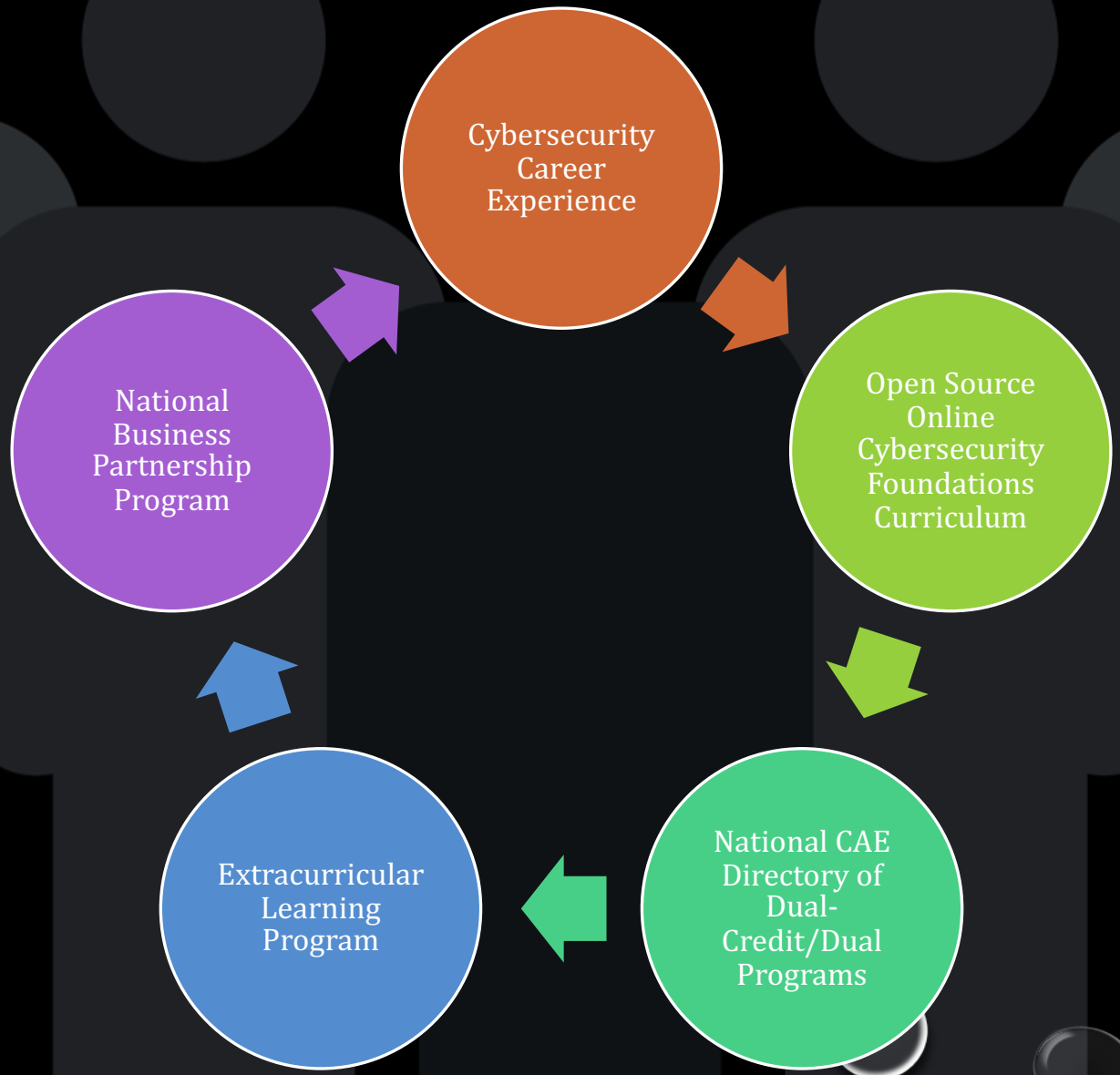
MORAINE VALLEY COMMUNITY COLLEGE

RATIONALE

OUR PROPOSED **NATIONAL K-12 CYBERSECURITY PIPELINE** INITIATIVE WOULD PROVIDE SEVERAL BENEFITS TO THE NATION AND CAE-C COMMUNITY:

- INCREASED NUMBER OF STUDENTS INTERESTED IN CYBERSECURITY CAREER PROGRAMS
- PROVIDE NEW OPPORTUNITIES FOR K-12 STUDENTS INTERESTED IN CYBERSECURITY CAREERS
- ESTABLISH AN EARLIER START PROGRAMS FOR STUDENTS PURSUING A CYBERSECURITY PROGRAM OF STUDY
- PROVIDE TUITION SAVINGS FOR STUDENTS AND PARENTS (ELIMINATE ENROLLMENT REPETITION BETWEEN K-12 AND COLLEGE COURSEWORK)
- INCREASED MATRICULATION AND RETENTION BETWEEN K-12 AND COLLEGE CYBERSECURITY PROGRAMS
- CREATE A MORE DIVERSE NATIONAL K-12 CAE-C PIPELINE

PROGRAM INITIATIVES

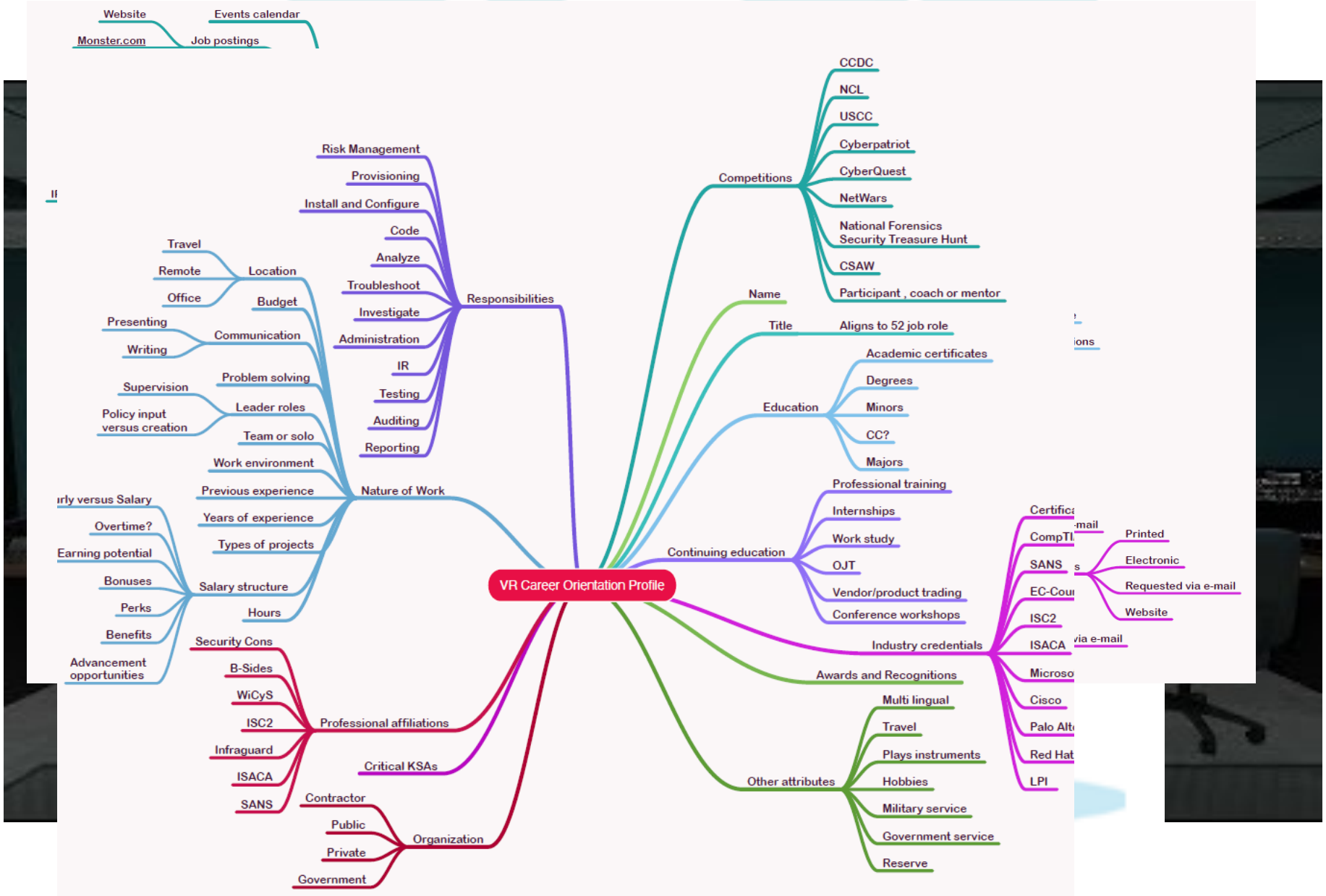


The Environment

Cyber Hero Avatars

Challenges/Easter Eggs

VR Demo



CYBERSECURITY FOUNDATION COURSE

FOUNDATIONAL KUs

- Cybersecurity Foundations
- Cybersecurity Principles
- IT Systems Components

FULLY COVERED

TECHNICAL CORE KUs

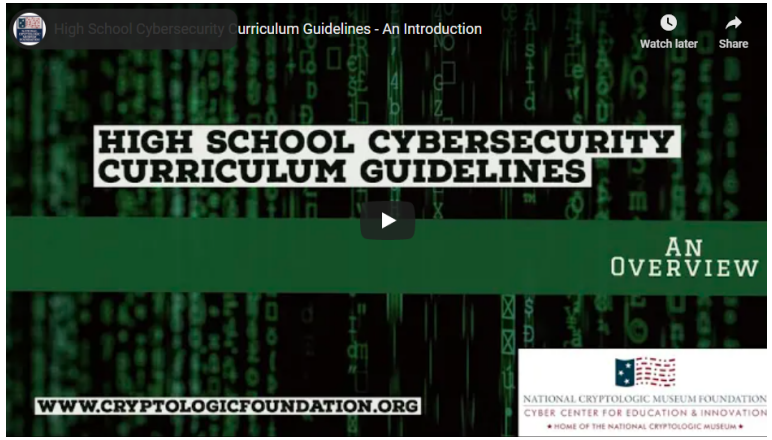
- Basic Cryptography
- Basic Networking
- Basic Scripting & Programming
- Network Defense
- Operating Systems Concepts

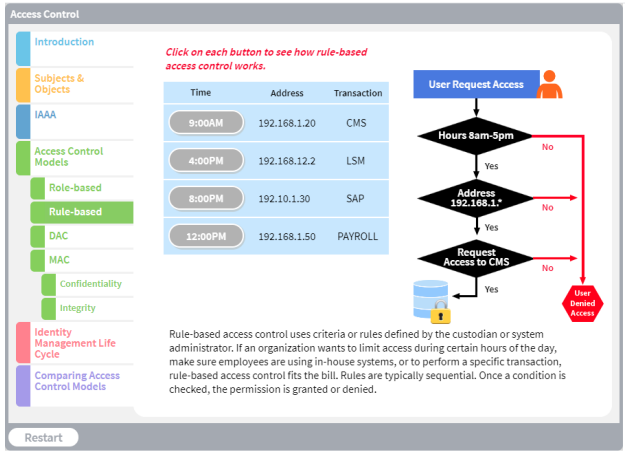
PARTIALLY COVERED - INTRO LEVEL

NON-TECHNICAL CORE KUs

- Cyber Threats
- Cybersecurity Planning & Management
- Policy, Legal, Ethics, & Compliance
- Security Program Management
- Security Risk Analysis

PARTIALLY COVERED - INTRO LEVEL





NATIONAL DIRECTORY OF DUAL CREDIT/DUAL ENROLLMENT PROGRAMS

National Directory of colleges and universities currently offering high school articulation programs.

Institutions interested in providing Dual Credit/Enrollment opportunities in the future.

Promoted to all student participants and CAE institutions with a focus on students or youth in rural and under-resourced school systems, home-schooled students, and those attending schools without a cybersecurity program.

After-school Programs
Honors Programs
Competitions
NATIONAL CYBERSECURITY EXTRA-CURRICULAR PORTAL AND BI-WEEKLY LIVE WEB SHOW
Student Organizations
Cybersecurity Events
Workforce Opportunities

BUSINESS AND INDUSTRY PARTNERSHIP

- BUSINESS PARTNERS
- CISCO SYSTEMS, PALO ALTO NETWORKS, EMC DELL, VMWARE, LINUX PROFESSIONAL INSTITUTE (LPI), COMPTIA, ISC2, NDG, AND OTHERS
- PROVIDE THE STUDENTS PARTICIPATING IN THIS PROGRAM WITH A WEALTH OF SUPPORT AND RESOURCES:
  - INSTRUCTIONAL MATERIALS
  - SPONSORED EXAM VOUCHERS
  - ACCESS TO PRODUCTS AND SERVICES
  - SUBJECT MATTER EXPERTISE AND JOB FAIRS
  - FREE ACCESS TO THEIR EXTENSIVE PORTFOLIO OF ONLINE CYBERSECURITY CURRICULUM
  - ACCESS TO VIRTUAL CYBER RANGES, SIMULATORS AND WORKFORCE EXPERIENCES IN THE CYBERSECURITY INDUSTRY