PLTW Cybersecurity
2020-21 STEM Scale-Up Program

Grade Levels: 9-12

Information Sessions: https://tinyurl.com/IowaPLTW
Website: https://www.pltw.org/our-programs/pltw-computer-science-curriculum#curriculum-4
Video Link: https://youtu.be/DK3oaCDOU4g

Award Provides:
Access to Project Lead The Way's PLTW Cybersecurity curriculum and to all PLTW Computer Science program features including:

Connections with PLTW teachers both in Iowa and across the country through training and online forums

End-of-Course Assessment, a first-of-its-kind assessment measuring both technical and in-demand skills.

Ongoing access to teacher resources and learning opportunities and 24/7 school and technical support

Required software licenses

$3,000 cash award to schools with new PLTW Computer Science programs implementing the Cybersecurity course to be used solely for professional development and associated equipment & supplies

Additional Cost(s) to Awardee In 2020-21:
Travel & lodging necessary to attend PLTW Core Training *if applicable*

Course equipment & supplies

Approximate Sustainability Cost After Award Period:
Annual PLTW Participation Fee for PLTW Computer Science ($2,200)

Equipment and supplies including: Network Security Lab annual hosting fee ($1,000) - an innovative, web-based virtual system isolated from the classroom and school network

Annual cost of consumables ($180.25 per section of the course offered)

Program Summary:

Cybersecurity— the newest offering within the PLTW Computer Science program — turns a national problem into student opportunities. The course introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Students solve problems by understanding the vulnerability of computational resources and closing these vulnerabilities.

The course is designed to expose high school students (grades 9-12) to the far-reaching field of cybersecurity by providing relevant learning experiences where they train for and solve real-world problems. It integrates standards from Iowa Core Mathematics and Literacy Standards, the recommended Iowa Computer Science CSTA Standards, and the Iowa 21st Century Skills through each of the four units.

Below are related course documents:
Course Overview
Course Outline
Course Resume

For more information, please contact Vic Dreier at vdreier@pltw.org.

Requirements to Implement the Program:
Educator(s) must participate and successfully complete PLTW's Cybersecurity Core Training.

An agreement and participation form indicating participation in PLTW Computer Science signed by the building administrator is required before receiving training or materials.

Professional Development:
In order to implement Cybersecurity, teachers will need to participate and successfully complete PLTW's Cybersecurity Blended Core Training.

Blended Core Training combines both in-person and online core training experiences. This model consists of a five-day immersive, in-person Core Training during the summer and ongoing, job-embedded, online support continuing during implementation of the curriculum.

The in-person portion of Cybersecurity Blended Core Training will take place July 20- 24, 2020 at the Heartland Area Education Agency in Johnston, Iowa. Online, job-embedded training will continue over the course of the school year.

STEM Scale-Up Program Application Link: www.IowaSTEM.gov/Scale-Up-Application