

**National Science Foundation Advanced Technological Education
Reach for the Cloud: Building an Industry-Aligned Pathway to Careers in Cloud Computing Project**



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Project Overview

Columbus State Community College and Northern Virginia Community College in partnership with Amazon Web Services (AWS), industry partners, regional high schools, and partner universities will establish an industry-aligned pathway in cloud computing to increase the supply of qualified technicians with proficiency in cloud technology. NOVA and CSCC are strategically located in markets where the technology sectors have shown significant demand for cloud-certified IT professionals. Collaboratively-developed and industry-led curriculum in cloud computing will lead to the Cloud Fundamentals Certification, stackable toward an Associate of Applied Science with Cloud Specialization. This project will collaborate with the currently funded Creating Learning Opportunities for Undergraduates in Developing Technologies (CLOUDTech) Project (1601166) at Trident Community College, leveraging created labs and sharing curriculum development best practices. The primary target audience for the project will be two-year college students.

The Reach for the Cloud: Building an Industry-Aligned Pathway to Careers in Cloud Computing project will create the following **four deliverables**:

1. New, collaboratively-developed and industry-led **curriculum in cloud computing** including foundational courses leading to the Cloud Fundamentals Certification, stackable toward an Associate of Applied Science with Cloud Specialization. The new curriculum will include digitized content and experiential learning through a capstone course.
2. **Cloud Literacy Initiative** to facilitate the education pipeline from high school to community college. The curriculum will be designed to allow students to maintain their weekly responsibilities and allow time for planning, research and class preparation as a college course would be delivered.
3. **Professional Development community of practice** for high school and community college faculty to share best practices for cloud credential mapping and educator training.
4. **Veteran Outreach Plan** to attract active and former military into the cloud technology program.

The impact of cloud computing has not gone unnoticed by the IT and business community. In a survey of Tech Chief Financial Officers, cloud computing was selected by 74% of those surveyed as being the most impactful technology on their business in 2017. The project is based on focus group sessions with IT industry representatives to determine the knowledge, skills, and abilities of IT technicians. Several central high schools and universities will be involved in the project to develop a 2+2+2 pathway that begins in high schools and culminates in a baccalaureate degree. The project will develop several products that will be disseminated to other institutions including: a new industry-led curriculum in cloud, cloud literacy initiative, professional development community of practice, and an outreach plan for military veterans. The evaluation plan, led by Hezel Associates, will analyze each program. Formative evaluation will be used to make any needed project changes and results data will be widely disseminated.