

Northern Virginia (NOVA) Community of Practice –  
Educator Professional Development

NSF ATE Reach for the Cloud: Building an Industry-Aligned Pathway to Careers in Cloud Computing

Principal Investigator: Michael Greer

Co-Principal Investigator: Josh Labrie (Co-PI)

Contents

Educator Professional Development Flyer



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## Virtual STEM Educator Professional Development

### OVERVIEW

NOVA SySTEMic is committed to providing ongoing STEM professional development opportunities for elementary, middle, and high school teachers in the Northern Virginia region during the COVID-19 pandemic. **FREE** professional development opportunities are provided in the areas of **Fabrication, Programming, and Information Technology**. Professional development focuses on skills training and application. Additional time is provided for discussion. All participants receive a certificate of attendance for the number of sessions attended in each series. Sessions are hosted via Zoom. Register at: <http://teacherpd.novastem.us/Register>

### SPRING 2021 VIRTUAL PD OFFERINGS

#### **Easel: Understand tool-pathing for CNC carving**

Monday, March 8<sup>th</sup> from 4:00-6:00pm

Learn the basic technology on how CNC carving works while designing an ink stamp using a free, web-based software called Easel. This session is recommended for educator's that have access to a Carvey® desktop CNC router and can provide a similar learning experience to their students. The session will model and emphasize tips and tricks for virtual instruction using this software. Time for pedagogical discussions and student/instructor guides will be provided. Two-hour session.

#### **Introduction to Coding with Scratch**

Wednesdays: March 3<sup>rd</sup>, 10<sup>th</sup>, 17<sup>th</sup>, & 24<sup>th</sup> from 4:30-6:00pm

This **four-part** series will help elementary and middle school educators learn the simple Scratch drag-and-drop block language. Sessions will focus on how to teach the topic, including the tricks and traps from the presenter's 15 years of teaching programming. All attendees will be provided the textbook, *Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math*, upon completion of the course. Attendance at all sessions is highly encouraged, though not required. Course is limited to 15 participants.

#### **Game-based Introduction to Python**

Wednesdays: April 7<sup>th</sup>, 14<sup>th</sup>, 21<sup>st</sup>, & 28<sup>th</sup> from 4:30-6:00pm

This **four-part** series will provide K-12 educators an introduction to the Python programming language. Python is used to develop software on the web and in app form, including mobile. It's easy to learn, and is used to process text, display numbers or images, solve scientific equations, and save data. Educators will learn the basics of Python by creating simple games such as Mad Libs, Text Adventure, Guessing Game, and Hangman. Completion of the entire series is highly recommended. Course is limited to 20 participants.

#### **Introduction to Cloud Computing**

Thursdays: April 8<sup>th</sup>, 15<sup>th</sup>, 22<sup>nd</sup>, & 29<sup>th</sup> from 4:00-5:30pm

This **four-part** series is geared towards high school educators and will address the following topics: 1) What is Cloud computing?, 2) What are the advantages of cloud computing over traditional computing and networking models?, 3) What are the different deployment models of cloud computing?, and 4) What are the Economics of cloud computing? Different cloud vendors will be analyzed. Free resources for students and industry certification information will also be shared. In addition to lecture, educators will be able to work on labs using a variety of AWS cloud services.

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