NM Computer Science Professional Development Week!

Organized by Computer Science Alliance and many fantastic partners!

A **5-day PD workshop, June 3-7th, 2019** for ***a statewide Computer Science (CS) Professional Development (PD)* week**. There are offerings for teachers that are new to CS as well as for experienced educators to learn advanced topics such as Java and database structure.

For more information or to register to be a part of the NM CS PD Week at nmcspdweek.com

What you could learn: *(teachers will sign up for **one strand for the entire 5-days**, no prior experience needed)*

CS PD strand	Description	Target Audience
CS Medley	Use Scratch, a free platform for creative coding, to integrate into existing lessons and learn how Micro:bits (a microcontroller) can be used to extend the creativity and integrate into science class or clubs.	Any ES or MS teacher, technology teacher, digital learning coach or librarian
CS with Robots	Junior Botball Challenge curriculum engages students in a team-oriented robotics competition, and serves as a perfect way to meet today's new common core and NGSS standards.	Upper ES & MS teachers
Math with CS	Bootstrap curriculum has lessons that fully integrate CS into math classes and target pre-Algebra and Algebra. In addition, part of the Data Science course will be covered.	MS and HS math teachers
Science with CS*	Project GUTS is a free computational modeling curriculum aligned to NGSS. It has 4 modules- Intro, Earth, Life & Physical Science. *Registration fee covered for qualifying participants.	MS Science & Technology teachers
Middle School CS *	Code.org's CS Discoveries is a free curriculum and can be taught as a year-long or semester class. *Registration fee covered for qualifying participants.	Middle school elective and/or technology teacher
Cybersecurity	Learn curriculum developed at Sandia National Labs to teach cybersecurity in an active, project-based learning approach. Learn from Cybersecurity professionals to get up-to-date info on topics.	MS & HS teaches
Art with CS	Learn how to use Processing, a free programming tool for graphic arts, to bring computer science into the art class.	MS & HS art teachers and technology teachers
High School CS	NM CS of All is a dual-credit class with a focus on computational modeling in a flipped-classroom method using NetLogo. A great complement to Supercomputing Challenge.	HS teachers, possibly for a HS science class
CS Principles *	Code.org's AP CS Principles is a free curriculum that aligns to the new College Board AP CS Principles course. *Registration fee covered for qualifying participants.	HS teachers
Java Fundamentals	An introduction to programming with Java. These free resources are great to get started with a Java class or as supplements to an AP CS A class. Can also be part of a pathway leading to industry certification.	HS teachers/Higher Ed Faculty
Database	Database Design and Programming with SQL is the 2nd in a series of pathway courses leading to an industry certification from Oracle in Database. Data Base Foundations, the 1st course, can be accessed online.	HS teachers/Higher Ed Faculty
CS with microcontrollers	Using Arduino, participants will learn about microcontrollers and how to use sensor inputs to make it respond and give output. Lots of CS and engineering concepts are part of this approach.	MESA advisors, MS & HS science & engineering teachers
Internet of Things	Use Raspberry Pis to understand how the Internet of Things and smart devices can be programmed using Python and be interactive with sensors & connections to wifi.	MS & HS teachers

Computer Science Alliance ***Expanding Computer Science one student, one teacher, one school, one partner at a time.***

When & Where: June 3-7, 2019 at UNM's School of Engineering, 8:30-4pm

Costs:

- Registration & meals (breakfast & lunch) during the 5-day PD workshops:
  - **$300 for CSTA+ members, $350 for non-members** *(*some strands are free, supported by other funds, Supercomputing Challenge has scholarships for certain strands as well.)*
- Teacher travel & expenses (hotel, etc.)
  - Teachers from beyond 50 miles will be eligible to apply for travel expense scholarships if their district cannot fully cover this expense.

Why it's needed:

Most New Mexico schools are unable to offer CS classes because they do not have anyone on staff that feels comfortable to offer a club let alone teach a CS class. There is a critical need for professional development for teachers in CS and there are too few opportunities for this type of learning in NM. **We want to offer high-quality PD that showcases the best practices and best curriculum examples out there! After a week of CS PD, teachers will be able to bring computer science to their students with authentic activities and curriculum.**

Other partners for this event include:

Research Labs	AFRL Air Force Research Laboratory New Mexico; Sandia National Laboratories
Higher Education	UNM School of Engineering; NM State Department of Computer Science www.cs.nmsu.edu; Northern New Mexico College Est. 1909; CNM Central New Mexico Community College
Industry	Descartes Labs; NMTC new mexico technology council; DataONE
Education organizations	LANL 20 Years Foundation Investing in Learning & Human Potential; NMPED Public Education Department; iexplora! Ideas You Can Touch Ideas que puedes tocar; New Mexico MESA, Inc.; Project GUTS; New Mexico TechWorks; Oracle Academy; Supercomputing Challenge; Community Learning Network

Register to be a part of the NM CS PD Week at nmcspdweek.com
Or register directly from this link

For more information, contact Paige Prescott or Yolanda Lozano of Computer Science Alliance
info@computersciencealliance.org

Computer Science Alliance **in collaboration with** CSTA New Mexico

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