

ARCS NEWS

Advancing Rural Computer Science

Brought to you by The Center for Educational Partnerships at Old Dominion University

VOL. 3, ISSUE 5

FEBRUARY 2024

Announcements

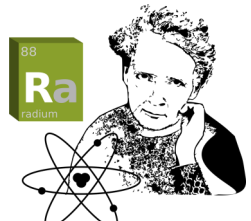


Greetings!

Welcome to our February newsletter! This month, we delve into the exciting realm of *career connections* in the field of computer science. Whether a seasoned professional or just starting out, we explore opportunities for networking, skill-building, and professional growth within the dynamic landscape of technology and computer science.



This month is often associated with love and celebration, primarily due to Valentine's Day on February 14th. It's a time for expressing affection and appreciation for those we care about. Additionally, in some cultures, February also marks the beginning of various traditional celebrations and festivals. Join us as we celebrate Black History Month with [Code.org](https://code.org), [International Day of Women and Girls in Science](https://www.un.org/en/observances/11feb) the United Nations on February 11, and [Introduce a Girl to Engineering Day](https://www.discoverengineering.com) with Discover Engineering on February 22.



Thank you to everyone in the current cohort that submitted the computer science implementation survey prior to January 22, 2024. If you received a recent email from Dr. Jennifer Maeng of the University of Virginia this January, please take a moment to complete the survey by following this link: https://virginia.az1.qualtrics.com/jfe/form/SV_dg2hNANPws63HVK. It will take about 10 minutes of your time and asks about your computer science implementation from the beginning of the 2023 school year up to winter break.

Thank you for your time. Please let us know if you have any questions.

The ARCS Team

Concept Corner



Computer science is a booming, high-paying field with a vast array of career paths. According to the Bureau of Labor Statistics, the job growth outlook in this sector from 2020 to 2030 is 22%, which is much faster than average.

Depending on their chosen path, workers can find themselves animating the effects for a movie, protecting the environment through the analysis of scientific data, or ensuring national security. Nine out of ten computer science positions require a bachelor's degree. Virginia's colleges and universities provide in-person and online programs in applied computer science including cybersecurity, data analysis, data science, software engineering, and many others.

[Computer and Information Research Scientists : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics \(bls.gov\)](https://www.bls.gov/occupational-outlook-handbook/)

[IT vs. Computer Science: Which Degree Is Right for You? \[Infographic\] | Rasmussen University](https://www.rasmussen.edu/degrees/computer-science/infographic/)

Pedagogy Pointers



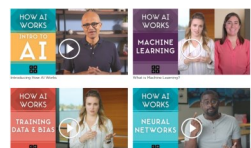
[CS Journeys](https://www.csjourneys.org) is an easy-to-use resource designed by Code.org to help students make real-world connections and give them opportunities to explore different career pathways. On the website you will find...



Virtual events: CS Journeys offers virtual field trips and opportunities for students of all ages to hear from real professionals in the field speak on what having a career in a computer science field really involves. Students can board NASA's Orion spacecraft and discover the inner workings of the technology that flew to the Moon or hear from a pipeline technical director who helped create visual effects for movies such as Star Wars: The Last Jedi. Use these engagement opportunities to excite and inspire your students to keep learning CS! While there are no Virginia standards for the impact of technology on work for K-1, the virtual chats are open to these grades as well. Aligns with CS 2.13, 3.14, 4.15, and 5.14.

[Virtual field trips and career chats](https://www.csjourneys.org/virtual-field-trips/)

[Exploring Computer Science with Younger Students](https://www.csjourneys.org/younger-students/)

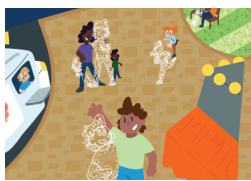


Videos and materials: CS journeys also provides videos and classroom posters that feature people who work in computer science as well as familiar famous faces encouraging students to consider computer science careers. Many of these materials align with culturally responsive teaching principles, such as providing role models that students can relate to and identify with. Aligns with CS 2.13, 3.14, 4.15, and 5.14.

[Careers with Computer Science](https://www.csjourneys.org/careers-with-computer-science/)

[Computer Science posters](https://www.csjourneys.org/computer-science-posters/) — Print these posters to inspire your students to try computer science.

Computer Science in the Commonwealth



Computer science (CS) integration at the K-5 level is essential in expanding opportunities for students to explore and enter computer science pathways at the 6-12 level. There are two primary CS pathway options. Students can explore a computer science pathway or a career technical education (CTE) computer science career-focused pathways. Courses within the computer science pathway include but are not limited to AP Computer Science A, AP Computer Science Principles, Computer Science Foundations, and Computer Science Programming-NonCTE. Courses within the CTE pathway include but are not limited to AP Computer Science A, Programming, and Game Development. CS pathway decisions should be made through a comprehensive review of students' interests and long-term goals/plans.

Engaging All Learners



Career exploration and preparation is often featured at the secondary level, but it is never too early to spark interest in career pathways. Because we know that females and people of color are underrepresented in career pathways in STEM (including computer science), it is important to incorporate activities at the elementary level to engage these students in career-themed investigations and activities that promote curiosity and provide enrichment experiences. Ideally, these activities and experiences should incorporate a cultural component to support interest in innovative, STEM careers, perhaps through female and minority role models. iD Tech offers a suite of free resources for educators, parents and students that can provide hands-on experiences through a variety of options, including multimedia presentations, interactive platforms, and unplugged crafts to learn about STEM contributions made by groundbreakers, inventors, and changemakers of color – both modern day and throughout history. [Click here](https://www.idtech.com) to explore these resources and learn more about how you can use them to ignite discussions on career pathways in your classroom.

United States Education Department Grant U411C190032. The contents of this newsletter were developed under a grant from the Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Old Dominion University

The Center for Educational Partnerships

Have a question or feedback for us? Email TCEP@odu.edu

Website: <https://www.odu.edu/tcep/arcs>

Tel: 757-683-5449