

The Rowan University Computer Science Hub (RUCSH) will use a multi-faceted approach to address the needs of K-12 educators and their students and families throughout Southern New Jersey (SNJ). To increase the number of educators who are well prepared to teach CS, we will provide professional development (PD) in SNJ to three cohorts of educators spanning K-12 using nationally vetted curricula developed by Code.org. All PD will include both summer workshops and follow-up contact throughout the school year.

To infuse CS content into pre-service teacher preparation programs, faculty members from Rowan's STEAM Education and CS Departments will develop an Introduction to Scratch Programming module suitable for integration into a required Educational Technology (ET) course for all Rowan pre-service teachers. The module will be piloted in several sections of ET in 2021-2022.

To expand equitable access to high-quality CS education for all K-12 students and to provide resources to schools and districts, RUCSH will establish the Rowan University Computational Lending Library (RUCLL). All SNJ educators will be able to borrow digital manipulatives (DMs) for instruction and outreach activities. RUCSH will also provide PD workshops on these DMs, and a reservation system to enable educators to plan for their use.

The DMs will cover the full K-12 spectrum, specifying the K-12 CS Standards met. "Classroom kits" will be created that can support one DM-per-student for safe social distancing based on targeted grade levels' class sizes. Rowan's Wellness Center and Department of Environmental Health and Safety will work with RUCLL to establish protocols regarding appropriate holding periods and cleaning procedures between loans.

RUCSH will also curate a list of resources for "teaching and learning CS while social distancing." This will include existing online and "unplugged" content that work well in socially distant settings as well as offer simple modifications to other content to facilitate its use. RUCSH will offer a PD "train the trainer" workshop in this topic to curriculum supervisors and administrators. RUCSH will also offer an outreach event for students and families.