

Statewide STEM opportunities in Louisiana: Collaborative Initiatives by LA STEM's Capital Area STEM and LSU's Cain Center for STEM Literacy



Gordon A. Cain
Center for STEM Literacy

Introduction

In 2020, the Louisiana Board of Regents created LASTEM, a system of STEM leadership entities strategically positioned across Louisiana, identified by the Louisiana Workforce Commission, whereby multi-parish regions and the State can achieve improved access to STEM education, participation, and advancement.



The Capital Area STEM Network, region 2, is hosted by Louisiana State University's Gordon A. Cain Center. Our collaborative initiatives promote STEM through a network of educators, professionals, and community leaders. Through partnerships with industry and community leaders, we are able to offer a variety of opportunities to learners of all ages.

Our Initiatives

Professional Development Opportunities

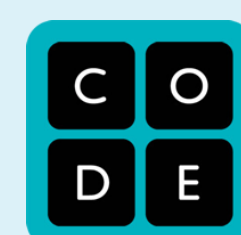
Ignite Elementary Computer Science

A 40-hour workshop that focused on the fundamentals of computational thinking and computer science for Louisiana's K-5 teachers in public and public charter schools. Using the train-the-trainer model, over 700 elementary school teachers prepared to implement computer science principles across the state.



Code.Org K-12 Computer Science

Capital Area STEM is the regional partner for Code.org® which is dedicated to the vision that every student in every school can learn computer science as part of their core K-12 education. Code.org organizes the annual *Hour of Code* campaign, which has engaged more than 15% of all students in the world.



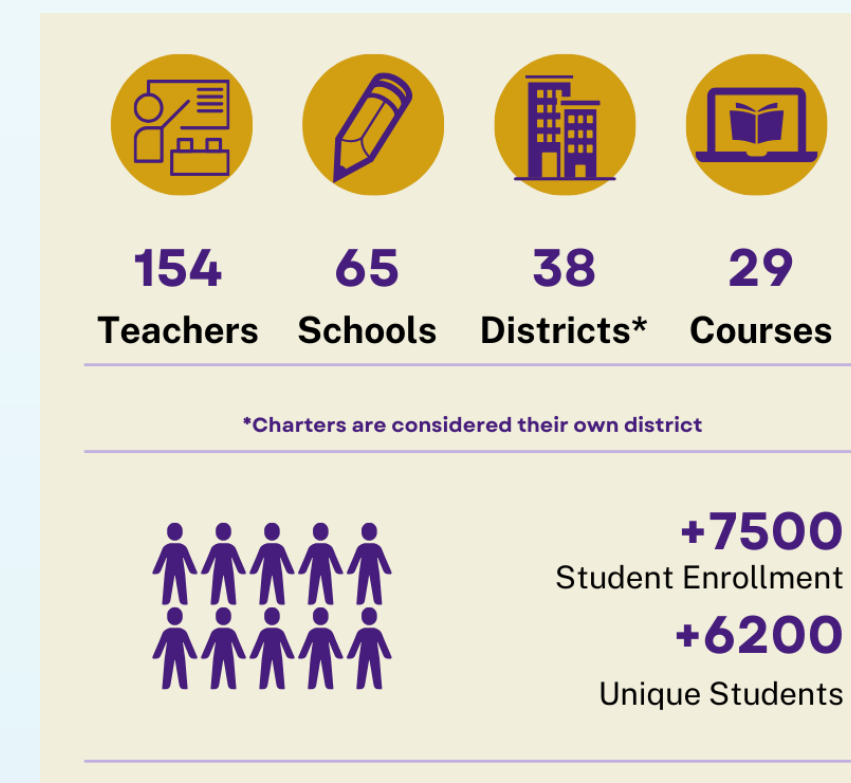
CTE Professional Development

Collaborating with the Louisiana Department of Education, representatives from CASN and LSU's Cain Center spoke to local career and technical education teachers about leadership, project-based learning, and making connections to mathematics.



LSU STEM Pathways

LSU Pathways is a program designed for K-12 students in the public school system to get hands-on training with STEM subjects in healthcare and veterinary sciences, computing and cyber security, digital design and emergent media, pre-engineering, and environmental sciences. LSU partners with schools across the state to prepare teachers for the curriculum.



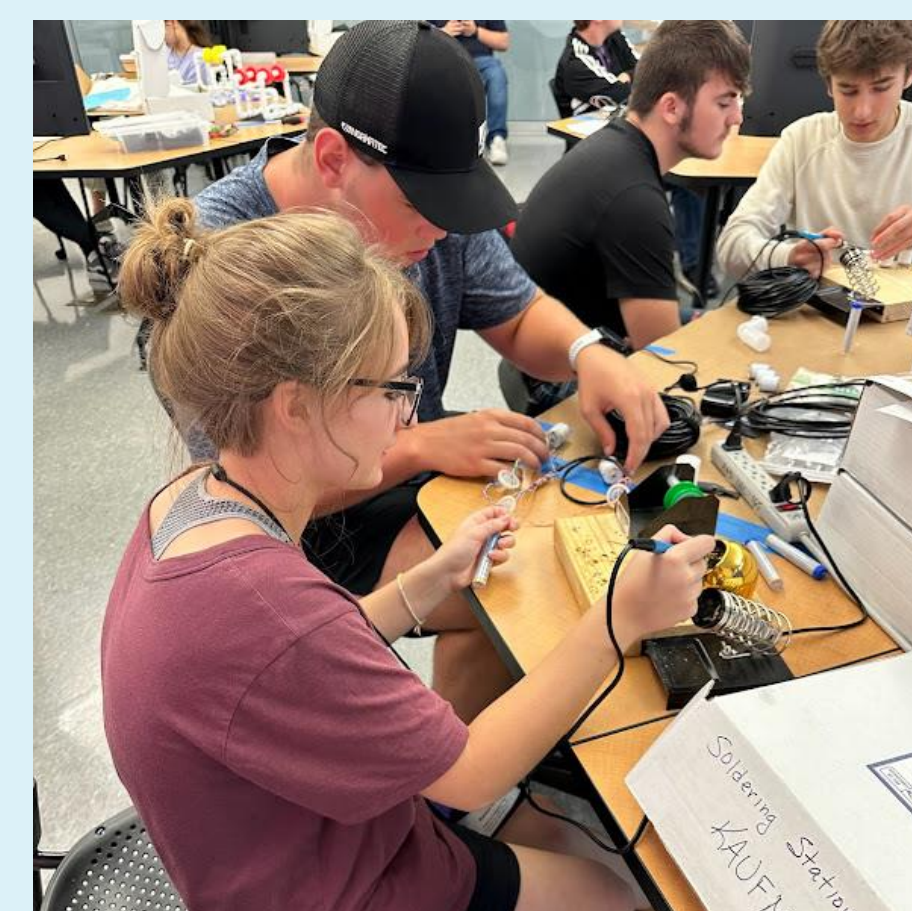
Student Opportunities

Choice - Dual Enrollment for High School

LSU's Choice Credit for College Learning Program offers all high-school learners affordable access to college-level courses in an entirely no-risk environment. Available course options include courses in biology, engineering, history, mathematics, music, and natural resources.

Summer Academy

LSU Cain Center's specialized two-week non-credit camps designed for students entering grades 9-12 who have an interest in science, technology, engineering, and math. These camps provide a unique opportunity to expand your STEM knowledge and skills while building connections with fellow aspiring scientists and engineers.



Competitions

VEX Robotics

VEX competitions foster engineering skills and capitalize on the motivational effects of competitions and robotics to help all students create an identity as STEM learners. This year the regional and state competitions will be hosted on LSU's campus.



Sea Perch

At SeaPerch, teams show off their engineering skills through technical papers and presentations. In the pool, they navigate their SeaPerch through a series of obstacles inspired by the real world that test maneuverability, control, and utility.

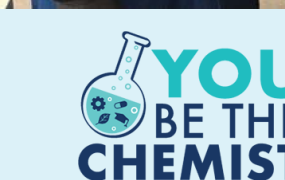


State Rally

The Louisiana High School Rally Association (LHSRA) is an educational association for middle and high school students who are recognized by the Secretary of State. Louisiana colleges and universities coordinate the district competitions each year with the state competition being held at LSU. Competitions include assessments in core subjects such as math, English, and science as well as showcase students' abilities in the arts such as choir and theatre.

You Be The Chemist

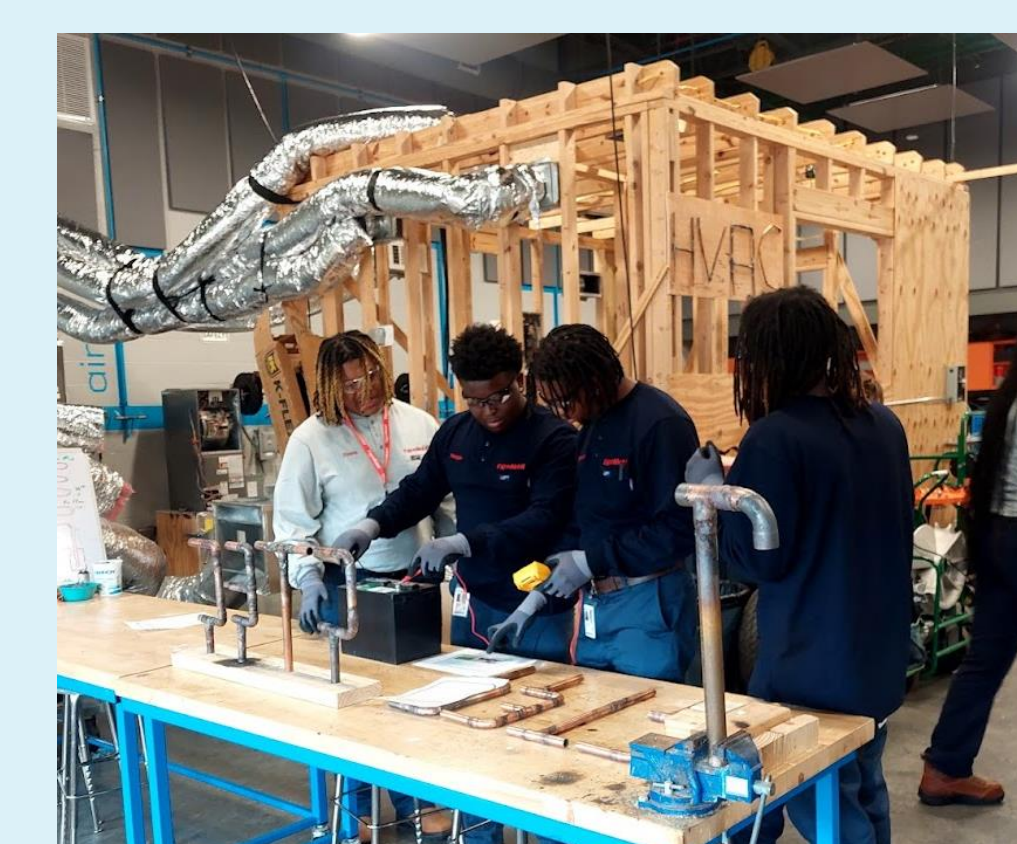
Students explored the wonders of chemistry, showcasing their knowledge, and even had the chance to witness mind-blowing demos and tour the LSU Chemistry facilities.



Community

Exxon Mobil Escape Room for Interns

In collaboration with Exxon Mobil and East Baton Rouge's Career and Technical Education Center, CASN hosted a STEM escape room that gave Exxon interns the opportunity to engage in challenging tasks in a fun and unique setting.



Spark for Single Moms

The Spark Your Summer program, presented by Capital Area STEM Network, hosted by East Baton Rouge Parish Library, and funded by the Campos Foundation was designed to empower and uplift single mothers, particularly those within the ALICE (Asset Limited, Income Constrained, Employed) demographic. The program aims to foster self-sufficiency by equipping single mothers with critical knowledge and practical skills in hand tools, automotive, HVAC, and electrical.



Advocacy



CASN's Director, Summer Dann, along with directors from other regions attended STEM Day at the Louisiana capital to showcase LASTEM's achievements and activities.



The LASTEM team visited Capitol Hill in D.C. to advocate for STEM education and workforce development! Engaging discussions with Louisiana Senators and Representatives focused on empowering the STEM workforce.

Conclusion

The collaborative initiatives of Capital Area STEM Network and LSU's Gordon A. Cain Center impact children and adults through a wide range of STEM opportunities. Our partnerships with industry and community fellowships have allowed for diverse offerings reaching thousands of people in the state. It is our hope to continue advocating for the participation and success of STEM education and workforce development for all.

Check out our website:

