



1st Quarter LaSTEM Advisory Council Meeting
Louisiana Arts and Science Museum
1/31/2023

Today's Agenda

- **9:00 am - Welcome and Roll Call**
 - Cathi Cox-Boniol, Region 8 STEM Center Director
 - Tracey Barhorst, Interim Curator and Public Programs Manager, LASM
- **9:10 am - Approval of Quarter 4, 2022 LaSTEM Council Minutes**
- **9:15 am – Introduction of new LaSTEM Advisory Council Member**
 - Dr. Francesca Mellieon-Williams (Southern University, Faculty)
 - Mr. Brian Davis (Louisiana Association of Business and Industry)
- **9:25 am Introduction of Otey White and Associates/The Communication Institute (TCI Consults)**
- **10:45 am – break**
- **10:55 am - FY22-23 Appropriations to the Regional STEM Centers (Statewide initiatives)**
 - Summer Dann - Region 2 Director
 - Cathi Cox-Boniol - Region 8 Director
- **11:30 am – Other Business and Adjournment**
- **11:45 am - Lunch**
- **12:45 pm- Council Tour of VISTA Exhibit and LASM**

Welcome from Cathi Cox-Boniol,
SCILS Region 8 STEM Director



Welcome from Tracey Barhorst

Interim Curator and Public Programs Manager, LASM



LOUISIANA
ART &
SCIENCE
MUSEUM

Agenda Items

- Roll Call
- Approval of Quarter 4, 2022 Advisory Council Meeting Minutes
- New Members on the Council

Agenda Items

Approval of Minutes

4th Quarter LaSTEM Advisory Council Minutes

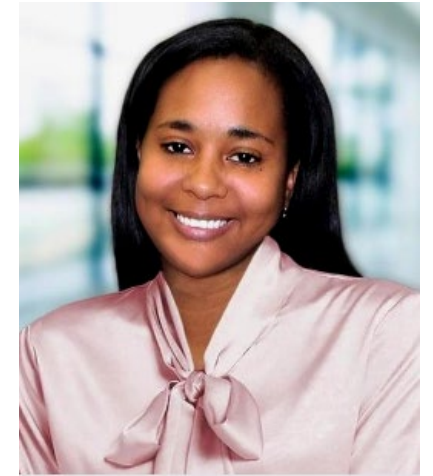
Welcome New Council Members!

Dr. Francesca Mellieon-Williams, representing one of two higher education faculty position on the council, currently serves as Associate Professor, Science/Math Education Doctoral Program Director, Science Summer Institute, College of Sciences and Engineering, Southern University and A&M University.

Her passion for STEM has afforded her the opportunity to serve in several capacities to impact PreK-20 education as a curriculum developer, educator, facilitator. As the Director of the Science Summer Institute in the College of Sciences and Engineering at Southern, she engages middle and high school students in activities to expose them to the many facets of STEM and motivate them to pursue STEM careers. As the former Academic Innovation Coordinator of Information Technology at Southern, she worked with Southern's faculty to effectively integrate technology in their courses

She believes strongly in identifying the best methods of instruction to encourage life-long learning and consistently shares that knowledge with others. Her areas of research include understanding minority student success in STEM, student success in gateway courses, technology use for teaching and learning, the impact of informal STEM learning, as well as increasing minority student interest in STEM careers.

She earned a B.S. in Biological Sciences from Southern University, an M.S. in Reproductive Physiology from Washington State University, Pullman, WA and a Ph.D. in Curriculum and Instruction-Science Education from Louisiana State University.



Welcome New Council Members!

Mr. Brian Davis, representing Louisiana Association of Business and Industry on the council, is the Director of LABI's Education and Workforce Development Council, as well as the Small Business Council.

Prior to joining LABI, Brian was the Director of the Louisiana Republican Legislative Delegation, Legislative Director for State Representative Rick Edmonds, a Political Consultant at 3 Strategies LLC, and Baton Rouge Regional Field Director at Americans for Prosperity.

Brian is a native of Baton Rouge and attended LSU for General Studies..



Welcome to Otey White and Associates



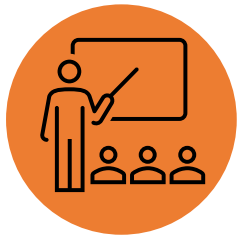
- Welcome to Otey White and his team
- Tasked to create a cohesive brand and public awareness campaign for LaSTEM stakeholders
- Council will stay here for first focus group with the team
- Directors and guests may join VISTA Center Director Nick Bustamante for a tour
- At 10:45 we will break for 10 minutes
- Reconvene council meeting at 10:55 am

Capital
Area STEM
Network
Center



VISION and MISSION

THE CENTER WILL SERVE AS A HUB TO PROMOTE AND SUPPORT STEM RESOURCES INCLUDING ACTIVITIES, PROFESSIONAL DEVELOPMENT & EDUCATION FROM EARLY CHILDHOOD TO EMPLOYMENT.
SPECIFIC FOCUS AREAS INCLUDE:



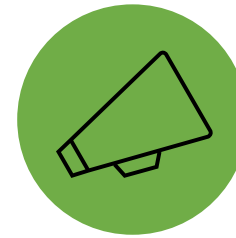
STRENGTHENING
OPPORTUNITIES AND
SUPPORT FOR
EDUCATORS



CREATING
OPPORTUNITIES FOR
BUSINESS, INDUSTRY,
AND COMMUNITY
PARTNERS TO ENGAGE
IN PK-16 CAREER-
BUILDING PROGRAMS



PROMOTING BROAD
FAMILY AND COMMUNITY
SUPPORT FOR STEM
EDUCATION



DEVELOPING STATEWIDE
NETWORK OF STEM
RESOURCES,
COMMUNICATIONS



LEAD COLLABORATIVE
EFFORTS TO IDENTIFY &
LEVERAGE FUNDING

2022-2025
PROPOSAL

Pipeline for
STEM K-12+

Professional
Development

Community

Communications

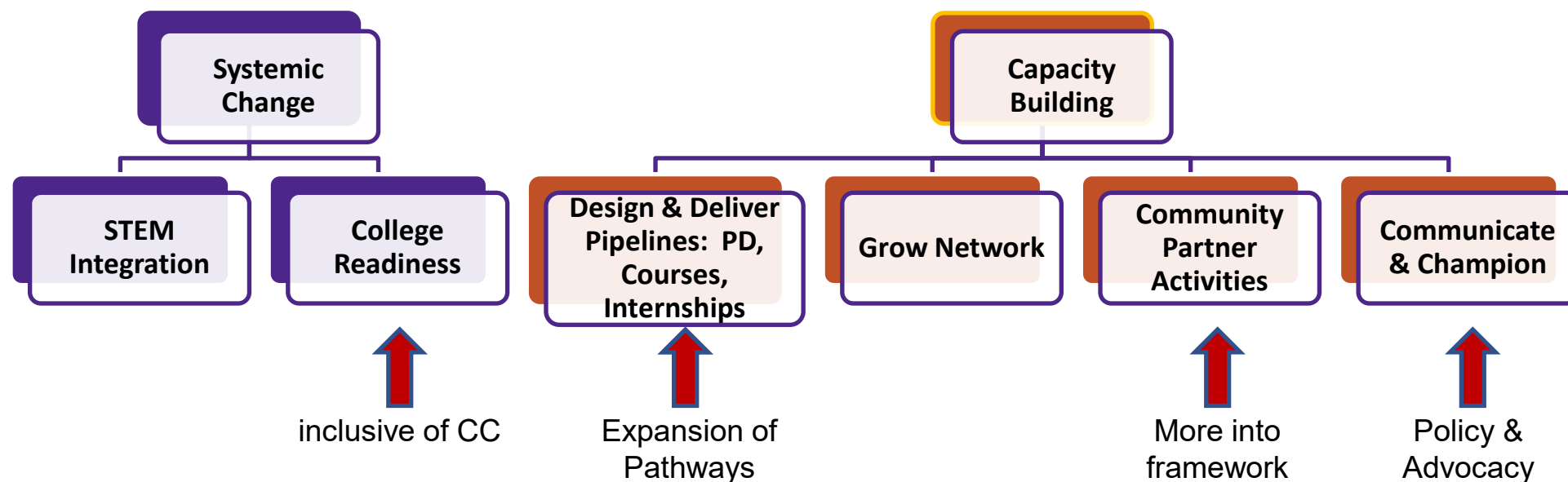


**Research-based STEM
Integration Framework**

Relevant Career Pipelines

**Professional Development
& Educator Support**

*If we can enhance practices of all stakeholders who influence the learning of children, youth, and young adults,
we can increase access to high-quality and inspiring STEM and college and career readiness opportunities & have a well-trained
workforce for the future*



**Exploration & Play
PreK-5**

**Career
Awareness
Grades 6-8**

**Orientation
Grade 9**

**Skill Development
Grades 10-12**

**Postsecondary
1st Year**

STEM BASED IN- SCHOOL COURSES

CS Fundamentals (Code.org Modules)	Intro to Computing	Intro into STEM Pathways & Careers	Intro to Computational Thinking	Computer Science I, AP Computer Science (Code.org)	Computer Science I Computer Science II
Elementary STEM Pathway Modules	STEP into STEM	Survey of Computer Science	Interactive Computing	Programming for STEM	Other Computer courses aligned with AAS, AS or BS Degree
Engineering is Elementary Modules	Intro to STEM Pathways & Careers	Intro to Computational Thinking	Data Manipulation & Analysis	Interactive Computing	
	Survey of Computer Science	Intro to ENGR	CyberSecurity	Networking Classes (Advanced)	
	CS Discoveries (Code.org)	Computer App for Business (IBCA & B)	Networking Classes (Basic)		

WORK BASED LEARNING SKILLS & OPPORTUNITIES

Teamwork & Communication: Team Based Challenges & Out of School Learning	Job Shadowing	Internships or Pre-Apprenticeships	Internships, Co- Ops, Apprenticeships
<ul style="list-style-type: none">Robotics: Vex, SeaPerch, Lego, NASA, EsportsCode.orgEngineering is ElementaryE-sportsMuseums, Libraries	Team Based Challenges, Clubs and Sports		Leadership Programs

CORE ACADEMIC COURSEWORK

Academic & Enrichment Courses: ENGL, Math, History, Science Aligned with TOPSU or Jumpstart 2.0	Academic & Enrichment Courses: AP or DE	Academic Sequence AAS, AS or BS Degrees
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- STEM Pipeline & Pathway Courses
- Capital Area STEM or Partner Supported Activity or Event

IN SCHOOL
LEARNING

Out of SCHOOL
LEARNING

HIGHLIGHTS From 2022

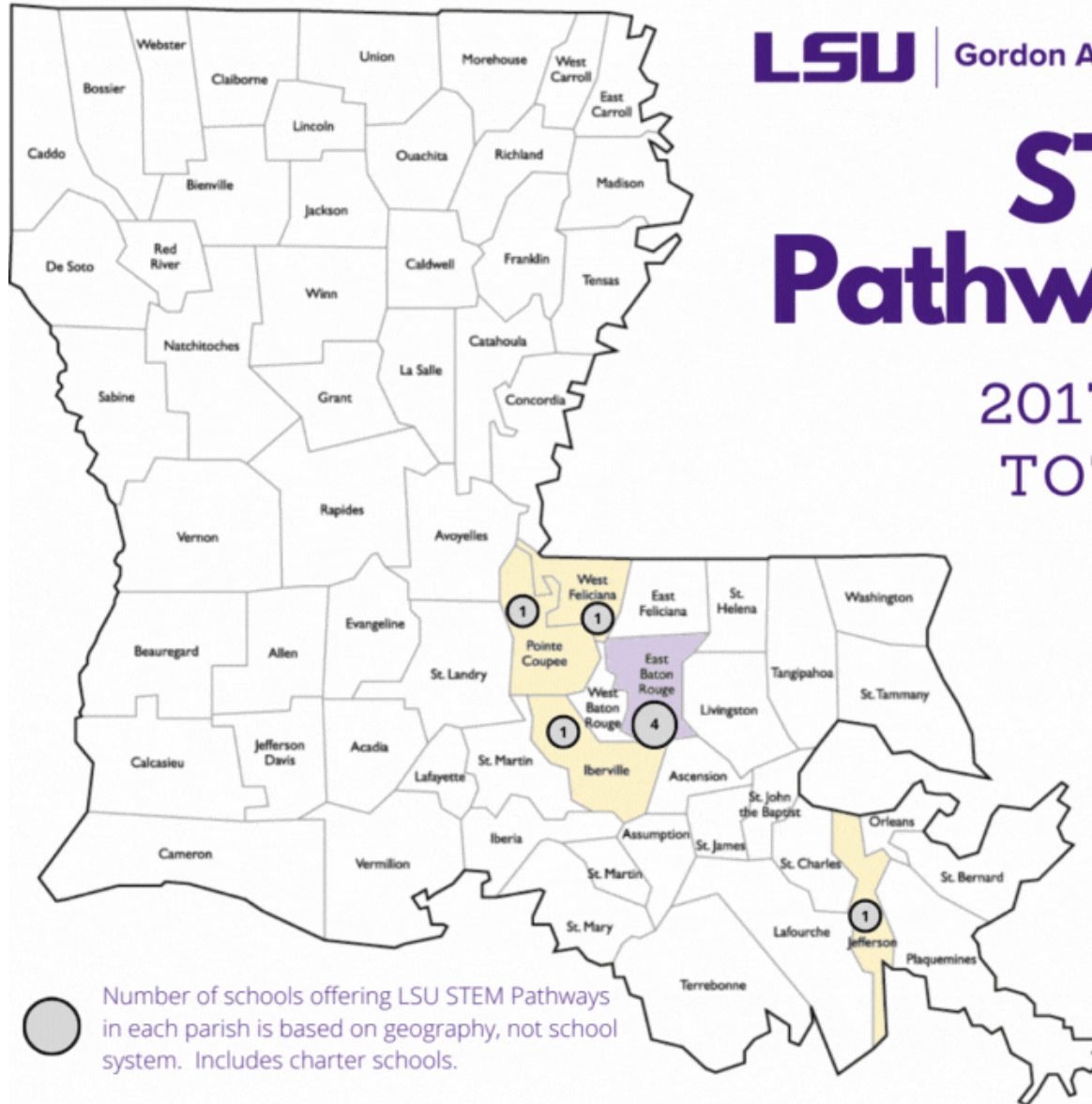
- Expansion of the STEM Pathway Courses
- Developing pipeline for STEM K-16 to include PreK to 8, including CC & CTE
- Learning Opportunities: Internship, Computer Science Extravaganza, Code.org PD, Vex Regional Competition

High School Credit STEM Pathway Courses Only

LSU | Gordon A. Cain Center

STEM Pathways

2017-2018
TOTAL: 8



*Does not include private schools

STEM Pathway Courses

INCLUDES PRE-ENGINEERING, COMPUTING, DIGITAL MEDIA & BIOMEDICAL

546
Sections

105
Schools

43
Districts

28
Courses

208 Unique Teachers

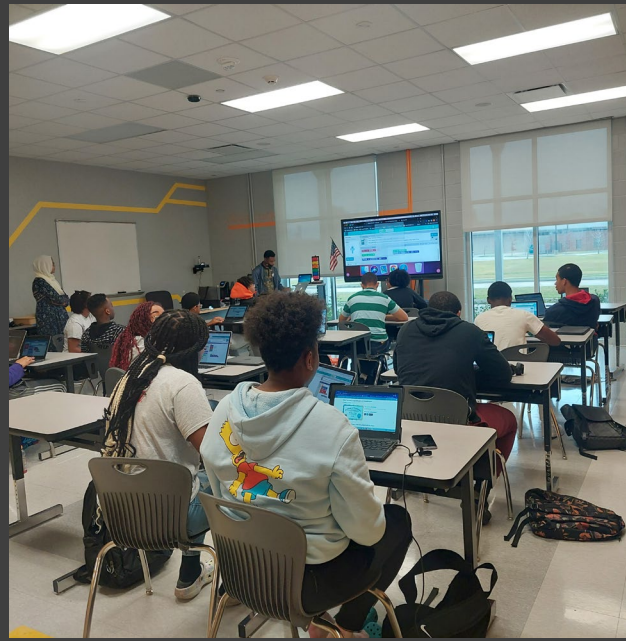
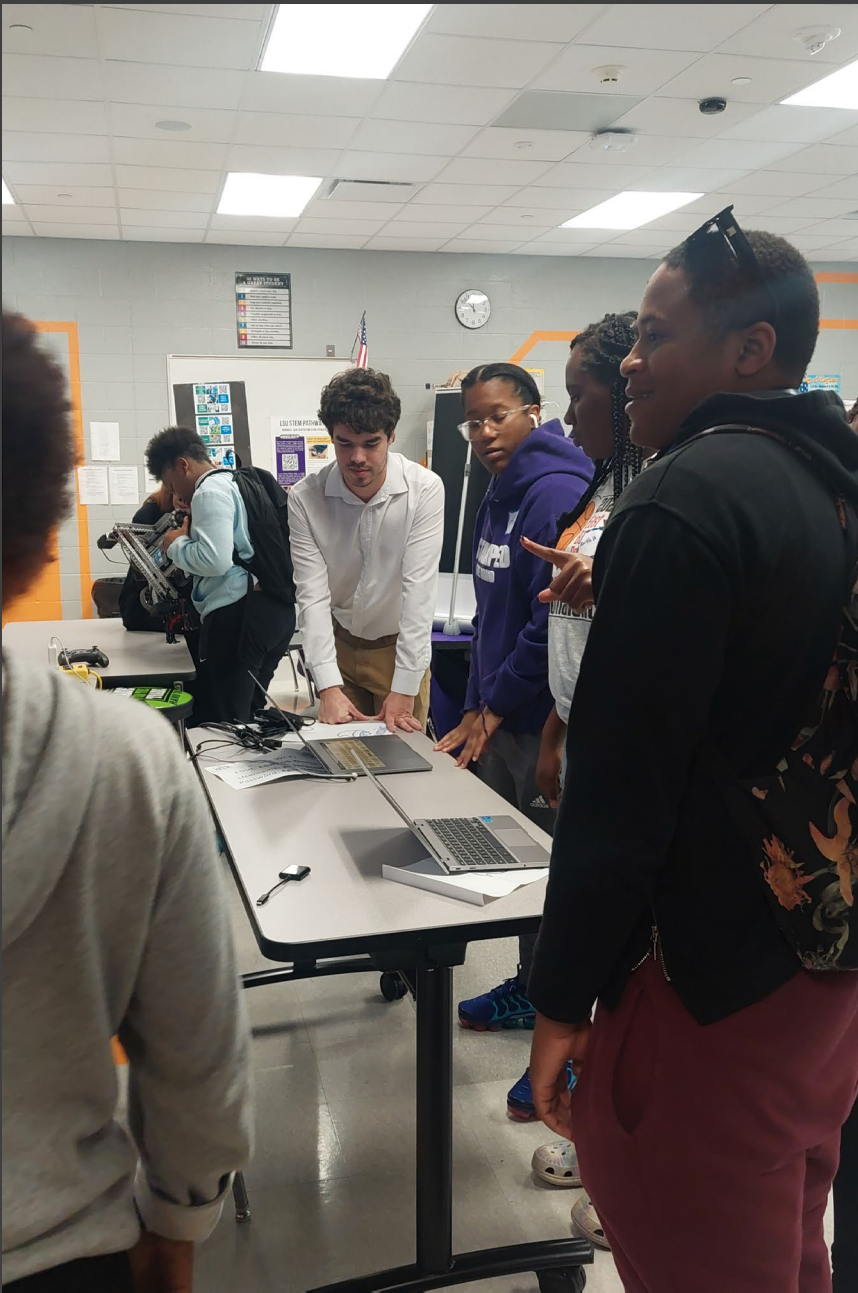
9,866 Student Seats

8,614 Unique Students

Charters are generally considered their own district

Numbers do not include elementary or middle schools offering STEM modules

Includes all 6th-12th grade courses



HIGHLIGHTS

COMPUTER SCIENCE EXTRAVAGANZA

86 Students

20 Volunteers

Sessions:

**AI, Computer Science in Industry,
Computer Science in Automotive,
Hour of Code, Growth Mindset,
Careers in Computer Science**

Partners:

**Upward Bound, Code.org, BRByttes,
Gnomic, EBRPSS, E-sports, NOLA
Code, Cain Center**

HIGHLIGHTS

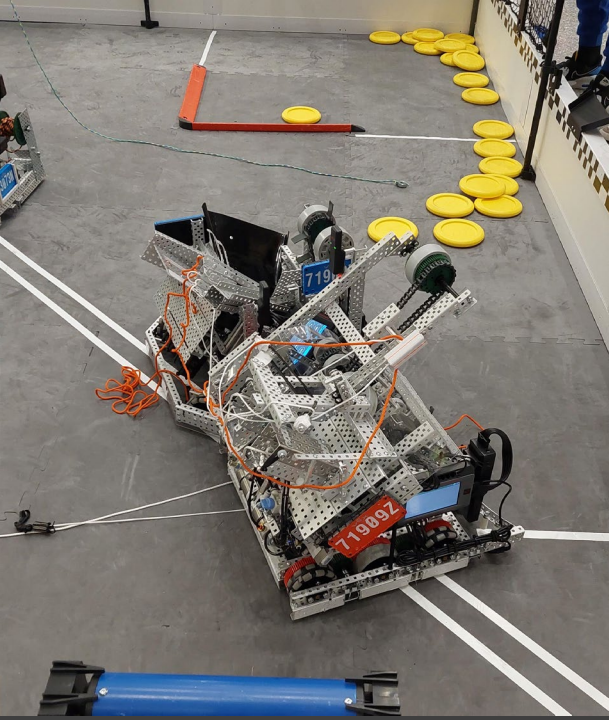
Code.org Training

12 Elementary Teachers
5 Parishes

Partners:

CGI Business Solutions,
Cain Center, Nola Code,
BRBytes, College of
Engineering





HIGHLIGHTS

VEX ROBOTICS REGIONAL COMPETITION

28 Middle & High School teams across the region

178 Students

32 Volunteers

100+ spectators

\$1000 Scholarship Funded

Partners:

LaSTEM, Cain Center, 4H, Society of Peer Mentors, LSU College of Engineering



Next STEPS & Upcoming Events

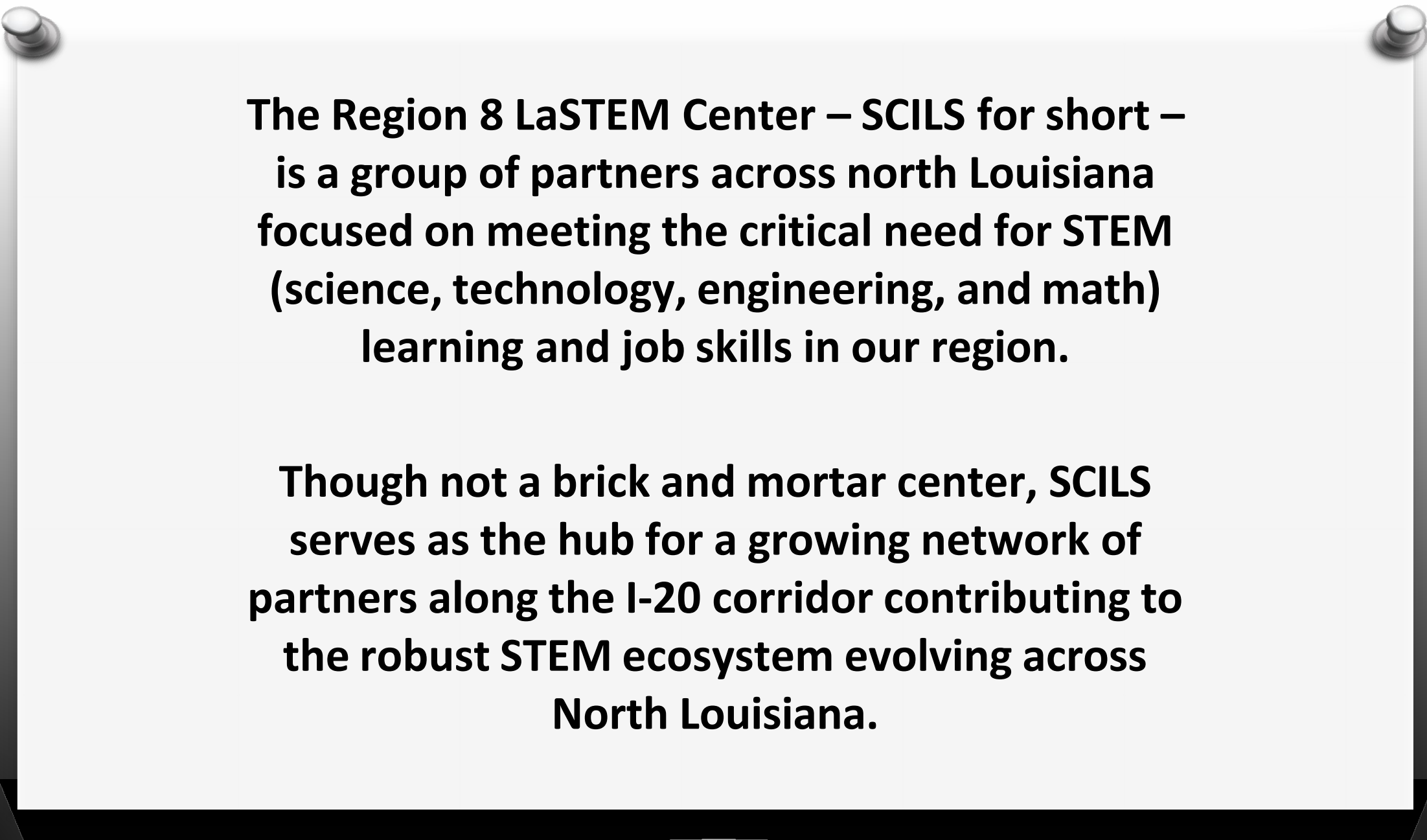
- Developing SPARK, STEM Event for Single Moms & Kids with Library System, EBR CTEC & Local Non-Profits
- Expansion of Internship Program (3 students currently)
- Incorporating Engineering is Elementary into Pre-Engineering Pipeline
- Continued Advocacy:
 - Greater Baton Rouge Industry Alliance Annual Meeting,
 - BRAC Workforce & Education Quarterly Meetings & Career Emersion
 - TechNext with ExxonMobil
- Professional Development for Middle & High School Teachers

SCILS Region 8 LaSTEM Center



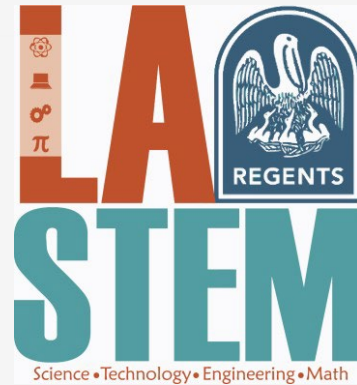
***The STEM Collective for Innovative
Louisiana Stakeholders***

****SCILS is supported through funding to the Science and Technology
Education Center (SciTEC) in the College of Education at Louisiana Tech
University through the LaSTEM initiative of the Louisiana Board of Regents.****



The Region 8 LaSTEM Center – SCILS for short – is a group of partners across north Louisiana focused on meeting the critical need for STEM (science, technology, engineering, and math) learning and job skills in our region.

Though not a brick and mortar center, SCILS serves as the hub for a growing network of partners along the I-20 corridor contributing to the robust STEM ecosystem evolving across North Louisiana.



Jackson Parish

Union Parish

Ouachita Parish

Caldwell Parish

Morehouse Parish

Richland Parish

Franklin Parish

West Carroll Parish

East Carroll Parish

Madison Parish

Tensas Parish



SCILS State Initiative

GIRLS IN STEM

**Partnerships with Region 2 for code.org and
Regions 3 & 6 for Rural STEM**

COMPONENT #1: CS4U

SCILS made a commitment with the global CSforAll collaborative to impact a minimum of 200 middle grades girls through an 8-part program built around *coding skills, computer science, cyber security and career success.*

**CS4U was Recognized for Meeting the Following CSforAll Goals Raising Awareness
Underrepresented Minority Groups Rural Communities**

*****Includes an online component for ongoing learning and remote access***



COMPONENT #2: Girls Design for Good

As part of the Million Women Mentors initiative, SCILS hosted an all-day “Engineer the World: Girls Design for Good” event in partnership with the Lincoln Parish Library, Girls Scouts and Louisiana Tech University's VISTA program.

Participants explored the Engineering Grand Challenge of "Access to Clean Water for Everyone" while engaging in hands-on activities throughout the day, including a design challenge to transport water from one community to another.

*****Each girl went home with their own STEM Kit that included a copy of VISTA's "Worrisome Waters" book***



**KICK OFF THE NEW YEAR WITH THE REGION
8 LASTEM CENTER AND THE LINCOLN
PARISH LIBRARY PRESENTATION OF:**

**ENGINEER THE WORLD:
GIRLS DESIGN FOR GOOD**

Saturday, January 7, 2023
9:30 AM - 4:30 PM
Open to Girls in Grades 4-6

EXPLORE THE SCIENCE CONNECTION OF
"ENGINEER THE WORLD WITH THE FUTURE"
WORKSHEETS AND MATERIALS
AND DESIGN A SOLUTION FOR A
REAL-World PROBLEM. THE GIRLS
WILL BE DESIGNING A SOLUTION FOR
THE FUTURE. "ENGINEER THE WORLD"

Bring a design sketch and discuss the
problem and solution and have a
contest to see who designs the best

For more information contact the LPL Children's Department at 318-513-5531 or
message the Lincoln Parish Library on Facebook. The workshop is free but
limited to 24 participants. Registration is also required to sign up soon!

COMPONENT #3: Alda Center Project

In partnership with the Women in STEM at Louisiana Tech University, SCILS supported bringing Dr. Tamar Goulet, an IF/THEN Ambassador, to campus for a day of interactive experiences with collegiate women, young STEM leaders in middle and high school, and university faculty.

Participants engaged in conversation with Dr. Goulet during a special breakfast where she shared her journey as a professional Woman in STEM. After seminars throughout the day, participants joined Dr. Goulet for a screening of "Picture a Scientist," a film chronicling the groundswell of researchers who are writing a new chapter for women scientists.

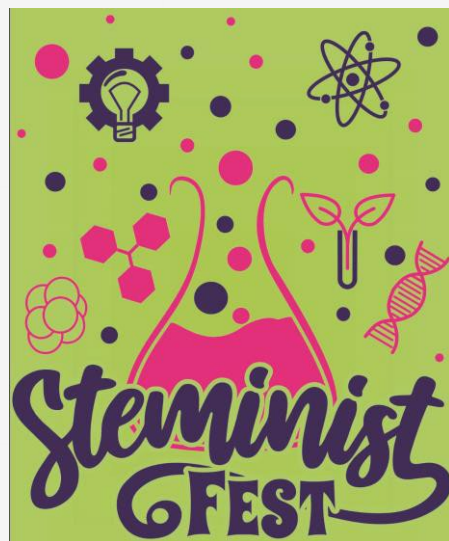
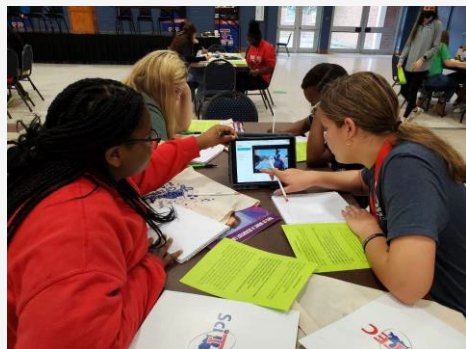


COMPONENT #4: STEMINIST Fest

In partnership with the National Girls Collaborative, SCILS created an event that focuses on career success while engaging participants in select STEM experiences.

Participants engaged in various design challenges while also exploring the IF/THEN Collection, a digital asset library of women STEM innovators.

In addition, the students heard from panels of female STEM professionals as well as interacted with university students that served as mentors. The day culminated with students creating their own public service messages around the importance of STEM.



COMPONENT #5: Louisiana Girls Collaborative

With support from the National Girls Collaborative Project (NGCP), SCILS is re-launching the Louisiana Girls Collaborative. NGCP is a network of networks that brings together organizations committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).

SCILS will leverage the LaSTEM network as a framework of leadership to help disseminate resources and share information for each region. In addition, a Champions Board is being recruited in order to have strong leadership among business and industry as well as other key stakeholder pools throughout the state.

Karen A. Peterson
Chief Executive Officer
National Girls Collaborative Project



<https://youtu.be/ehXolQEztIM>



Cathi Cox-Boniol, Director
**Missy Wooley, Assistant
Director**



**On behalf of our entire team at
Louisiana Tech University,
thank you for letting us host
you today!**



New Business and Adjournment

- 2023 LaSTEM Annual Summit
 - October 17th, 2023
 - CAJUNDOME and Convention Center
 - Sponsor Opportunities available (see Clint)
- Call For Presenters now open!
- Adjournment and Lunch
- Directors will meet with Otey White and Associates after lunch

