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
- Roll Call

- Approval of Quarter 4, 2022 Advisory Council Meeting Minutes

- New Members on the Council
Approval of Minutes

4th Quarter LaSTEM Advisory Council Minutes
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.
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
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.
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<th>Exploration &amp; Play</th>
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<th>Orientation</th>
<th>Skill Development</th>
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<td>Grades 6-8</td>
<td>Grade 9</td>
<td>Grades 10-12</td>
<td>1st Year</td>
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**In School Learning**

- CS Fundamentals (Code.org Modules)
- Elementary STEM Pathway Modules
- Engineering is Elementary Modules
- Intro to Computing
- STEP into STEM
- Intro to STEM Pathways & Careers
- Survey of Computer Science
- CS Discoveries (Code.org)
- Intro to Computational Thinking
- Introducetion to ENGR
- Computer App for Business (IBCA & B)
- Computer Science I
- Computer Science II
- Other Computer courses aligned with AAS, AS or BS Degree

**STEM Based In-School Courses**

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**Work Based Learning Skills & Opportunities**

- Teamwork & Communication: Team Based Challenges & Out of School Learning
  - Robotics: Vex, SeaPerch, Lego, NASA, Esports
  - Code.org
  - Engineering is Elementary
  - E-sports
  - Museums, Libraries
- Job Shadowing
- Internships or Pre-Apprenticeships
- Team Based Challenges, Clubs and Sports
- Internships, Co-Ops, Apprenticeships
- 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
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

Number of schools offering LSU STEM Pathways in each parish is based on geography, not school system. Includes charter 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
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**
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/ehXoIQEztlM
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