



College of Science

# Office of Academic Innovation & Engagement

## Annual Report

FY 2025-2026

**WE BUILD TEAMS THAT WIN  
IN LOUISIANA FOR THE WORLD**

The Office of Academic Innovation and Engagement serves as a hub for student leadership, mentoring, outreach, and professional development in the College of Science.

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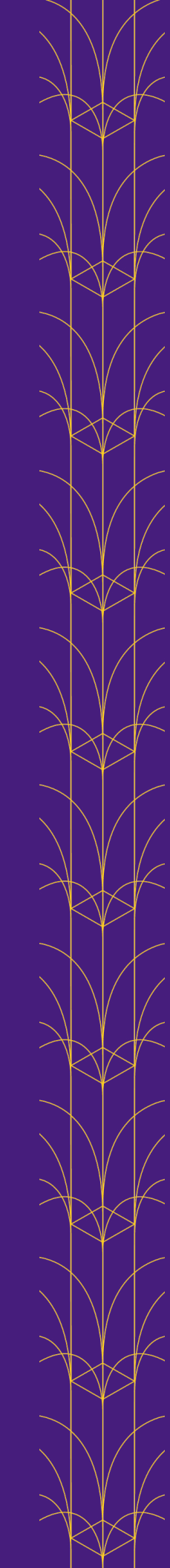
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# **Becoming a Scientist**

**SCI 1001/1002**

# Becoming a Scientist



SCI 1001/SCI 1002: Becoming a Scientist helps LSU science and mathematics students make a strong start during the critical first year of college. As part of the College of Science's broader student-success efforts, the course helps students find their place on campus, build essential academic skills, reflect on their growth, explore careers, and develop a sense of belonging within the scientific community.

The course is grounded in the idea that students are more likely to persist when they are connected academically and socially to their campus and major. Through guided reflection, small-group discussions, and collaborative activities, students learn to navigate the transition to college while beginning to see themselves as scientists and mathematicians. Communication and teamwork are central to that process—and essential skills for future success in science, mathematics, and the broader workforce.

A faculty member teaches each course with support from two or three peer mentors. This team-based model gives first-year students accessible, near-peer role models who can share practical insight about succeeding at LSU. Peer mentors benefit as well: by guiding discussions and supporting new students, they strengthen their own leadership, communication, and collaboration skills. Together, faculty and peer mentors create an active, supportive learning environment that helps students build community from their first year onward.

## Curriculum Committee

- Dr. Rashmi Pathak, *Post-doctoral Researcher, LSU Department of Biological Sciences*
- Dr. Malinda Sutor, *College of Science C-I Teaching Support, CxC*
- Dr. Iniki Lowery-Jones, *Assistant Director Pre-Nursing Programs*
- **Coordinator:** Dr. Johnna Roose, *Senior Instructor, LSU Department of Biological Sciences*
- **Director:** Dr. Zakiya Wilson-Kennedy, *Associate Professor of Chemistry Education, Department of Chemistry, and Associate Dean for Academic Innovation and Engagement, College of Science*

# LSU Research Bites: STEM Course for First-Year Science and Math Students Helps Them Succeed

Originally written by Paige Jarreau for the LSU Blog: [LSU Research Bites: STEM Course for First-Year Science and Math Students Helps Them Succeed](#)

April 28, 2026

Many of today's toughest problems—from environmental challenges to disease outbreaks to energy crises—require solutions from people trained in the STEM disciplines of science, technology, engineering, and mathematics. STEM skills drive innovation across critical sectors such as sustainable energy, healthcare, and infrastructure.



Yet, despite the growth of university STEM training programs and continued recruiting efforts, many students who start in these programs and degrees don't finish them. Between 2003 and 2009, only about half of the students who began college in a STEM major continued in the field.

LSU experts saw a path to addressing this issue by focusing on supporting and building confidence among first-year college students in science and math.

"Early experiences matter," said Zakiya S. Wilson-Kennedy, an associate professor of chemistry and associate dean for academic innovation and engagement at the LSU College of Science. "Students are more likely to thrive when they can build confidence, experience a sense of belonging, and begin to see themselves as part of a scientific community from the very start of their transition into college."

Research has consistently shown that role models, especially those who share one's cultural or ethnic background and make success feel achievable, are an important factor in helping students pursue and remain in STEM fields. Other important factors are the development of a sense of belonging in STEM and self-efficacy, or a feeling that one has the tools to succeed.

But how can universities ensure that all students entering STEM fields experience these factors for success? Wilson-Kennedy and colleagues at the LSU College of Science and LSU's Communication across the Curriculum (CxC) program had an idea: a first-year seminar course for all science and mathematics majors.

## SCI 1001: Becoming a Scientist or Mathematician

The team designed this course to provide students with early access to support systems, meaningful connections in STEM, and key STEM-related skills, such as science communication, information literacy, and scientific ethics. The one-credit, discussion-based, small-size (40 students max) course introduces students to strategies and habits for academic success, scientific identity development, teamwork, self-reflection, science writing, and wellness.

"This is a communication-intensive course, so it gives first-year students dedicated time to build and practice these skills in a real classroom setting with peers and a professor, while connecting them with CxC resources they can draw on throughout their LSU journey," said Becky Carmichael, CxC assistant director of student support and a curriculum committee member of SCI 1001. Students write multiple reflection papers throughout the semester. All students also engage in a team project to research a science topic.

SCI 1001 is also designed to connect students with faculty and peer mentors. Each section is led by a faculty instructor and supported by undergraduate peer mentors, fostering opportunities where students can ask questions, build relationships, and begin to see what success in science or mathematics looks like in practice.

Through the course, students are introduced to various support systems and opportunities at LSU, including LSU's Academic Success Center, disability services, student health services, undergraduate research programs, and career services.

"We wanted this course to make the often-overwhelming transition from high school to college more human," said Supuni Dhameera Silva, a curriculum committee member and instructor of SCI 1001. Silva is also a postdoctoral researcher in the LSU College of Science.

"We built in topics and discussions on habits for success, stress management, teamwork, communication, and career pathways. It is about helping students gain momentum early, feel supported in a large university environment, and begin college with a clearer sense of purpose and possibility."

## Improved Student Outcomes

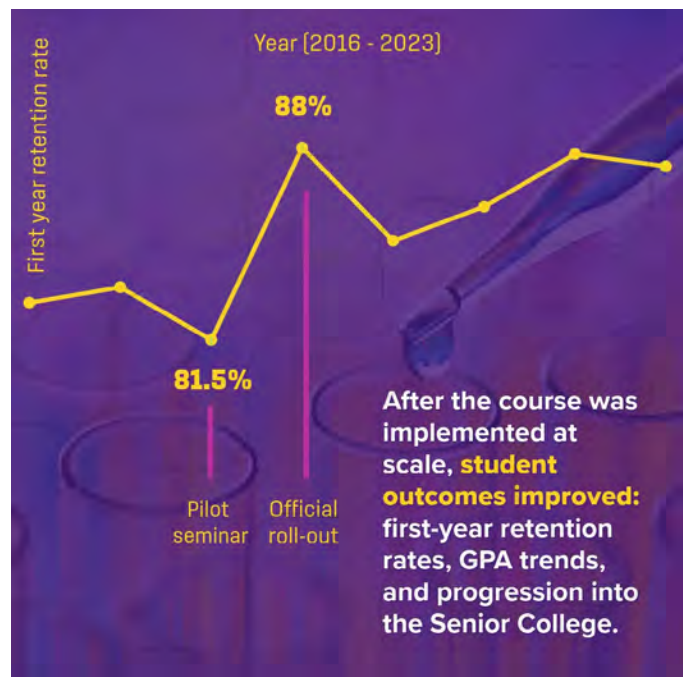
The team found that after the course was implemented at scale, student outcomes improved. First-year retention rates, GPA trends, and progression into the Senior College increased.

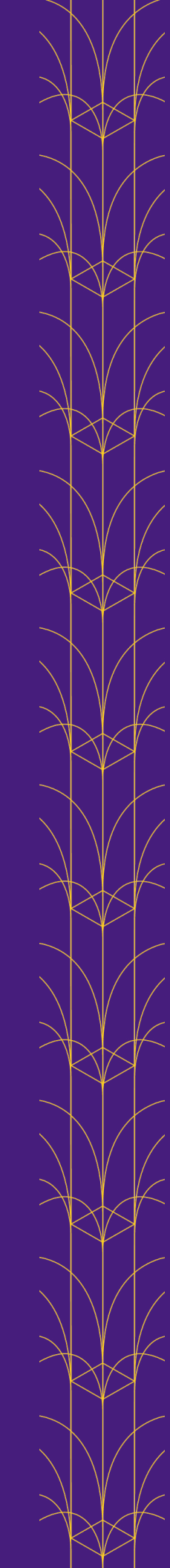
By pairing academic skill-building with mentoring, creating a sense of belonging, and providing a pathway into the scientific community, LSU is creating conditions that help students excel in STEM fields.

"As demand grows for a strong scientific workforce, studies like this one point to an important truth: student success is shaped not only by academic preparation and talent but also by whether students encounter the right support at the right time in an environment where they can feel they belong," Wilson-Kennedy said.

This study was authored by Drs. Supuni Dhameera Silva, Becky J. Carmichael, Johnna L. Roose, Hollie Hale-Donze, Cynthia B. Peterson, and Zakiya S. Wilson-Kennedy of LSU College of Science.

**Read the study:** [Becoming a Scientist or Mathematician: Leveraging Multimodal High-Impact Practices and a Multi-layered Mentoring System to Enhance Early Success of College Freshmen.](#)





# **Training & Development**

# SCI Lead



SCI Lead is a OAIE student leadership council that empowers students to grow as confident professionals, thoughtful leaders, and effective communicators. Throughout their time in the program, these students engage in enriching experiences designed to cultivate leadership capacity, encourage creative problem-solving, and strengthen their sense of professional identity.

## **Members of SCI Lead receive the following opportunities during their time within the council:**

- Participate in a Leadership Learning Laboratory (a series of workshops designed to strengthen leadership skills)
- Collaborate with fellow members to address challenges through strategic student-led initiatives for the LSU and Baton Rouge Community
- Engage in the development and implementation of outreach events and activities for their peers and K-12 students

## 2025-2026 SCI Lead Members

**SCI Lead Graduate Assistant** - Christen Jones, *Graduate Student, Department of Chemistry*

| Name                    | Classification | Area of Study                     |
|-------------------------|----------------|-----------------------------------|
| Cy Daigle               | Junior         | Biological Sciences               |
| Faith Rispone           | Senior         | Biological Sciences               |
| Hang Vu                 | Senior         | Biochemistry                      |
| Havan Pleasant          | Senior         | Biological Sciences               |
| Jacelyn LeJeune         | Sophomore      | Biological Sciences, Anthropology |
| Jada Yeboah             | Senior         | Biochemistry                      |
| JeMyia Smith            | Sophomore      | Mathematics - Secondary Education |
| John Lee                | Senior         | Biological Sciences               |
| Jordan Brooks           | Junior         | Microbiology                      |
| Manishq Sai Goribidanur | Sophomore      | Biological Sciences               |
| Sydney Lawson           | Senior         | Biological Sciences, Mathematics  |
| Tai Hua                 | Senior         | Chemistry                         |
| Talia Ross              | Junior         | Biological Sciences               |

## Leadership Learning Laboratory

**August 11, 2025**

### Virtual Meet & Greet

Valerie Stampley, *Program Manager, LSU College of Science*

Christen Jones, Graduate Student, *SCI Lead co-coordinator*

- Meet your 2025-2026 fellow council members
- Establish preferred communication method

**August 27, 2025**

### SCI Lead Orientation

Valerie Stampley, *Program Manager, LSU College of Science*

Dr. Zakiya Wilson-Kennedy, *LSU Science Associate Dean for Academic Innovation & Engagement*

Christen Jones, Graduate Student, *SCI Lead co-coordinator*

- Program expectations and commitments
- Team Roles and Contract

**August 30, 2025**

### Team Building Activity - UREC Challenge Course

LSU UREC

- Fostering group cohesion and collaboration
- Establishing trust
- Building effective communication

**September 5, 2025**

### Strategic Planning Workshop

Valerie Stampley, *Program Manager, LSU College of Science*

Dr. Zakiya Wilson-Kennedy, *LSU Science Associate Dean for Academic Innovation & Engagement*

Christen Jones, Graduate Student, *SCI Lead co-coordinator*

- What is Strategic Planning?
- Effectively identify problems plaguing the science department and how to tackle those issues
- Brainstorm ideas to address challenges

**September 24, 2025**

**Practical Leadership Tools**

Dr. Edward Gibbons, *LSU School of Leadership & Human Resource Development*

- Practical tools for use in leadership roles
- Communication, emotional intelligence, conflict

**October 15, 2025**

**Emergenetics - Beginner Workshop**

Dr. Rebecca Burdette, *Director, Communication across the Curriculum*

- Understanding our thinking preferences and their effects on interpersonal communication
- Role of diverse thinkers in the workplace and how personal preferences influence assumptions, biases, and interpersonal communication

**October 29, 2025**

**Networking (Joint Meeting with LS-LAMP)**

Dr. Ague Mae Manongsong, *Assistant Professor, LSU School of Leadership and Human Resource Development*

- Power of networking
- Networking strategies
- Professionalism
- Elevator Pitch and Importance

**November 5, 2025**

**Event Planning 101**

Valerie Stampley, *Program Manager, LSU College of Science*

- Basics of planning a successful event
- Details to consider
- Approvals and forms
- Group decides on spring events and timeline

**December 1, 2025**

**Team Building Activity - Escape Room with LS-LAMP and CERP**

13th Gate Escape

- Work as a team to solve the puzzles and escape the room
- Network with members of the LS-LAMP and Chemistry Research & Practice (CERP) groups

**January 24, 2026**

**Spring Retreat**

Arbinger Outward Mindset Workshop

Chynsia Robertson, *b1 Bank*

- Adopting an outward mindset to improve collaboration, conflict management, and team effectiveness

**Event Planning**

- Designated time to plan spring events

**April 27, 2026**

**SCI Lead, and CERP Networking Event - Main Event**

- Group bonding event involving networking with the CERP group



SCI Lead Spring Retreat

## SCI Lead Initiatives

Council members participate in the Leadership Learning Laboratory and then use the skills developed to lead activities for others. In this way, they give back to the community as they learn!



### February 24, 2026 | Study Night with SCI Lead

**Description:** A casual evening event for undergraduate students to build community and study together leading up to midterms. SCI Lead provided a space for students to study and de-stress. The event included snacks and giveaways.

**Target Audience:** College of Science and Honors undergradates

**Goals:** Promote studying for midterms in order to relieve academic stress; Promote mental health and relaxation via a calm and supportive environment; Encourage communication and networking among students to build and strengthen a CoS community

**Location:** French House Salon

**Attendance:** 34



### April 10, 2026 | SCI Lead Spring Fest

**Description:** Outdoor event that provided an opportunity for students to learn more about student organizations and get connected to campus resources while enjoying games, activities, and food. The event included participation from 20 campus organizations, free snowballs and giveaways, and interactive games.

**Target Audience:** LSU undergraduates especially those within the College of Science

**Goals:** Increase awareness of campus organizations and resources; Increase social media following; provide a low stress atmosphere for students to take a break from academics and enjoy some time outside.

**Location:** LSU Parade Grounds

**Attendance:** >200



**Left:** Study Night with SCI Lead; **Right:** Faith, Tai, JeMyia, Dr. Wilson-Kennedy, Jada, and Cy at SCI Lead Spring Fest.

## SCI Lead in the Community

In addition to outreach volunteer opportunities through *Geaux Science Explorations*, SCI Lead students participate in other outreach activities within the Baton Rouge Community.

### September 11, 2025 | College of Science Block Party

- The College of Science Block Party is an opportunity for College of Science students to get to know resources available to them and the student organizations within the college.
- SCI Lead hosted a table to share information about SCI Lead with College of Science students.

### October 24, 2025 | Dean's Circle Science & Spirits

- Science & Spirits, put on by the LSU College of Science, is a gathering of the college's donors, faculty/staff, and invited students. It is the College's opportunity to showcase the amazing research and students to the Dean's Circle.
- Two SCI Lead representatives were selected to do a science demo for event attendees - Tai Hua and JeMyia Smith. They performed a "glowing water" experiment demonstrating the ultraviolet properties of tonic water and bleach.

### November 8, 2025 | Super Science Saturday

- SCI Lead students hosted an activity station for Super Science Saturday, a free public outreach and science education event for kindergarten to 12th-grade students, parents, and the general public put on by the LSU Department of Chemistry.
- Sydney Lawson, Havan Pleasant, Jacelyn LeJeune, Jada Yeboah, JeMyia Smith, Jordan Brooks, and Tai Hua did a gene bracelet activity where attendees made bracelets based on their genetic traits.

### April 28, 2025 | Red Stick Farmer's Market Strawberry Jam Day

- Each year, the Red Stick Farmer's Market hosts Strawberry Jam Day - an event celebrating Louisiana strawberries and supporting local farmers.
- Hang Vu and JeMyia Smith demonstrated a strawberry DNA extraction to event attendees.



**Left:** Jordan, Havan, Jacelyn, and Sydney at Super Science Saturday; **Right:** Hang at Strawberry Jam Day.

## Student Spotlight: Manishq Goribidanur

**Classification:** Sophomore

**Major:** Biological Sciences, Pre-Dent

**Minors:** Entrepreneurship and Honors Research

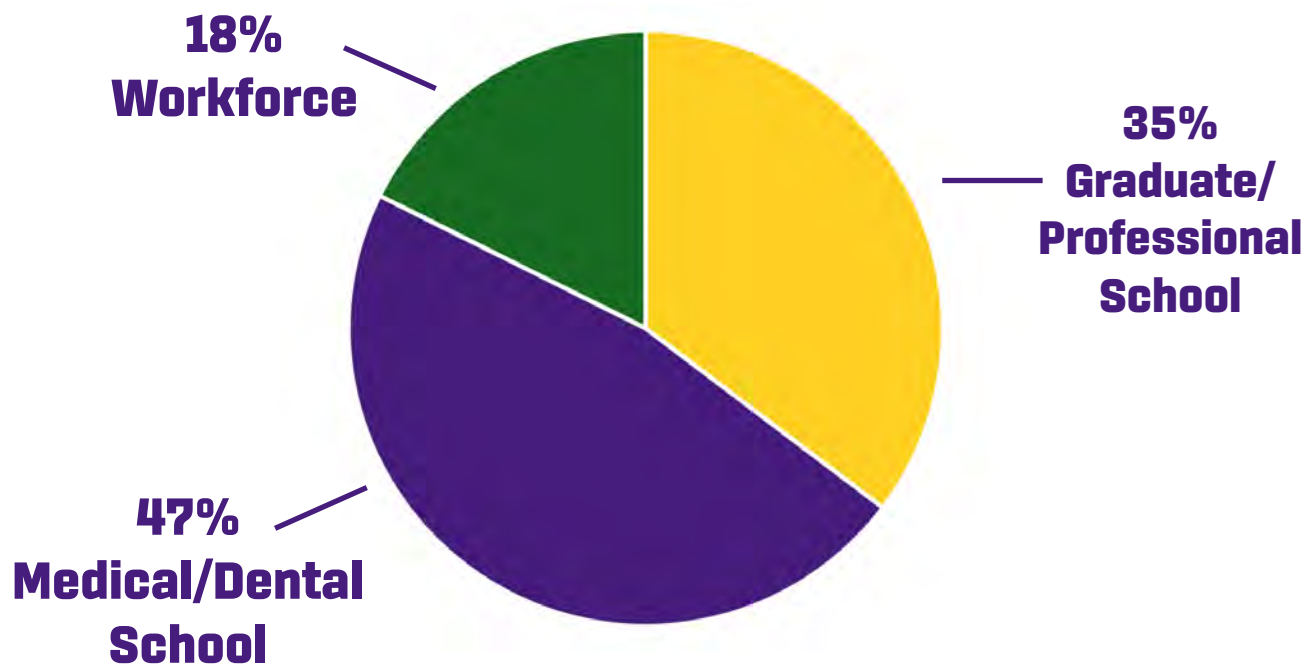
**Career Goals:** To be a compassionate dentist that empathetically assuages dental anxiety among those in his community.

*"Serving on SCI Lead this year has been one of the most transformative experiences of my time in college. Specifically, I have experienced significant growth in my leadership and professional development. When I first joined, I viewed leadership as simply taking initiative and completing the tasks laid out in front of me. However, through the Leadership Learning Laboratories and initiatives we planned, I began to understand leadership as a more dynamic process rooted in flexibility, active listening, and working with others."*



## Where are they now?

Since its inception in 2018, 64 students have participated in the SCI Lead leadership council. Among those who graduated, approximately 47% went on to Medical/Dental school, 35% went to graduate/professional school, and about 18% entered the workforce occupying positions in schools, research labs, and medical clinics.



# LS-LAMP

## LOUIS STOKES LOUISIANA ALLIANCE FOR MINORITY PARTICIPATION

LS-LAMP was a comprehensive, statewide, coordinated program aimed at substantially increasing the number and quality of minority students enrolling in and completing baccalaureate degrees in science, technology, engineering, and mathematics (STEM) and subsequently going on to pursue graduate studies in STEM disciplines. LS-LAMP is one of the many National Science Foundation alliance programs nationwide.

The LS-LAMP Program at LSU focused on helping its scholars navigate their STEM degree programs by providing individualized mentoring, professional development, research training, and preparation for graduate school programs. Scholars join a small community of like-minded STEM students, who share similar goals and are motivated to succeed. In addition to participating in program activities, all LAMP Scholars also engage in undergraduate research and community service.

In total, the LSU LS-LAMP program engaged >450 students between 1996 - 2025.

### Fall 2025 LS-LAMP Scholars

| Name             | Classification | Area of Study                                      |
|------------------|----------------|----------------------------------------------------|
| A'Maya Freeman   | Sophomore      | Biological Sciences                                |
| Daianna Williams | Senior         | Kinesiology - Human Movement Science               |
| Faye Sciple      | Senior         | Psychology                                         |
| Giancarlo Lara   | Senior         | Biological Engineering                             |
| Iyanna Robinson  | Senior         | Microbiology                                       |
| Jada Yeboah      | Senior         | Biochemistry                                       |
| Laura Beaubrun   | Senior         | Biochemistry                                       |
| Madison Woodson  | Senior         | Environmental Management Systems - Policy Analysis |
| Whitney James    | Senior         | Biochemistry                                       |

# LS-LAMP Fall Monthly Seminar Topics

**September 30, 2025**

## **Group Share – Summer Professional Development**

- Scholars share what they did during the summer regarding research, internships, shadowing, volunteering etc.

**October 29, 2025**

## **Networking (Joint Meeting with SCI Lead)**

Dr. Ague Mae Manongsong, *Assistant Professor, LSU School of Leadership and Human Resource Development*

- Power of networking
- Networking strategies
- Professionalism
- Elevator Pitch and Importance

**November 18, 2024**

## **Mentorship**

Dr. Zakiya Wilson-Kennedy, *LS-LAMP Chapter Director, Associate Dean AIE, Chemistry professor*

- What makes a good mentor
- What to look for in a mentor
- How to support students and help them grow professionally

**December 1, 2025**

## **Team Building Activity - Escape Room with SCI Lead and CERP**

13th Gate Escape

- Work as a team to solve the puzzles and escape the room
- Network with members of the SCI Lead and Chemistry Research & Practice (CERP) groups



LS-LAMP scholars Laura Beaubrun (Left) and Whitney James (Right) with Dr. Zakiya Wilson-Kennedy (center) at Fall Commencement. Both students earned the Distinguished Undergraduate Researcher Award.

# Beckman Scholars



**Dykia Williams**  
2023-2024



**Lexie Cheramie**  
2023-2024



**Benjamin Erdozain**  
2024-2025



**Sydney Lawson**  
2024-2025



**Jada Yeboah**  
2025-2026



**Jordan Brooks**  
2025-2026

The Beckman Scholars Program is a 15-month paid immersive leadership and research program within the College of Science funded by the Arnold and Mabel Beckman Foundation. The program is a collaboration between the College, The Office of Undergraduate Research, and LSU Communication Across the Curriculum (CxC). In addition to research experience, Beckman Scholars receive an \$18,200 stipend; comprehensive professional development opportunities including personalized mentoring; community building; expert guidance in science communication; leadership development; and community engagement.

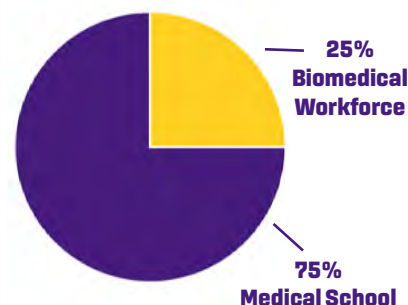
## 2025-2026 Beckman Scholars

| Name          | Area of Study | Mentor              | Research Project                                                                                         |
|---------------|---------------|---------------------|----------------------------------------------------------------------------------------------------------|
| Jada Yeboah   | Biochemistry  | Dr. Graca Vicente   | Synthesis of aza-BODIPY Fluorophores for Conjugation with EGFR-targeting Peptides and Other Molecules    |
| Jordan Brooks | Microbiology  | Dr. Patrick DiMario | Molecular Mechanisms of Ribosomal Biogenesis in Nuclear-Deficient <i>Drosophila melanogaster</i> Embryos |

## Former Beckman Scholars

| Name              | Graduated   | Area of Study                    | Mentor              |
|-------------------|-------------|----------------------------------|---------------------|
| Benjamin Erdozain | Spring 2025 | Biochemistry                     | Dr. Bret Elderer    |
| Dykia Williams    | Spring 2025 | Biochemistry                     | Dr. Graca Vicente   |
| Lexie Cheramie    | Spring 2025 | Microbiology                     | Dr. Patrick DiMario |
| Sydney Lawson     | Spring 2026 | Biological Sciences, Mathematics | Dr. Fatima Rivas    |

## Where are they now?



# The Career Compass Series

## Leadership Lessons from STEM Professionals

Annually, the College of Science Office of Academic Innovation & Engagement partners with the LSU Chapter of the National Organization of Black Chemists and Chemical Engineers (NOBCCChE) to host an invited speaker series focused on leadership development and career navigation in STEM. The series connects graduate students with successful professionals in the chemistry field — particularly those in industry — to build practical skills in career strategy, professional decision-making, and leadership within technical careers.

### Dr. Tyrslai Williams-Carter

Professor of Research, Lutrill and Pearl Payne School of Education, Office of Educational Research; Owner, Noir Innovation Consulting Group LLC; Author, *Adventures Fit For A Butterfly Series*

**Dates:** March 30-31, 2026

**Location:** Choppin 210

**Target Audience:** LSU graduate and undergraduate students

**Talk Titles:**

- *Your Expertise Has Range: Positioning Your STEM Training for Leadership, Innovation, and Opportunity*
- *Built to Last: Energy, Boundaries, and Harmony in STEM Careers*
- *Know Your Edge: Owning Your Lane, Your Limits, and Moving at Full Capacity*



### Feedback from a Participant

*"One of my biggest takeaways from the workshop/series is that becoming an effective leader isn't about fitting a single mold. Instead, it's about staying true to your values, leading authentically, and finding an approach that works for you. I was also reminded of the importance of prioritizing my mental well-being, pursuing work that I find meaningful and gives me purpose, and committing to lifelong learning and continuous self-improvement. Rather than striving for a perfect work-life balance, I want to build a career centered around work that I genuinely love to do and find fulfilling." - Chemistry Graduate Student*

# Documentary Screening: Space, Hope, & Charity

LSU LAGNiAppE, the Department of Physics & Astronomy, and the Office of Academic Innovation & Engagement sponsored a screening of the award-winning documentary "Space, Hope, & Charity." A public Q&A session followed the screening featuring Dr. Charity Woodrum and the film director Sandy Cummings.

**About the Documentary:** The film tells the story of Dr. Charity Woodrum, a young woman from rural Oregon whose dream of becoming an astrophysicist is nearly derailed by unimaginable tragedy. Raised in poverty and the first in her family to graduate from high school, Charity returned to school in her mid-20s to study physics while expecting her first child. Just as her life felt complete, she experienced what she calls "The Worst Day," a loss that shattered her world. With the support of friends, mentors, and her own unyielding determination, Charity finds her way back to the distant galaxies where she feels most at peace. Reclaiming her passion for science and rediscovering hope along the way.

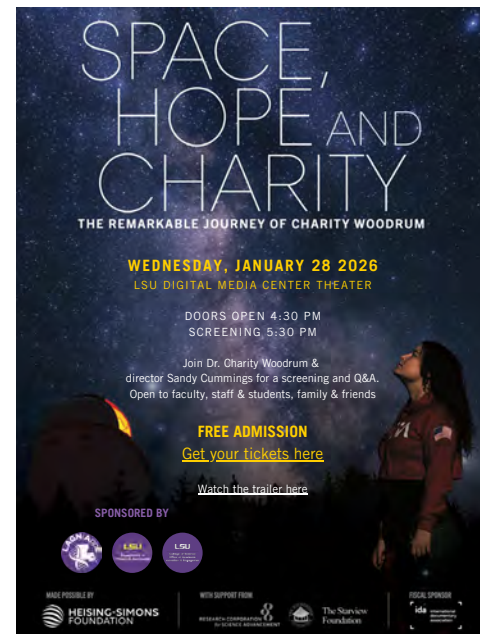
**Date:** January 28, 2026

**Time:** 4:30 p.m. - 8:30 p.m.

**Location:** LSU Digital Media Center

**Audience:** LSU faculty, staff, students, family & friends

**Attendance:** 60



**Left:** Director Sandy Cummings and Dr. Charity Woodrum answering questions during the public Q&A session. **Right:** LSU Lagniappe scholars with Dr. Woodrum.

# Reaching for the Stars & Teacher and Educator Meet-and-Greet

Written by Vernita Atkins, *LLPAD Manager*

As part of Dr. Woodrum's visit, **LSU LIGO Physics and Astronomy Demos (LLPAD)** helped coordinate two additional STEM engagement opportunities on January 29: a daytime program for middle and high school students and educators, and an evening meet-and-greet specifically for STEM teachers and educators.

The daytime event, **"Reaching for the Stars,"** was held at the Dalton J. Woods Auditorium in LSU's Energy, Coast, & Environment Building. Dr. Charity Woodrum spoke with middle and high school students and their teachers about her personal and professional journey, from being the first person in her family to graduate from high school to becoming a NASA astrophysicist working with the James Webb Space Telescope (JWST). She also introduced students to some of the significant scientific discoveries made by JWST, including observations of distant galaxies, massive black holes, and other worlds.

The program was designed not only to expose students to current astronomy and astrophysics research, but also to help them see a real and relatable pathway into STEM careers. Math and science teachers were encouraged to bring their classes, and limited travel reimbursement was made available to Title I schools to help increase access for students who might otherwise have difficulty participating.

More than **300** students and educators participated in the daytime event, both in person and virtually.



Middle and high school students at the "Reaching for the Stars" event.

## Reaching for the Stars

**Date:** January 29, 2026

**Time:** 10:00 a.m. - 11:30 a.m.

**Location:** Dalton J. Woods Auditorium, LSU Energy, Coast, & Environment Building

**Audience:** 6th-12 grade

**Attendance:** >300

## Educator Meet-and-Greet

**Date:** January 29, 2026

**Time:** 6:30 p.m. - 8:30 p.m.

**Location:** LSU Faculty Club

**Audience:** Math and Science Educators

**Attendance:** 25

One of the messages Dr. Woodrum shared during her presentation reflected the role that curiosity played in her own path into science:

***“I was so interested in the topic that I decided to go back to school to study physics just to satisfy my own curiosity.” Dr. Charity Woodrum***

Her story was especially meaningful for a K–12 audience. She shared that, as a young student growing up in a small town where she knew no scientists, a future working for NASA once seemed far removed from what she thought was possible. Her journey from that experience to becoming a NASA astrophysicist offered students a powerful example of how curiosity, persistence, and educational opportunity can expand what they imagine for their own futures.

That evening, LLPAD hosted a **Teacher and Educator Meet-and-Greet** with Dr. Charity Woodrum at the LSU Faculty Club. The reception provided math and science educators with an opportunity to meet Dr. Woodrum in a smaller, more informal setting, engage with her and other fellow educators, and discuss tools and resources for their own classroom teaching. The event was offered free of charge to educators, including food, to make the professional engagement opportunity as accessible as possible.

Approximately **25** educators attended the evening meet-and-greet.

Together, the student program and educator reception extended the impact of Dr. Woodrum’s visit beyond the documentary screening by creating direct opportunities for K–12 students and teachers to interact with a NASA astrophysicist and learn more about cutting-edge space science, STEM career pathways, and the James Webb Space Telescope.



Dr. Gabriela González (Boyd Professor, LSU Department of Physics & Astronomy), Vernita Atkins (Manager of LLPAD), Dr. Charity Woodrum, and Sandy Cummings at the Teacher and Educator Meet-and-Greet.

# Mentor Training Workshops

The Office of Undergraduate Research with support from LaSPACE and the College of Science Office of Academic Innovation & Engagement and Department of Physics & Astronomy, hosts a series of Mentor Training workshops based on the nationally recognized curriculum developed by the Center for Improvement of Mentored Experiences in Research (CIMER). Designed to strengthen and enrich the mentoring experience, these workshops are facilitated by CIMER-trained faculty and staff and cover a range of essential mentoring topics for fostering impactful mentorship.

Modules include: Effective Communication, Aligning Expectations, Assessing Understanding, Fostering Independence, Cultivating Ethical Behavior, Understanding Students, Promoting Professional Development, and Articulating Your Mentoring Philosophy & Plan. Mentors who complete all eight modules earn a Mentor Training Certificate, recognizing their commitment to excellence in research mentoring.

## Facilitators

- Colleen Fava, *Director, LaSPACE/NASA EPSCoR*
- Laura Lagomarsino, *Assistant Professor, Department of Biological Sciences*
- Morgan Kelly, *Associate Professor, Department of Biological Sciences, and Interim Associate Dean of Research & Administration, College of Science*
- Rob Hynes, *Professor of Physics, Department of Physics & Astronomy*
- Sarah Ferstel, *Director, Office of Undergraduate Research*
- Zakiya Wilson-Kennedy, *Associate Professor of Chemistry Education, Department of Chemistry, and Associate Dean for Academic Innovation and Engagement, College of Science*

## Faculty Workshop

**Date:** May 18, 2026

**Time:** 8:30 a.m. - 5:00 p.m.

**Location:** Barnes & Noble Conference Room

**Audience:** LSU Faculty

**Attendance:** 30

## Graduate Student Workshop

**Date:** April 24, 2026

**Time:** 8:00 a.m. - 4:30 p.m.

**Location:** LSU Student Union, Vieux Carre Room 325

**Audience:** Graduate Students, Post-Docs

**Attendance:** 38



# **OUTREACH**

# Geaux Science Explorations

The LSU College of Science is dedicated to offering high-quality outreach activities for the Baton Rouge community, supporting the early engagement of science enthusiasts. With assistance from our top scientists and mathematicians, we provide hands-on, science-focused events in our outreach series: Geaux Science Explorations! Each event is tailored to specific grade levels, introducing participants to age-appropriate STEM concepts and fostering a comfortable learning environment.

The Halliburton Foundation has generously funded the Geaux Science Explorations programs for six years for a total of \$100,663.

## STEM & Stories

The LSU College of Science invited children in kindergarten through third grade to explore the worlds of math and science through an exciting science story time adventure led by some of the university's top scientists and mathematicians. Each story time was followed by fun, hands-on activities that allowed young scientists to feed their curiosity and take an even deeper dive into a math and science discovery. We partnered with the East Baton Rouge Parish Library system and the LSU Center for River Studies to host story times at three locations through the metropolitan Baton Rouge area.

### Readers:

- **Dr. Clifton Wagner** – chemist and professor in the LSU Department of Chemistry who read "Everyday, Chemistry" by Julia Sooy.
- **Dr. Gregory Thom** – ornithologist and professor in the LSU Department of Biological Sciences who read "A Peek at Beaks: Tools Birds Use" by Sara Levine.
- **Haley Blakeman** – landscape architect at Moffatt and Nichol and LSU alum who read "Over in a River: Flowing Out to the Sea" by Marianne Berkes.

**Date:** January 31, 2026

**Time:** 10:30 a.m. - 11:45 a.m.

**Locations:** Eden Park Branch Library (chemistry themed), Main Library at Goodwood (biology/bird themed), and the LSU Center for River Studies (coast/river themed)

**Audience:** K-3rd graders





**From left to right:** Participants learn about beaks from bird specimens from the LSU Museum of Natural Science; Dr. Clifton Wagner reads “Everyday, Chemistry” at the Eden Park Branch Library; Participants learn about how sediments are deposited by rivers; Participants view map of Mississippi River delta at the LSU Center for River Studies.

### Participants and Volunteers:

- K-3rd Grade Impact: 52 Participants
  - Main Library at Goodwood: 19
  - Eden Park Branch Library: 12
  - LSU Center for River Studies: 21
- LSU Faculty & Staff: 10
- LSU Grad Students: 11
- LSU Undergraduates: 26
- Other volunteers: 1



**96%**  
would participate again!

Out of parents who completed surveys, 85% said the program exceeded their expectations, 15% said it met expectations, and 0% said that it did not meet expectations. 96% said they would want their child to participate in similar programming in the future.

### Feedback from Parents

*“The professor that read the book on birds was really engaging. My daughter loved this event.”*

*“Very well organized event! Great job Tigers!”*

*“My kids had so much fun and I learned new things too. It was very age appropriate.”*

## Kids' Day at the Museum

The LSU Museum of Natural Science and College of Science hosted its 10th Kids' Day at the Museum. The support provided by **Halliburton** allowed 36 kids in grades 4 through 6 to spend a day exploring the reptiles, birds, fish and other exciting collections in the internationally recognized Museum of Natural Science (MNS) at LSU. Participants lunched and chatted with some of LSU's scientists, went on a behind the scenes tour of the collections, and participated in eight hands-on activities hosted by a variety of LSU units including the MNS, the Department of Chemistry, the Department of Geology & Geophysics, the Department of Biological Sciences, the Department of Physics & Astronomy, LSU Geaux Teach, the LSU Herbarium, and the Mississippi River Delta Initiative (MissDelta).

### Featured Scientists:

- **Dr. Carol Wilson** – geologist and professor in the LSU Department of Geology & Geophysics
- **Dr. Catherine Deibel** – physicist and professor in the LSU Department of Physics & Astronomy
- **Dr. Sydney Moyo** – biologist and professor in the LSU Department of Biological Sciences
- **Dr. Victor Garcia-Lopez** – chemist and professor in the LSU Department of Chemistry

Participants must apply and be selected to participate in the program. The application requires an essay about what important question they would like to answer as a scientist or mathematician, why this question is important, and how you would use science and math to answer your question.

### Coaching Your Child for STEM Parent Program

The event also includes a "Coaching Your Child for STEM" session for parents. The session gives parents pertinent information to help them encourage their child's interests in math and science. Session activities also include a tour of the MNS. This year, 62 students applied and 40 were selected to participate.

**Date:** February 21, 2026

**Time:** 10:30 a.m. - 2:45 p.m.

**Location:** LSU Museum of Natural Science and LSU Student Union, Capital Chamber Room 329



**From left to right:** Director and Curator, Dr. Prosanta Chakrabarty shows parents a goliath grouper head during the parent tour; Participants learn about the Louisiana coastline; A participant observes static electricity with the Van de Graaff generator.

**Audience:** 4th-6th graders

**Participants and Volunteers:**

- 4th-6th Grade Impact: 36 Participants
- Parent Participants: 31
- LSU Faculty: 8
- LSU Staff: 8
- LSU Graduate students: 16
- LSU Undergraduates: 22
- Other volunteers: 3

# 100%

of parents surveyed said they found the parent program useful and they would want their child to participate in similar programming in the future!

## Feedback from Parents

*"Please continue to have these! We are grateful and would love to attend again."*

*"Excellent parent session & tour & experiments"*

*"My son had so much fun & tour was great. Thank you!"*

## Our Earth, Our Laboratory

The LSU Department of Geology & Geophysics and the College of Science hosted its 6th Our Earth, Our Laboratory — a day of hands-on earth science fun led by some of LSU's geologists and sponsored by **Halliburton** and the **MissDelta program**. Participants explored the different properties of mineral samples, learned about materials and motions generated by earthquakes and volcanoes, observed how the Mississippi River carries sediment and builds land, and lunched with LSU geologists and geology students. Similar to Kids' Day at the Museum, participants must apply and be selected to participate in the program. The application requires an essay about what interests them about geology and what questions they have about the topic. 18 students were selected to participate.

**Featured Scientists from Department of Geology & Geophysics:**

- **Dr. Carol Wilson**, Associate Professor
- **Dr. Dominique Garello**, Assistant Professor of Instruction
- **Dr. Karen Luttrell**, Associate Professor
- **Dr. Sam Bentley**, Professor and Billy and Ann Harrison Chair in Sedimentary Geology

**Date:** April 25, 2026

**Time:** 9:30 a.m. - 2:00 p.m.

**Location:** LSU Howe-Russell Geoscience Complex

**Audience:** 7th-8th graders

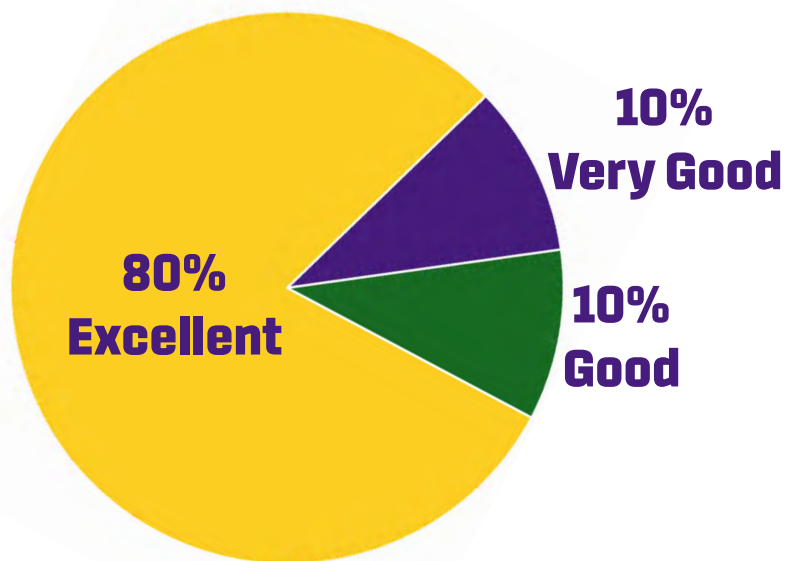




**From left to right:** Observing mineral properties up close; Sifting sediments; Using the delta table to learn how rivers carry sediment and build land.

**80%**

would recommend the program to others!



Out of the 7th and 8th grade students who attended, 80% said they would recommend the program to others. When asked “How would you rate the program?,” 80% said the program was excellent, 10% said it was very good, 10% said it was good, and 0% said that it was fair or poor.

## Geaux Science Explorations Impact

**2,301**

individuals since 2018

| Audience                     | Impact 2025-2026 | Impact Since 2018 |
|------------------------------|------------------|-------------------|
| K-12 Participants & Families | 129              | 1444              |
| LSU Faculty/Staff            | 30               | 236               |
| Graduate Students            | 31               | 185               |
| Undergraduate Students       | 50               | 399               |
| Other Volunteers             | 4                | 37                |
| <b>Total Impact</b>          | <b>244</b>       | <b>2301</b>       |

# MissDelta

## Mississippi River Delta Transition Initiative

The Workforce Development Initiative (WDI) of the Mississippi River Delta Transition Initiative (MissDelta), funded by the National Academies Gulf Research Program, aims to create a broader, talented, and resilient STEM workforce, especially in coastal and environmental sciences, in the Gulf Coast region (GCR) by creating a robust support network that promotes engagement in research, mentorship, and academic advancement in coastal and environmental science for K–20 students. This initiative leverages multiple partnerships across institutions, including the local universities within the GCR and Louisiana Universities Marine Consortium (LUMCON), to embed coastal and environmental themes into educational pathways. The K–12 program introduces students and teachers to regional challenges through field experiences and provides mentoring from researchers to foster early exposure to coastal and environmental sciences. The teacher professional development equips educators with tools to spark student curiosity and interest in coastal and environmental research. Undergraduate students also engage in hands-on research aligned with the Gulf Scholars Program’s core themes and participate in place-based field learning experiences, mentoring opportunities, and tailored curricula at participating universities. Graduate-level initiatives provide advanced experiential research, professional development, and a multi-layered mentoring model, drawing on the successful framework of the National Science Foundation Bridge to Doctorate program of Louisiana State University (LSU). A comprehensive evaluation framework investigates the effects of these WDI efforts with respect to science identity, interest, self-efficacy, and workforce readiness. By creating opportunities for coastal and environmental research for students within the GCR, the MissDelta WDI supports their academic and career trajectories and builds capacity for a sustainable and expanded coastal research community.

### MissDelta LSU WDI Team

- PI: Dr. Sam Bentley, *Professor and Billy and Ann Harrison Chair in Sedimentary Geology, LSU Department of Geology & Geophysics*
- WDI Core Lead: Dr. Zakiya Wilson-Kennedy, *Associate Professor of Chemistry Education, Department of Chemistry, and Associate Dean for Academic Innovation and Engagement, College of Science*
- WDI Coordinator: Dr. Dominique Garelo, *Assistant Professor of Instruction, LSU Department of Geology & Geophysics*
- WDI GA: Mariam Afuwape, *Graduate Student, LSU Department of Chemistry*

## MissDelta WDI Monthly Meetings

Workforce Development Initiative (WDI) monthly virtual meetings are open to the entire MissDelta consortium. These meetings provide a forum for collaboration, engagement, and knowledge sharing among partner institutions. Throughout the academic year, meetings focus on key WDI priorities, including curriculum development, community outreach and informal education, student recruitment pipelines, undergraduate field experiences, mentorship, and progress updates on WDI implementation plans. These meetings foster coordination across partners while highlighting ongoing efforts and opportunities to strengthen workforce development across the MissDelta consortium.

### September 2025

#### Shared Curriculum and Course Topics

Paul Kim, *Grambling State University*

### October 2025

#### Community Outreach/Informal Education

Murt Conover, *Louisiana Universities Marine Consortium (LUMCON)*

### November 2025

#### Student Pipelines

Jackie McComb, *Southern University Baton Rouge*  
Brent Thoma, *Jackson State University*  
Aaron Ridall, *University of Mississippi*

### January 2026

#### MissDelta Partner Institutes Check In

- Partner institutes report out on progress, plans, and challenges, and requested support for their WDI action plans for year three of grant

### February 2026

#### How to Deepen Learning and Engagement in Undergraduate Field Experiences

Sam Bentley, *LSU*, Mariam Afuwape, *LSU*

### March 2026

#### Strengthening Faculty Mentorship

Brent Thoma, *Jackson State University*

- Strengthening faculty mentorship of MissDelta undergraduates and graduate students with the goal of how we can better support MissDelta faculty in mentoring.

### May 2026

#### MissDelta Partner Institutes Check In

- Partner institute representatives report out on their WDI activities completed this year highlighting efforts, successes, and challenges.

## Swamp Tour Place-Based Learning Experience

The MissDelta's Workforce Development Initiative supported a place-based learning experience with the EnvironMentor's program. The trip brought together undergraduates, EnvironMentor's graduate students and high school students on two guided swam tours by McGee's Swamp Tours focused on wetland systems and hands-on boat-based field methods led by MissDelta researchers.

**Date:** March 28, 2026

**Time:** 8:00 a.m. - 4:00 p.m.

**Location:** McGee's Swamp Tours (Henderson, LA)

**Audience:** High School Students, Undergraduate Students

#### Participants and Volunteers:

- Scotlandville Teacher: 1
- EnvironMentors staff: 3
- Graduate students: 12 (EnvironMentors), 3 (MissDelta - LSU, SUBR)
- Faculty: 2 (LSU, SUBR)
- Undergraduates: 1 (LSU)
- EnvironMentors High School Students: 2



**Top Left:** McGee's Tour Captain Ryan discussing wildlife and plants in the Atchafalaya basin.

**Top Right:** LSU Graduate student Mike Rabalais demonstrating the Russian peat corer and talking about wetland soils.



**Bottom Left:** The high school students learning how to use a Munsell color chart on a wetland sediment core.

## MissDelta Undergrad Excursions to LUMCON

Students learned how to take field samples and experience hands-on data collection in the marsh and along the coast through two LUMCON activities. Students went on a four-hour R/V Acadiana boat trip gaining educational hands-on oceanographic data and sample collection experience. Students participated in the collection of plankton, nekton, and benthic samples to learn more about bay ecosystems and estuaries. All activities on board are about collecting data that helps LUMCON monitor the area around the Marine Center. Students also participated in a second activity within the marsh next to LUMCON facility. The students conducted a study of salt marsh ecology from vegetation transects, periwinkle assessment, and water quality analysis. Students also learned about marsh accretion rates and the importance of tropical storms in providing sediment to the marshes from collecting a sediment core using a Russian Peat Corer. The event wrapped up with an interactive whole-group discussion designed to help participants reflect on their field experience, share perspectives, and connect what they learned in the field activities to academic and career pathways.

**Dates:** October 10-12, 2025 and April 17-19, 2026

**Location:** Louisiana Universities Marine Consortium (LUMCON)

**Audience:** Undergraduates

### Participants and Volunteers:

- Faculty: 9 (LSU, JSU, SUS, Grambling, UAB, and Alcorn)
- Post-docs: 2 (USM)
- Graduate Students: 2 (LSU)
- Undergraduates: 66 (LSU, JSU, USM, SUS, UAB, Grambling, Alcorn, and Tulane)



**Above Left:** Undergrads learning about water quality and how to measure water turbidity with a secchi disk, in addition to measuring salinity and pH of the water. **Above Right:** Josie, a LUMCON educator, training undergrads on how to collect marine microorganisms along LUMCON's docks to view under microscopes.

**Photos on Next Page:** (1) Dr. Jacqueline McComb (Southern University Baton Rouge) and undergraduates learning how to do marsh transects- looking at vegetation and organisms within the marsh! (2) Dr. Jacqueline McComb (Southern University Baton Rouge) and undergraduates collecting a marsh core next to the LUMCON facility using a Russian Peat Corer to look at the subsurface layers and what they can tell us about the marsh. (3) Mariam Afuwape, the LSU-WDI graduate assistant, leading a culminating discussion with the undergraduate participants on their field experience reflections, sharing their perspectives, and connecting their learning to academic and career pathways. (4) Undergraduates identifying marine microorganisms in a LUMCON lab.



## Feedback from Undergraduate Participants

*"Participating in such a refreshing and informative experience has been a great pleasure and a valuable learning opportunity. Through this program, I had the chance to participate in true fieldwork and experience the beauty of the delta. Whether being knee-deep in the marsh or analyzing sea animals while dolphins followed closely behind the boat, I greatly enjoyed this experience, and it has encouraged me to further explore environmental science." - Tulane University Student*

*"I honestly enjoyed gaining the experience of going out on the water. Being from Baton Rouge, I wasn't exposed to much outside of my hometown," - Southern University Student*

*"My biggest takeaway from the LUMCON trip was going out on the boat, collecting different types of marine life, and tracking data on them in real time. It gave me a better understanding of how field research works and how scientists gather and analyze data directly from natural environments." - Southern University Student*

## R/V Point Sur Excursion for Undergraduates

Undergraduates from various MissDelta partner institutes and Gulf Scholars programs received hands-on experience on an ocean research vessel. One group of 11 undergraduates got to experience life on a research vessel while collecting various oceanographic data on a 5-day trip from Gulfport, MS to Venice, LA and back. A second group of undergraduates took a 1-day cruise down Southwest Pass and along Louisiana coast on the Point Sur research vessel to learn about various oceanographic data collection methods. Students on the R/V Point Sur gained hands-on experience with column conductivity-temperature depth profiles, seafloor sediment collection by multicore and gravity core, luminophore particle tracking to study bioturbation, and geophysical survey data collection.

It was led by **Dr. Sam Bentley** (LSU), **Dr. Aaron Ridall** (USM) and **Dr. Emily Wei** (LSU) along with their science team.

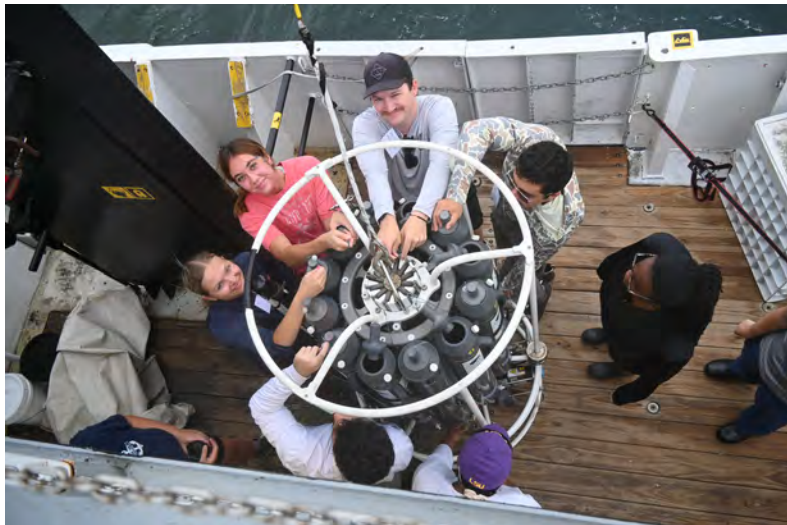
**Date:** July 16-20, 2026

**Location:** Gulfport, MS and Venice, LA

**Audience:** Undergraduates

### Participants and Volunteers:

- Faculty: 4 (LSU, USM, and Alcorn)
- Post-Docs: 1 (USM)
- Graduate Students: 5 (LSU, USM)
- Undergraduates: 19 (LSU, USM, SUS, JSU, Alcorn, BRCC, Tulane)



**Top Left:** Undergraduates on the R/V Point Sur collecting sediment core samples from deep ocean cores collected by a MC800 Multicore.

**Top Right:** Undergraduates on the deck of the R/V Point Sur setting up the Conductivity-Temperature-Depth Profiler to deploy for water-column profiling and water sampling.

**Bottom Left:** Undergraduates conducting lab work on the R/V Point Sur.

## Connecting with MissDelta HBCU Partner Institutes

Dr. Carol Wilson led a wetland fieldwork expedition with Dr. Monica Burr from Alcorn State University (ASU) and three ASU undergraduate students to provide hands-on coastal fieldwork and data collection experience. During the field excursion, students visited wetland monitoring sites, collected seasonal measurements, and connected field observations with ongoing laboratory processing of sediment tile samples collected last June for organic content. The undergraduates' research will be presented at an Alcorn State research symposium, with the data also contributing to presentations at the Geological Society of America South-Central Section meeting and GeoGulf Conference this past March.

**Date:** February 19-21, 2026

**Location:** Belize Delta

**Audience:** Undergraduates

**Participants and Volunteers:**

- Faculty: 2 (LSU, Alcorn)
- Undergraduates: 4 (LSU, Alcorn)
- Boat Captain: 1 (CSI-LSU)



MissDelta researchers from Alcorn State University, Tulane and LSU ventured out into the wetlands of the Balize delta to collect samples from sediment tiles.

# Neptune Pass Teacher Workshop

The MissDelta Initiative, LA Sea Grant, and Delta Discovery Tours partnered to host a two-day professional development workshop for twelve 4th-12th grade educators. Teachers took boats to barrier island on the sediment-starved west side of the Birdsfoot Delta and to Neptune Pass where new land is being built. The workshop raised awareness and built understanding of the complex coastal and river dynamics shaping southern Louisiana, while demonstrating how scientists study this rapidly changing region through field observations, water and sediment sampling, and ongoing research. Through hands-on field experiences with MissDelta researchers, teachers gained local knowledge and experiences to share with their students.

**Date:** June 29-30, 2026

**Location:** Buras, LA

**Audience:** Teachers (4th - 12th grade)

## Participants and Volunteers:

- MissDelta researchers and students: 8 (USM, Tulane, LSU, JSU)
- LA Sea Grant staff: 4
- Delta Discovery Tour: 4
- Louisiana Teachers: 12



**Left:** Dr. Emily Farrer, a MissDelta researcher at Tulane University, along with Louisiana educators standing on a newly formed land in Neptune Pass sieving a sediment core. Credit: Photo by Louisiana Sea Grant College Program. **Right:** Drs. Aaron Ridall and Kim De Mutsert, MissDelta researchers at the University of Southern Mississippi, teaching the educators how they use seine nets to collect and identify marine organisms for their research. Credit: Photo by Louisiana Sea Grant College Program

## Feedback from Teachers

*"The chance to experience natural environments in my Parish and to make connections with local guides." - 4th-12th grade teacher from Plaquemines Parish schools*

*"I learned a lot about local species, Neptune Pass, salinity, coastal reconstruction projects, and how I can teach these concepts to my students." - 7th and 8th grade teacher from J.C. Ellis*

## MissDelta Summer REU program

Six undergraduates participated in a 10-week-long MissDelta REU program at LSU Baton Rouge campus from May 26 - August 1, 2026. The students engaged with LSU faculty in MissDelta research projects and developed skills thru research-immersive learning experience. The program ends with a culminating event at LSU's Summer Undergraduate Research Forum which the REU students will present their summer research.

| REU Student              | Home Institution                   | Mentor                | Project                                                                                                                                                                        |
|--------------------------|------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kadee Rodriguez-Gonzales | Alcorn State University            | Sam Bentley           | A Recent History of the Subaqueous Lower Mississippi River Delta: Radionuclide Chronologies and Sedimentological Analyses of Gravity Core PS25_01-06GC                         |
| Tai Valenzuela           | College of Coastal Georgia         | Traci Quirk           | Development of Soil Properties in Beneficial Use Sites in the Lower Mississippi River Delta: The Influence of Age and Elevation                                                |
| Malai Harrington         | Tulane University                  | Traci Birch           | Co-Production of Adaptive Management Strategies for Birdfoot Delta                                                                                                             |
| Seth Allhiser            | University of Southern Mississippi | Guilio Mariotti       | Clay's Impact on Wave Transport in Sandy Substrates                                                                                                                            |
| Zoe Kirejczyk            | Louisiana State University         | Zakiya Wilson-Kennedy | Investigating How a Coastal Louisiana Professional Development Shapes Teachers' Self-Efficacy, Readiness, and Instructional Intentionality for Place-Based Coastal Instruction |
| Joshua Sherman           | Louisiana State University         | Yanda Ou              | Investigating the Variability of Low-salinity plume in the Mississippi River Birds-foot Delta Using ROMS Simulations                                                           |

# MissDelta REU Orientation and Workshops

**May 27, 2026**

## **Mentor and Student Orientations**

**June 2, 2026**

## **Center for River Studies Tour**

- MissDelta REU students learned about Louisiana's coastal history, the importance of the Mississippi River Delta and the ongoing coastal land-loss crisis in addition to viewing LSU's Lower Mississippi River Physical Model.

**June 2 and 9, 2026**

## **Career Pathways & Research**

- MissDelta REU mentors' career pathways and research. The REU students learned about the REU mentors research and the various career pathways.

**June 23, 2026**

## **Miss Delta Graduate Panel**

- Four graduate students working with MissDelta talked about their experiences as a graduate student and applying to graduate programs. The REU students got the opportunity to ask questions and discuss graduate school.

**July 7, 2026**

## **Peer Review and Constructive Feedback**

- The REU students learned and discussed the importance and what effective peer review and constructive feedback is. Following the discussion, the students peer reviewed each other's research report drafts and provided constructive feedback.

**July 23, 2026**

## **Poster Draft Feedback**

- REU Students walked through their drafts and received constructive feedback from their peers. SURF event.

**July 30, 2026**

## **Virtual Poster Presentations for the MissDelta Initiative**

- MissDelta REU students along with MissDelta undergrads from partner institutes gave 5-7 minute virtual presentations on their summer research to the MissDelta community through Zoom. This allowed the REU students to practice their presentations for SURF the next day.



**Top:** MissDelta REU students visiting LSU'S Center for River Studies.

**Bottom:** MissDelta's 2026 REU students with their posters and mentors at SURF 2026.

## MissDelta K-12 Outreach

MissDelta researchers and students volunteer to lead coastal-based educational activities in various outreach events including Ocean Commotion (2025), Wildwood Elementary school's STEM Day (2025), and LSU's Geaux Science Explorations (2026) STEM and Stories, Kids Day at the Museum, and Our Earth, Our Lab events. Hands-on educational activities engage K–12 students in exploring coastal and river processes, fostering awareness of Louisiana's coastal challenges while building interest in science.

October 28, 2025

### Ocean Commotion



**Left:** MissDelta LSU graduate students, Adam Gartelman and Ziyang Lei, explaining how coastal scientists study deltas by collecting sediment cores. Students were able to see and touch a real sediment core from the Wax Lake Delta and collect a core themselves from Play-Doh layers with a straw.

November 7, 2025

### Wildwood Elementary School's STEM Day



**Left:** LSU Geology and Geophysics major, Junior Colonna, talking about and demonstrating submarine landslides to Wildwood Elementary students. **Right:** MissDelta LSU students, Nathan Figueredo and D'Metrie King, talking about why we need to look at sediment underground and show Wildwood Elementary students how to “take a sediment core” using straws and playdough.

January 31, 2026

## STEM & Stories at the LSU Center for River Studies



**Above:** 1) Haley Blakeman subbing in for Dr. Traci Birch, introduces the Mississippi River delta before reading 'Over the River' to the children. 2) A student participant learning about Louisiana wetland vegetation's role in slowing water and trapping sediment. 3) LSU Undergrad Jameson Woodall explaining how scientists study the Mississippi Delta and Gulf Coast history with sediment cores. 4) LSU AND SUBR MissDelta team of faculty, grad and undergrad students for STEM and Stories.

February 21, 2026

## Kids' Day at the Museum



**Left:** LSU Undergrad Jameson Woodall, grad student Mariam Afuwape, and Dr. Dominique Garelo leading the MissDelta activity. Students learn about barrier islands, coastal erosion, and storm impacts along Louisiana's coast.

## April 26, 2026

### Our Earth, Our Laboratory



1) Dr. Sam Bentley taking about the Mississippi Birdsfoot delta and pointing out where Wax Lake delta is located. 2) Dr. Sam Bentley, graduate student Faith Walton, and undergraduate Jameson Woodall talking about sediment cores from the Wax Lake delta. 3) Dr. Carol Wilson in the sediment core lab showing the students different sands from across the world and demonstrating how sediment grains are separated by size. 4) Geology and Geophysics Department faculty Dr. Carol Wilson and Dr. Karen Luttrell leading geoscience themed hands-on activities about volcanoes, volcanic rocks, and earthquakes. 5) Geology and Geophysics Department graduate students leading geoscience themed hands-on activities about minerals. 6) Dr. Carol Wilson in the sediment core lab talking about what happens to the sediment cores once they are brought back to the lab.



# **APPENDIX**

# Student Presentations

**A'Maya Freeman.** *How First-Year Academic Expectations Shape First-Year Students' Perception of STEM.* LSU Discover Day, Baton Rouge, LA, April 17, 2026.

**Alba Romero Martín,** Emily Wei, Faith Walton, Sam Bentley, Jameson Woodall & D'metrie King. *Spatial Variability in Marine Sediment Deposition during the Spring Flood Season on the Mississippi River Delta Front.* LSU Summer Undergraduate Research Forum (SURF), August 1, 2025.

**Cyra Ford & Xiaochen Zhao.** *Salinity Intrusion in the Lower Mississippi River Delta: Trends and Connections to River Flow and Drought Conditions.* LSU Summer Undergraduate Research Forum (SURF), August 1, 2025.

**Elizabeth Blankenship,** Kaitlyn R. Gooch, Madelyn T. Kurtz, Amaya A. Wanniarachchi & Carol Wilson. *Analyzing Sedimentological Differences between Saline and Freshwater Marsh Platforms in Louisiana.* LSU Summer Undergraduate Research Forum (SURF), August 1, 2025.

**Faye Sciple.** *Deeper Learning: Exploring Collaboration and Creative Interaction within General Chemistry.* LSU Discover Day, Baton Rouge, LA, April 17, 2026.

**Lila Duarte,** Cullen Cheramie, Omid Boushehri, Mackendy Ceragene, Reilly Corkran, Shabnam Mirheidarian & Traci Birch. *State Problems, Local Solutions: Small Scale Restoration Projects in Plaquemines Parish.* LSU Summer Undergraduate Research Forum (SURF), August 1, 2025.

Mayar Nickols, Evan McConnell, Enson Li, Hanna DeVillier, **Giancarlo Lara,** and Andrew Beard. *Multi-Directional Mechanical Testing of Soft Biological Tissues.* LSU Discover Day, Baton Rouge, LA, April 17, 2026.

**Jada Yeboah.** *Synthesis of aza-BODIPY Fluorophores for Conjugation with EGFR-Targeting Molecules.* LSU Discover Day, Baton Rouge, LA, April 17, 2026.

**Joshua Sherman,** Yanda Ou. *Investigating the Variability of Low-salinity plume in the Mississippi River Birds-foot Delta Using ROMS Simulations.* LSU Summer Undergraduate Research Forum (SURF), July 31, 2026.

**Madison Woodson.** *Effects of Urbanization on the Availability of Soil Organic Matter.* LSU Discover Day, Baton Rouge, LA, April 17, 2026.

**Malai Harrington,** Maya Maes-Johnson, Hemanta Pohkarel, Bijaya Adhikari, Claire Perrault, Traci Birch. *Co-Production of Adaptive Management Strategies in Birdfoot Delta.* LSU Summer Undergraduate Research Forum (SURF), July 31, 2026.

**Kadee Rose Rodriguez-Gonzales,** Natali A. Barnes, Giancarlo J. Portocarrero, Faith Walton, Samuel J. Bentley, Emily A. Wei. *A Recent History of the Subaqueous Lower Mississippi River Delta: Radionuclide Chronologies and Sedimentological Analyses of Gravity Core PS25\_01-06GC.* LSU Summer Undergraduate Research Forum (SURF), July 31, 2026.

**Seth Allhiser,** Amber Tymul, Giulio Mariotti. *Clay's Impact on Wave Transport in Sandy Substrates.* LSU Summer Undergraduate Research Forum (SURF), July 31, 2026.

**Tatiana "Tai" Valenzuela,** Tracy Quirk. *Development of Soil Properties in Beneficial Use Sites in the Lower Mississippi River Delta: The Influence of Age and Elevation.* LSU Summer Undergraduate Research Forum (SURF), July 31, 2026.

**Wesley Rawlins & Giulio Mariotti.** *Same Flow, Less Mud? Exploring Hysteresis in the Lower Mississippi River.* LSU Summer Undergraduate Research Forum (SURF), August 1, 2025.

**Zoe Kirejczyk,** Mariam Afuwape, Dominique Garelo, Zakiya S. Wilson-Kennedy. *Investigating How a Coastal Louisiana Professional Development Shapes Teachers.* LSU Summer Undergraduate Research Forum (SURF), July 31, 2026.

# Current Grants

**Halliburton Foundation, Inc. #2025050030** "The LSU-Halliburton Pathways to Explore Science and Geosciences," **PI: Zakiya Wilson-Kennedy, Co-PI: Valerie Stampley, Cynthia Peterson, Budget: \$10,000**, Period: 9/2025 – 8/2026.

**Howard Hughes Medical Institute (HHMI) Driving Change Learning Community Grant**, PI: Stacia Haynie, Co-PIs: **Cynthia Peterson**, Dereck Rovaris, Jeremiah Shinn, Jose Aviles, **Zakiya Wilson-Kennedy**; Site: Louisiana State University; **Budget: \$60,000**; Award Period: 03/01/21 – 03/31/26

**National Academies of Sciences - Gulf Research Program #SCON-10000883**, "Mississippi River Delta Transition initiative (MissDelta). Consortium Lead: Sam Bentley; Consortium Budget: \$21,998,885, Period: 8/2023-7/2028. **LSU Workforce Development Initiative: Zakiya Wilson-Kennedy (Lead), Budget: \$1,716,744**; Period: 12/2024-7/2028.

**National Science Foundation #2009765**, "Louis Stokes Science, Technology, Engineering, and Mathematics (STEM) Pathways and Research Alliances: Louis Stokes Louisiana Alliance for Minority Participation (LS-LAMP)," PI: Patrick Mensah, co-PIs: Diola Bagayoko, Gloria Thomas-Fuller, Carrie Robison, and Christopher Guillory, Site: Louisiana Board of Regents, Budget: \$6,200,000; LSU Campus Coordinator: **Zakiya Wilson-Kennedy, LSU Budget: \$205,000**, Award Period: 2020 – 2025.

**National Science Foundation #2216631**, "RaMP: The Louisiana Graduate Network in Applied Evolution (LAGNiAppE) to strengthen regional connections and broaden the STEM workforce," PI: Laura Lagomarsino; Co-PIs: Nicholas Mason, Morgan Kelly, **Zakiya Wilson-Kennedy**, Jeremy Brown; Site: Louisiana State University; Period: 9/1/2022 – 8/31/2026; **Budget: \$2,999,753**.

**National Science Foundation, #2345136**, "LSU Noyce Track 1: Preparing Secondary STEM Teachers for High-Needs Settings Using Structured Mentoring," PI: James Madden, co-PIs: Joshua Ellis, Stephanie Givens, **Zakiya Wilson-Kennedy, Budget: \$1,187,387**, Award Period: 08/01/2024-07/31/2029.

**National Science Foundation #2444876**, "PAESMEM Conference: Igniting Excellence in STEM Mentoring," **PI: Zakiya S Wilson-Kennedy, Budget: \$100,000**, Period: 9/2024 – 8/2026.

**National Science Foundation**, "RESS: Promoting Excellence and Critical Education in STEM (PEACE in STEM)," PI: Petra Robinson, Co-PIs: **Zakiya Wilson-Kennedy**, Bethany Hager, Ali McMillan, and Golden Richard, **Budget: \$523,427**; Period: 10/01/2025 – 09/30/2029.

**Shell Foundation**, "Problem-Based Learning," **PI: Zakiya Wilson-Kennedy, Co-PI: Cynthia Peterson, Budget: \$15,000**, Period: 9/2025 - 8/2026.

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