



LASPACE 2025 STRATEGIC PLAN

About LaSPACE

The Louisiana Space Grant Consortium ([LaSPACE](#)), administered at Louisiana State University, is a statewide consortium established in 1991 under the National Space Grant College and Fellowship Program, which is a national network managed by the National Aeronautics and Space Administration (NASA) that includes all 50 states along with the District of Columbia and the Commonwealth of Puerto Rico. LaSPACE is comprised of higher education institutions, state education boards, and non-profit organizations with NASA-related interests. Current affiliates include three educational boards or systems, five community colleges, five Historically Black Colleges and Universities (HBCU), three research intensive universities, six research active universities, six four-year universities, two workforce development organizations, and nine informal education non-profit organizations. Together we work to develop, support, and promote NASA-aligned STEM research, education, and public literacy in Louisiana.

LaSPACE serves the state primarily through a portfolio of competitively awarded funding opportunities for students, faculty, and staff at higher education institutions in Louisiana to participate in research, development, and training projects in areas of priority to NASA and Louisiana. We also develop and deliver unique opportunities for direct participation in professional development and hands-on experiential projects. LaSPACE promotes scientific literacy in the state by participating in public STEM events and providing support to both formal and informal educators in Louisiana.

Much of the LaSPACE NASA funding and jurisdiction cost share is devoted to competitively awarded projects that address NASA needs across all [Mission Directorates](#) (Aeronautics, Exploration Systems, Science, Space Operations, and Space Technology). Louisiana has identified priority research areas including advanced manufacturing, materials, clean technology & energy, coastal & water management, life sciences, and bioengineering. These areas are consistent with NASA needs and LaSPACE anticipates supporting projects in these areas over the next four years.

The fundamental premise underlying our programming is involvement in research at all levels (undergraduate, graduate, and faculty) that aligns with NASA research priorities and mission goals, and then leveraging that infrastructure to increase NASA-relevant science literacy around the state. Building transdisciplinary teams that perform research and provide educational opportunities is the key to developing the 21st century workforce desired by both NASA and the State of Louisiana.

LaSPACE's strategic plan and programmatic priorities are driven by the State of Louisiana's research, education, and workforce development needs, while being responsive to National STEM goals, [NASA's Strategic Plan](#), current NASA Mission Priorities (as detailed in the NASA EONS 2024 Omnibus Appendix 8), and NASA's Office of STEM Engagement (OSTEM) performance goals and objectives. The LaSPACE vision and mission complement and reflect the overarching vision and mission of the Agency while recognizing the unique capabilities and needs of Louisiana. The LaSPACE operational approach is grounded in our Core Values of Service, Partnership, Authenticity, Curiosity, and Engagement.

LaSPACE Vision

In alignment with NASA and directed by LaSPACE, Louisiana will play a significant role in building the Nation's next generation of scientists and explorers.

LaSPACE Mission

The LaSPACE Mission is to engage college students, academic institutions, science organizations, government agencies, and industry in Louisiana to create an academic and professional STEM ecosystem by recruiting, retaining, and training a skilled STEM workforce in Louisiana.

LaSPACE Core Values

Service

LaSPACE operates from a philosophy of service, always mindful of our role in growing the STEM ecosystem of Louisiana via financial and intellectual investments in workforce and research development in the state. LaSPACE is committed to a culture of adaptability and continuous improvement. We create intentional feedback loops for participants in our programs to continuously revise and refine our processes, programs, and practice.

Partnership

Strong relationships with and among the various institutions, agencies, and organizations within the Louisiana STEM ecosystem allows LaSPACE and our partners to leverage limited resources into authentic and impactful collaborative opportunities beyond our own silos. LaSPACE engages our local administrative partners, participates actively within the national space grant community, and is responsive to our Agency leadership.

Authenticity

LaSPACE prioritizes authenticity in our programs and practices. We create and support opportunities for authentic NASA-relevant projects and professional development activities for members of the LaSPACE community.

Curiosity

Curiosity is foundational to discovery and growth. Like the STEM disciplines we support, the management and execution of LaSPACE programming benefits from a culture of curiosity which enables us to adapt to an ever-changing environment, to increase participation in our efforts, and to identify new and effective ways to serve our community.

Engagement

Comprehensive Engagement is critical to LaSPACE as a statewide consortium within a national network. LaSPACE engages our community locally and nationally to create programs and practices that build the STEM ecosystem in Louisiana while supporting the priorities of NASA.

NASA Drivers

The NASA Office of STEM Engagement maps its objectives for the National Space Grant Program to NASA's Strategic Goal 4: Enhance Capabilities and Operations to Catalyze Current and Future Mission Success. NASA investments in STEM engagement are focused on building a future STEM workforce, through program elements designed to bolster capacity and attract, engage, and enable students to move toward STEM careers through NASA-unique opportunities. The key objectives within this strategic framework are:

- Attracting students to STEM through unique learning opportunities that spark interest and provide connections to NASA's mission and work.
- Engaging students in authentic learning experiences with NASA's people, content, and facilities.
- Enabling students to contribute to NASA's work in exploration and discovery through challenges and work experiences.

State of Louisiana Drivers

As a federal / state partnership the Space Grant program must address the priorities and needs of each jurisdiction. For the Louisiana Space Grant Consortium these jurisdictional needs are articulated in several state policy documents and reports developed by the Louisiana Board of Regents (LA BoR), the Louisiana Economic Development Agency (LED), and Louisiana State University, the state's flagship university and the lead institution for LaSPACE.

LaSPACE consults the LA BoR's [Master Plan for Public Postsecondary Education in Louisiana](#) and the [2023 Year Four Review of the Master Plan](#) for overall strategic guidance. Established in 2010 and updated in 2024, [Fostering Innovation through Research in Science and Technology in Louisiana \(FIRST Louisiana 2030\)](#) is the statewide plan that will help chart directions for institutional planning and update the foundation for a comprehensive statewide approach to science and technology research, development, and innovation. Many of FIRST Louisiana's priorities and objectives mirror the STEM goals of the Agency and the Nation. Louisiana Economic Development identifies [10 key industries](#) for the state, of which 6 align seamlessly with NASA, especially the Science and Space Technology Mission Directorates: Advanced Manufacturing, Aerospace, Energy, Life Sciences, Technology, and Water Management. [LSU's Scholarship First Agenda](#) identifies five priority research areas for the LSU system which mirror research programs at NASA.

LA BoR, LED, and LSU share common goals to improve college enrollment and retention, retain STEM talent in the state, and grow local infrastructure to support innovative research and development while developing research infrastructure in the state that contributes to NASA research priorities.

LaSPACE Strategic Goals & Objectives

There is synergy between NASA and Louisiana STEM goals and objectives. Therefore, the LaSPACE Strategic Goals and Objectives flow directly from the objectives of the NASA Office of STEM Engagement, while maintaining a commitment to the research, educational, and economic development priorities of the state. The goals and objectives detailed here will guide the execution of programs and activities during the next multiyear Space Grant award cycle (06/10/2025-06/09/2029). However, we view the LaSPACE strategic plan as living document, responsive and adaptive to changing requirements and priorities. Changes and revisions will be made sparingly, but as needed, and will be shared with our stakeholders locally and nationally.

LaSPACE Strategic Goal #1 (LASG1): Maintain and evolve a cooperative, effective, and comprehensive consortium of Louisiana institutions to increase participation in NASA-related research, education, and economic development activities.

- **Objective 1.1 (LAO1.1):** Strengthen relationships with and participation of LaSPACE Affiliates.
 - Measures:
 - Improve affiliate representative vacancy rate to $\leq 10\%$.
 - Make 2-3 annual affiliate visits to under-participating campuses.
 - Make 1-2 campus visits to actively participating affiliates.
 - Make 1-2 affiliate visits to non-higher education institutions.
 - Host at least 3 quarterly virtual meetings for the LaSPACE community.
 - Hold virtual office hours for the LaSPACE community at least twice annually.
 - Hold a two-day in-person annual meeting at a different affiliate campus each fall.
 - Add all new LaSPACE program participants to our listservs; regularly scout affiliate campuses for new faculty and student organizations to add.
- **Objective 1.2 (LAO1.2):** Maintain and leverage national, state, and local partnerships and collaborative opportunities for the benefit of the LaSPACE community.
 - Measures:
 - Participate in National & Regional Space Grant Director's meetings; OSTEM Conferences; National and State EPSCoR meetings.
 - Maintain cooperative programming with the LA Board of Regents and the Louisiana Sea Grant Program (REA, LaSSO, GIRAF).
 - Review and Revise Funding Portfolio Procedures and Guidelines annually to be responsive to LaSPACE community needs, LSU/Louisiana policies, and NASA requirements.
 - Annually work with faculty and staff from ≥ 2 on funding or development opportunities external to LaSPACE programming.
 - Serve on local and national boards and committees in alignment with LaSPACE and National Space Grant goals and objectives.
- **Objective 1.3 (LAO1.3):** Document and report successes and challenges.
 - Measures:
 - Collect reports for all LaSPACE funded projects; collect participant data from all LaSPACE funded activities.
 - Produce mid-year and annual narrative reports to NASA; complete and submit annual longitudinal reporting to NASA; complete annual reporting in the NASA STEM Gateway system.

- Generate and maintain a Comprehensive Evaluation Plan via the services of an Independent Evaluator.
- Submit annual reports to LSU and LA BoR administration.
- Present successes and challenges to affiliate institutions at least annually.

LaSPACE Strategic Goal #2 (LASG2): Support NASA-aligned research, training, and development activities for students, staff, and faculty at Louisiana Colleges and Universities.

- **Objective 2.1 (LAO2.1):** Provide competitive seed-funding opportunities for faculty at LaSPACE Colleges and Universities conducting research projects clearly aligned with at least one NASA Mission Directorate.
 - Measures:
 - Fund ≥ 5 Research Enhancement Award (REA) projects annually; contingent upon annual cost-share commitment from the LA BoR.
- **Objective 2.2 (LAO2.2):** Provide competitive funding opportunities for students at LaSPACE affiliate campuses to perform faculty-mentored research clearly aligned with at least one NASA Mission Directorate.
 - Measures:
 - Fund ≥ 4 Graduate Student Research Assistance (GSRA) projects annually.
 - Co-fund with LA Sea Grant ≥ 1 Graduate Interjurisdictional Research Award Fellowship (GIRAF) annually.
 - Fund ≥ 5 LaSPACE Undergraduate Research Assistantship (LURA) awards annually.
 - Co-fund with LA Sea Grant ≥ 2 Louisiana Space & Sea grant Opportunities (LaSSO) undergraduate research awards annually.
 - Fund ≥ 2 Summer Internships at NASA Centers or Louisiana Campuses (NASA & LOCII).
- **Objective 2.3 (LAO2.3):** Develop and fund NASA-aligned hands-on, mentored experiential programs for higher education students in Louisiana.
 - Measures:
 - Fund ≥ 5 mentored student teams at LaSPACE Campuses to participate in our scientific ballooning program, Louisiana Aerospace Catalyst Experiences for Students (LaACES) awards annually.
 - Coordinate and implement project design reviews, payload flight readiness testing, and an annual flight trip for all LaACES teams.
 - Fund ≥ 1 three-person team (1 Faculty + 2 Students) to participate in the annual NASA Wallops RockOn! Summer workshop.
 - Fund ≥ 5 mentored student teams at LaSPACE Campuses participating in official Senior Design projects aligned with a NASA MD.
 - Fund ≥ 1 Advanced Student Flight Project annually, such as RockSAT-C or HASP.

LaSPACE Strategic Goal #3 (LASG3): Generate and curate professional development materials and opportunities to prepare higher education students in Louisiana to become productive members of the STEM workforce.

- **Objective 3.1 (LAO3.1):** Provide training and funding opportunities for students at LaSPACE Colleges and Universities to develop non-technical critical skills necessary for participating in the STEM workforce.
 - Measures:
 - Fund ≥ 15 students from LaSPACE campuses annually to participate in the Guided Pathways in STEM program.

- Share additional opportunities from the STEM Ecosystem with students subscribed to our email listserv.
- **Objective 3.2 (LAO3.2):** Provide free and funded professional development opportunities for students to showcase their work.
 - Measures:
 - Invite ≥ 4 LaSPACE funded students to present their work at the annual meeting.
 - Host a session during each annual meeting with ≥ 20 student poster presentations.
 - Participate/facilitate ≥ 1 Local, Regional, or National Workshop, Conference, or PD Event annually.
 - Facilitate ≥ 1 virtual presentation(s) open to all LaSPACE students featuring a guest speaker from NASA or Space Science Industry.

LaSPACE Strategic Goal #4 (LASG4): Strengthen and broaden participation in the Louisiana STEM Ecosystem through engagement with partners from a variety of communities.

- **Objective 4.1 (LAO4.1):** Increase engagement in LaSPACE activities with all populations in STEM.
 - Measures:
 - Increase proposal submission rate from under participating affiliate campus PIs by 20% over 4 years as compared to the previous multiyear funding cycle.
 - Provide informational talks about LaSPACE and other NASA opportunities to ≥ 2 LA campus student organizations which primarily serve populations in STEM majors.
- **Objective 4.2 (LAO4.2):** Contribute to public scientific literacy in Louisiana by participating in and/or supporting classroom, camp, and general public STEM activities around the state.
 - Measures:
 - LaSPACE MARS Truck Participation in ≥ 2 K-12 School or Camp-based STEM Events
 - LaSPACE MARS Truck Participation in ≥ 1 Public STEM Event(s)
 - LaSPACE Personnel participate in ≥ 2 College/University STEM Events
 - Facilitate ≥ 1 informal STEM engagement activity through network connections and/or financial support.
 - Collaborate on a new activity or event with ≥ 1 Informal Education Affiliate of LaSPACE.
- **Objective 4.3 (LAO4.3):** Support professional development opportunities for K-12 STEM classroom teachers in Louisiana.
 - Measures:
 - Fund ≥ 3 Louisiana middle school STEM teachers to participate in the annual TX LiftOff workshop, led by UT Austin in collaboration with NASA JSC.
 - Compile and disseminate NASA generated curriculum materials and supplies for K-12 STEM teachers and informal educators.
 - Investigate at least one new teacher development opportunity for Louisiana teachers annually.