



Louisiana Space Grant Consortium (LaSPACE)

Launching Louisiana Community College Students into STEM (LLCCSS)

LLCCSS Project Summary

Launching Louisiana Community College Students into STEM (LLCCSS)

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The LLCCSS project is a two-year pilot program to integrate members of the Louisiana Community and Technical Colleges System (LCTCS) into the Louisiana Space Grant Consortium (LaSPACE) in order to support the STEM infrastructure goals of the local community college system, the State of Louisiana, and the nation at-large by establishing a student ballooning program at community colleges in the state.

The goal of the LLCCSS project is to **increase the number of LCTCS schools, faculty, and students involved in the NASA Space Grant program using an established student ballooning program consistent with Louisiana workforce development needs while broadening student awareness of NASA related STEM careers.**



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To accomplish our overall goal we anticipate achieving the following objectives:

- Establish an interdisciplinary course at two community colleges that provides practical STEM experiences, integrated across multiple fields of study, using a NASA aerospace theme.
- Partner experienced LaSPACE affiliates with the community colleges to provide faculty training & development, mentorship, and general support over the academic year.
- Recruit a diverse group of student participants and provide each student participant with a significant level of support.
- Expose students to NASA supported scientists and engineers to broaden their awareness of NASA related STEM careers.
- Make use of established 2-year to 4-year institution partnerships, such as the LSU Tiger Bridge program, to facilitate student recruitment.
- Evaluate the success of LLCCSS and incorporate “lessons learned” to promote sustainability and expansion to other LCTCS schools.



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The LLCCSS pilot project is modeled on the already well-established Louisiana Aerospace Catalysts Experiences for Students (LaACES) student ballooning program, developed by LaSPACE over a decade ago and executed in partnership with the NASA Balloon Program Office (BPO) at Wallops and the NASA Columbia Scientific Balloon Facility (CSBF).

LaACES website: <http://laspace.lsu.edu/aces/>

LaACES has been the model for student ballooning programs developed by other Space Grant consortia in the U.S. as well as for programs of a national scope that focus on minority institutions, high school teacher training, and advanced student payloads. The LLCCSS pilot project will modify and expand this program onto community college campuses.



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Two mentor institutions, Louisiana State University (LSU) and University of New Orleans (UNO) will partner with a local community college, LSU with Baton Rouge Community College (BRCC) and UNO with Delgado Community College (DCC).

The project will be managed by T. Gregory Guzik, LSU Professor of Physics and the Director-Elect of the Louisiana Space Grant Consortium. Dr. Guzik is a founder of the LaACES ballooning program, is the faculty advisor for the LSU LaACES program, and manages LaACES participation at our affiliate colleges across the state.

Outcomes of LLCCSS will be the creation of a model for establishing similar partnerships between additional schools in Louisiana, increasing the number of community college affiliates in LaSPACE, and training community college students for a STEM career.



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Major Milestones Accomplished

- April 2014 – Baton Rouge Community College (BRCC) & Delgado Community College (DCC) officially become LaSPACE affiliates.
- May/June 2014 – LaACES flash drive packets (all lectures, exercises, manuals, lab requirements, etc) distributed to institutional reps at each CC campus.
- July 2014 – One-day crash course LaACES workshop for CC campus reps at LSU
- August 2014 – Award Letter – Yay!!!
- August 2014 – Advanced LaACES undergraduate students recruited at LSU and UNO to serve as mentors/assistant instructors on their own campus and affiliated CC campus.
- August 2014 – LaACES-modeled course begun on BRCC campus
- September 2014 – LaACES-modeled course begun on BRCC campus
- Ongoing: Biweekly conference calls for all 4 participants. Planning for Fall 2014 “field trips”

Major Obstacles

- Funding is not in place, the academic year has begun, and our community college campuses have no access to discretionary/temporary funding for lab equipment or student stipends.