



- The Timbuktu Academy was established in 1990 to mentor undergraduate physics majors.
- It is named after the former University of Timbuktu (14th-16th centuries), a bastion of scholarship in the second millennium, in the city of Timbuktu, on the banks of the majestic Niger River, in Mali, West Africa. SUBR is on the banks of the mighty Mississippi!
- Pursuant to funding by the Department of the Navy, Office of Naval Research (ONR), 1993-2010, the Academy moved from a demonstration stage to national-model status; included pre-college programs; and recruited majors in other SME fields, with emphasis on engineering and chemistry. The Academy is also funded by the Louisiana Space Consortium (LaSPACE), the ExxonMobil Foundation, and the Siemens Foundation. We acknowledge past funding, from 1990 to 2007, from the National Science Foundation (NSF), Louisiana Board of Regents, Hewlett Packard Foundation, and NASA.



J. Abiade (far Left) and A. Stewart (far right), Undergraduate Scholars, talking to high school students in New Orleans, LA.

HIGH SCHOOL GRADUATES AND COLLEGE STUDENTS

SUMMER BRIDGE INSTITUTE

SBI is an early college enrollment program for high achieving, high school graduates who pledge to major in one of the disciplinary areas covered by SEM-Timbuktu Academy (i.e. engineering, physics, chemistry, computer science, and mathematics). The enrollment of SBI, per summer, is twenty (20) scholars. A high school GPA of 3.0 or above and a minimum of 24 for the ACT and/or 1090 for the SAT are required.

UNDERGRADUATE RESEARCH PROGRAM

URP is a support, mentoring, and research participation program for high achieving undergraduate students majoring in physics, engineering, chemistry, computer science, and mathematics. A college GPA of 3.0 or above, participation in research (academic year and summer), and GRE preparation are some essential conditions for continued support from one year to another. Fifty (50) ONR-supported scholars are involved in this subprogram in a given academic year.

SUMMARY OF SOME RESULTS OF THE ACADEMY

The Timbuktu Academy played a pivotal role in the production of competitively trained BS degree holders. The web site of the Academy provides a detailed listing of individual alumni, their majors, and their graduate schools or high technology employment. Since its inception, the Timbuktu Academy has guided to graduation some 297 minority undergraduate science, technology, engineering and mathematics (STEM) majors. *Through our guidance, more than three hundred fifty (350) minority undergraduate scholars have earned a Bachelor of Science degree from SUBR. 76% of 96 physics graduates, 70% of 54 chemistry graduates, 31% of 81 engineering graduates have earned graduate degrees or are successfully enrolled in graduate school, with emphasis on the pursuit of the Ph.D.* Two of the graduates, Dr. Anthony Pullen (SUBR Spring 2004 Student Grand Marshal) and Dr. Cacey Stevens Bester (SUBR Spring 2008 Student Grand Marshal), received NSF Graduate Research Fellowships. The same full-time dedication to scholarly pursuit explains the reasons *14 Timbuktu Academy and LS-LAMP scholars were Student Grand Marshals (top of the graduation class) of SUBR between 1992 and 2017.*

Before the Academy, the graduate school attendance rate of Engineering majors was estimated at 10%. The Engineering scholars of the Academy have attended and succeeded in graduate school at a rate 4.5 times higher than 10%.

The Timbuktu Academy won the 2002 US-Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. Its director received the individual U.S. Presidential Award for Excellence in 1996. The Academy and its Director received the 2007 Benjamin Banneker Legacy Award. In 2009, its director was one of four recipients of the Distinguished Faculty Award from the Thurgood Marshall College Fund. In 2010, its Director received the 2009 Mentor Award for Lifetime Achievement from the American Association for the Advancement of Science (AAAS). Dr. Bagayoko recently won the 2017 science, technology, engineering, and mathematics (STEM) Innovation Award at the Becoming Everything You Are (BEYA) STEM Global Competitiveness Conference in Washington, D.C.



Ms. Janet Reed and Precollege Scholars (7-9 PM Study Hall)

EDUCATIONAL OUTREACH (K-16 AND BEYOND)

EDUCATIONAL SERVICES PROGRAM

ESP is an extensive outreach program that entails the production of new knowledge, publications, and presentations (at conferences, schools, laboratories, etc.). These outreach services also include ACT/SAT preparation workshops; career awareness in science, technology, engineering and mathematics (STEM) disciplines; and Saturday Academies also called Learning Olympiads.

<http://www.phys.subr.edu/timbuktu.htm>

(Applications are available at this site.)



CONTACT INFORMATION

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Southern University and A&M College in Baton Rouge (SUBR)

TIMBUKTU ACADEMY

Recipient of the 2002 US Presidential Award for Excellence

*PREVIOUS AND ✓CURRENT PROGRAM COMPONENTS

*Getting Smarter at the Timbuktu Academy (GeSTA)

The goals of GeSTA consist of increasing, in both quantitative and qualitative terms, the preparation of very young students for the pursuit of careers in science, engineering, and mathematics (SEM) fields. Developmentally sound, engaging, and intellectually stimulating activities characterize GeSTA. The program enrolls 10 to 20 elementary school students in this four (4) week, non-residential, academic, summer enrichment program on the campus of Southern University and A & M College – Baton Rouge (SUBR). *(The application form is available at the web site given below.)*

*Summer Science Institute – Middle School Component (SSI-M)

The goals of SSI-M consist of increasing, in both quantitative and qualitative terms, the preparation of students for the pursuit of careers in science, engineering, and mathematics (SEM) fields, including energy and environmental disciplines. The program enrolls two groups of thirty (30) middle school students in a four (4) week, non-residential, academic, summer enrichment program on the campus of Southern University and A & M College – Baton Rouge (SUBR). *(The application form is available at the web site given below.)*

*Summer Enrichment at the Timbuktu Academy (SETA)

The goals of SETA are similar to those of SSI-M. However, SETA addresses the preparation of 9th grade students for the pursuit of careers in the science, technology, engineering, and mathematics (STEM) fields by bridging the transition from middle school to high school. The program enrolls twenty (20) ninth grade students in a six- (6) week, non-residential, science, mathematics (algebra and geometry), and English enrichment program on the campus of Southern University and A & M College – Baton Rouge (SUBR). *(The application form is available at the web site given below.)*

*Summer Science Institute (SSI)

The Summer Science Institute (SSI) is a six-week, residential, intensive, academic enrichment program for twenty (20) rising pre-college seniors that emphasizes science, mathematics, and English. The overall goal of the program is to increase the pool of qualified, well-trained minority and non-minority scientists and engineers. The program encourages participants to take college preparatory courses in science, mathematics, and English. Participants prepare college portfolios they use during their senior years in high school. *(The application form is available at the web site given below.)*

*Challenge 2000 at the Timbuktu Academy (Challenge)

Challenge 2000 is a six- (6) week residential, pre-college, academic enrichment program similar in every respect to SSI, except that the participants are from diverse grade levels (10th – 12th grades) and have diverse levels of academic preparedness. This design simulates the reality in some high school classes. Implemented in the summer of 1997, Challenge 2000 enrolls twenty (20) students per summer. *(The application form is available at the web site given below.)*

✓Summer Bridge Institute (SBI)

SBI is an early college enrollment program for high achieving high school graduates who pledge to major in one of the disciplinary areas covered by the Timbuktu Academy (i.e., physics, mathematics, chemistry, computer science, biology, & engineering). The enrollment of SBI, per summer, is twenty (20) scholars. *(The application form is available at the web site given below.)*

✓Undergraduate Research Program (URP) and GREAT

URP is a systemic mentoring program, including research participation, for high achieving undergraduate students majoring in physics, mathematics, chemistry, biology, computer science, and engineering. A college GPA of 3.0 or above, participation in research (academic year and summer), and GRE preparation are some essential conditions for continuing support from one year to another. The Louisiana Board of Regents funded the Graduate Research Excellence at the Timbuktu Academy (GREAT) program.

✓Educational Services Program (ESP)

ESP is an extensive outreach program that entails the production of new knowledge, publications, and presentations (at conferences, schools, laboratories, etc.). These outreach services also include ACT/SAT preparation workshops; career awareness in science, engineering, and mathematics disciplines; and *Saturday Academies also called Learning Olympiads.*

*"Luck is what happens when preparation meets or makes, recognizes, and acts on opportunity"
The Timbuktu Academy enjoys the substantive support of The Honorable Mary Landrieu, US Senator, and of her staff.*

The Timbuktu Academy and its Director received the 2007 Benjamin Banneker Legacy Award – Presented by Dr. William (Bill) Cosby.

The Academy Director received the 2009 Thurgood Marshall College Fund's Distinguished Faculty Award