



SUMMER 2025 Mathematics Boot Camp at the Timbuktu Academy (SMBC-TA)

Department of Mathematics and Physics
Southern University and A&M College
Baton Rouge, LA 70813

The Summer 2025 Mathematics Boot Camp (SMBC-TA) will be held on the campus of Southern University and A&M College, in Baton Rouge (SUBR), June 2-27, 2025, for students entering grades 9th – 12th in the fall of 2025. This 4-week program entails a myriad of enriched activities designed to cultivate participant awareness and understanding of Quantum Mechanics & Computing for real-world applications. Selected students will focus on math and science competencies essential for college matriculation in Quantum Information Sciences & Engineering (QISE) fields. Based on our previous experiences, the six (6) core math and science competencies that will be addressed are (1) algebraic and geometric reasoning, (2) calculus, probability, and statistics, (3) problem-solving and critical thinking, (4) experimental design and data interpretation, (5) scientific communication and technology integration, and (6) interdisciplinary connections. Participants will engage in experiential quantum computing research and attend a lecture series of guest speakers, featuring innovative topics in science, technology, engineering, and mathematics (STEM) and particularly, quantum computing to prepare them for lucrative careers in the STEM workforce.

Selection Criteria:

- Entering 9th – 12th grade in Fall 2025
- Possess at least a minimum 2.5/4.0 Grade Point Average (GPA)
- Acceptable conduct/disciplinary record
- Intention to pursue an undergraduate degree in a STEM field, particularly Mathematics and/or Physics

For Consideration, applicants are required to submit the following:

- **Completed application;** contact Dr. Anthony Stewart at anthony.stewart@sus.edu
- **High school transcript**
- **Conduct/disciplinary record**
- **Resume'** (list school activities in which you have participated, i.e., clubs and organizations, awards, volunteerism, etc.)
- **Two (2) recommendation forms** (completed by a mathematics teacher and an official familiar with your distinct academic potential, personal attributes, etc.)
- **Personal Statement;** (1-page essay describing your interests in science and mathematics, previous science experiences [science fairs/rallies, summer research, summer enrichment, etc.], and career goals)
- **Photo & Medical Consent Form** (signature required by student and parent/guardian)

Program Name: Summer Mathematics Boot Camp at the Timbuktu Academy (SMBC-TA)

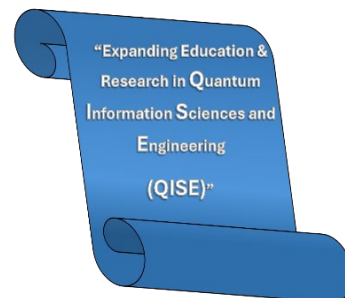
Dates/Times: June 2-27, 2025, from 9:00 AM to 3:00 PM (Student pick-up by 3:30 PM)

Location: Fisher Hall, SUBR campus

Application Deadline: **May 2, 2025**

Project Director/Coordinator: Dr. Anthony Stewart, IBM-HBCU Quantum Center Fellow & Associate Professor of Physics, Department of Mathematics and Physics and Director, the Timbuktu Academy, SUBR, anthony.stewart@sus.edu

Co-Investigator of the Timbuktu Academy: Dr. Diola Bagayoko, Southern University System (SUS) Distinguished Professor Emeritus of Physics and Director Emeritus of the Timbuktu Academy, SUBR, bagayoko@aol.com



SMBC-TA Application available upon request. Send inquiries to:

smbc.ta2025@gmail.com



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APPLICATION

Name: _____ **Date of Birth:** _____
(FIRST) (MIDDLE) (LAST)

Address (City, State, Zip): _____ **Male** [] **Female** []

Name of School: _____ **Current Grade:** _____ **Cumulative GPA:** _____

Phone Number: _____ **Email Address:** _____

Ethnic Background (FOR STATISTICAL PURPOSES ONLY; THIS IS NOT A FACTOR IN THE SELECTION PROCESS)

- African American/Black
- Asian American
- Hispanic American
- Native American
- White American/Caucasian
- Other _____

US Citizen/Permanent Resident: YES [] NO []

Intended College Major _____
(i.e., physics, engineering, chemistry, mathematics, computer science, biology, agriculture, etc.)

Parents/Guardians' Name _____

Phone Number: _____ **Email Address:** _____

Highest Grade Completed by Mother _____ **Father** _____

List below the name, title/affiliation, and office phone number of two (2) individuals you have asked to provide a recommendation. NOTE: INDIVIDUALS MUST BE HIGH SCHOOL SCIENCE, ENGLISH, AND MATHEMATICS INSTRUCTORS OR COUNSELORS.

Name	Title	Telephone
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Name	Title	Telephone
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Student's Signature _____

Signature of Parent or Guardian _____

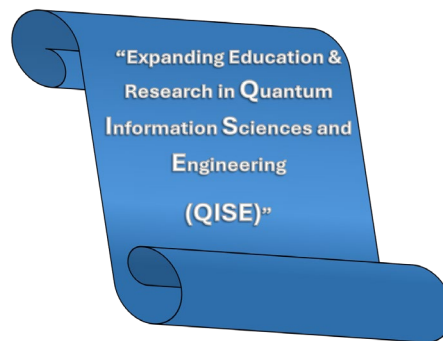
Required Attachments:

1. **High school transcript**
2. **Conduct/disciplinary record**
3. **Resume** (list school activities in which you have participated, i.e., clubs and organizations, awards, volunteerism, etc.)
4. **Two (2) Recommendation Forms** (completed by a mathematics teacher and an official familiar with your distinct academic potential, personal attributes, etc.)
5. **Personal Statement** (1-page essay describing your interests in science and mathematics, previous science experiences [science fairs/rallies, summer research, summer enrichment, etc.], and career goals)
6. **Signed Photo and Medical Consent Form** (signature required by student and parent/guardian)

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED!!

*****APPLICATION DEADLINE: May 2, 2025*****

Send questions/concerns to smbc.ta2025@gmail.com or to Dr. Anthony Stewart, SMBC-TA Project Director, anthony.stewart@sus.edu





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PHOTO & MEDICAL CONSENT FORM

Name: _____ Date of Birth: _____
 (FIRST) (MIDDLE) (LAST)

Address (City, State, Zip): _____ Male [] Female []

Phone Number: _____ Email Address: _____

Parents or Guardians' Name _____

Phone Number: _____ Email Address: _____

PHOTO CONSENT – I authorize the IBM-HBCU Quantum Center Summer Mathematics Boot Camp, at Southern University and A&M College, to capture interactive photos of my child throughout the during of the summer camp. Additionally, my signature below grants permission to utilize these photos, with the public & private stakeholders, for reporting and illustrative purposes:

Student's Signature _____

Signature of Parent or Guardian _____

MEDICAL CONSENT - In case of minor injury/accident or attendant need for medical treatment, I authorize the IBM-HBCU Quantum Center Summer Mathematics Boot Camp, at Southern University and A&M College, to transport my child to the SUBR Infirmary for minor care, prior to receipt of my child for follow-up medical care:

Student's Signature _____

Signature of Parent or Guardian _____