

SUMMER 2019

Miami | New York | San Francisco | Washington, DC

SCIENCE, TECHNOLOGY, ENGINEERING AND MATH
STEM education that combines rigorous academic coursework with practical, real-world experiences that spark learning.



WHY IS STEM IMPORTANT?

Gaining skills and knowledge in the STEM disciplines is essential for student success, both academically and professionally. The Labor Department projects that by 2018, nine of the ten fastest-growing occupations that require a college degree will require significant scientific or mathematical training.

WOMEN AND MINORITIES IN STEM

Reports suggest that stereotypes and lack of support of girls and minorities negatively affect their performance in the STEM fields.

A ROLE FOR THE COLUMBIA GIRLS IN STEM INITIATIVE

As an Ivy-League university with more than 30 years of experience running high school programs globally, Columbia and its Girls in STEM Initiative are uniquely positioned to prepare underrepresented, high-achieving students in the STEM fields. The School of Professional Studies has strong relationships with leading companies and faculty that wish to support emerging talent and tackle society's human capital issues.

THE OBJECTIVE

The Columbia Girls in STEM Initiative prepares motivated high school students from typically underrepresented populations for STEM studies in college, in collaboration with industry leaders throughout the country.

THE PROGRAM

Taught by Columbia University faculty, the program provides participants with a one-week, integrated learning experience that focuses on three strategic approaches:

1. **INTRODUCE** female STEM role models and leadership
2. **BUILD** a bridge between K-12 and college
3. **CONNECT** the STEM classroom to the real world



**BOYS & GIRLS CLUBS
OF AMERICA**

This program is open to qualified, rising high school junior and senior girls and boys that are identified through the following Boys & Girls Clubs of America Partners:

SAN FRANCISCO, CA
Boys & Girls Club
of San Francisco
Hosted by Microsoft

MIAMI, FL
Boys & Girls Club
of Miami Dade
Hosted by the Miami Dolphins

WASHINGTON, D.C.
The Boys & Girls Club
of Greater Washington
*Hosted by National
Geographic*
ColumbiaGirlsInStem@bgcgw.org

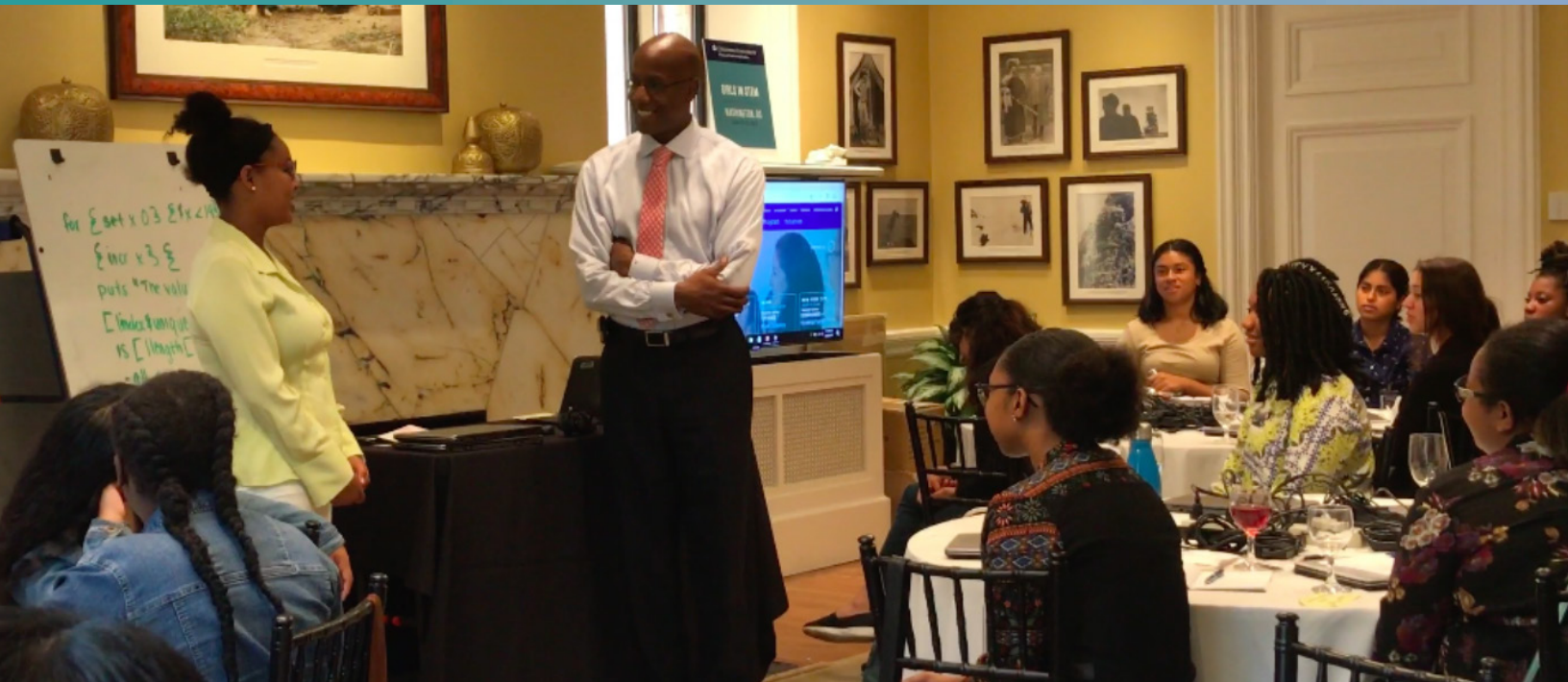
NEW YORK, NY
Madison Square
Boys & Girls Club
Hosted by Goldman Sachs

PROGRAM SCHEDULE

Advisory Activity	9:00–10:00
Academic Course	10:00–12:00
Lunch	12:00–1:00
Leadership Program	1:00–2:00
Academic Course	2:00–4:00
College Readiness	4:00–5:00

PROGRAM DATES

San Francisco	June 10–14
Washington, DC	July 29–August 2
Miami	July 15–19 (TBC)
New York City	August 12–16 (TBC)



STUDENT CRITERIA

Academic Criteria

- Student has successfully completed a math course (Algebra I, Geometry, etc.) and received a grade of a B and above.
- Student has successfully completed a science course (Physics, Chemistry, Biology, etc.) and received a grade of B and above.
- Though there are no set minimum requirements such as a particular GPA, the application materials should establish that the student has the necessary academic background and level of ability, motivation, and maturity necessary for the curricular option for which he or she is applying.

General Criteria

- This program is open to qualified, rising high school junior and senior girls and boys.
- Student demonstrates necessary motivation to participate in a rigorous academic experience.
- Student has emotional maturity to fully participate in a week-long, pre-college immersion experience.
- The student should be able to complete this week long program in its entirety. No exceptions permitted.

PROGRAM COMPONENTS:

Academic Course – Students will create their own website or app using the Python computer language. Key learning objectives include data visualization, data manipulation, data analysis and data collection.

College Readiness – Facilitators review the college application process, sharing guidance and best practices for preparing a competitive application. Students will also strengthen their application essays in a college essay writing workshop.

Advisory Activity – Students will participate in group conversations aimed at leadership development and college preparation.

Leadership Speaker Series – Various speakers from STEM fields will share their experiences and advice on the preparation needed to succeed in STEM careers. Past speakers have included CTO of Johnson & Johnson.