

**Manhattanville in West Harlem Implementation Plan Report
October 15, 2025 Submission**

Declaration Reference and Key Data

Obligation Section Number: **5.07(c)(ix)**

Obligation Title: **Availability of Faculty**

Obligation Page Number: **54**

Obligation Trigger: **When Upper Level Students Matriculate**

Obligation Start Date: **Beginning of 2012-2013 Academic Year**

Obligation End Date: **End of 2036-2037 Academic Year (25 Years from Commencement)**

Obligation Status: **In Compliance**

Obligation: Innovation/Changed Conditions

In accordance with the Declaration of Covenants and Restrictions Section 5.08, Obligation 5.07 (c)(ix) is modified to clarify the obligation. In general, the scope of services to be provided has not been changed. Additionally, the obligation in Section 5.07(c)(viii) New Public Middle and High School for Math, Science and Engineering that focuses on curriculum support from Columbia Faculty has been moved to this obligation for clarity of faculty engagement. Empire State Development and Columbia University agreed to this modification on November 28, 2018.

Modified Language:

Availability of Faculty. Columbia shall provide curriculum support to the faculty of Columbia Secondary School created in accordance with Section 5.07(c)(viii) to ensure the highest level of education in math, science and engineering, and continuing for a 25 year period from May 20, 2009. This portion of the commitment will end in 2034.

Commencing with the academic year in which the School matriculates upper level students eligible for competing in regional and national math, science and engineering competitions, CU shall endeavor in good faith to make its faculty from existing campuses available to upper level students from the School interested in competing in regional and national math, science and engineering competitions. As the Project Site is developed, CU shall endeavor in good faith to make its faculty from the Project Site available to upper level students at the School interested in competing in regional and national math, science and engineering competitions. Columbia shall provide curriculum support to the faculty of the new school to ensure the highest level of education in math, science and engineering, and continuing for a 25 year period from commencement.

Innovation; Changed Conditions

Commencing with the academic year in which the School matriculates upper-level students, CU shall endeavor in good faith to make its faculty available to CSSMSE students and faculty to support the school's academic and programmatic needs as described by Columbia Secondary School leadership to Columbia University leadership and that can be met by Columbia faculty working directly with CSSMSE. This support is primarily driven by the articulation by Columbia Secondary School of specific needs that can be met by Columbia faculty.

Columbia shall provide curriculum support to the faculty of the new school to ensure the highest level of education in math, science and engineering, as specifically requested by the school, and continuing for a 25-year period from commencement.

Evidence of Compliance

1. Annual report

Columbia University's Implementation Plan and all supporting documentation are made available on the Columbia Neighbors Webpage at <https://neighbors.columbia.edu/content/community-commitments>.

COLUMBIA SECONDARY SCHOOL

for Math, Science, & Engineering

425 West 123rd Street, New York, NY 10027



A Public School, Community, and University Partnership

Challenging Academics – A Passion for Reason and Knowledge – Strength in Diversity

Memorandum


To: Angela Olinto, Provost
From: Vikram Arora, Principal
Re: Columbia University/Columbia Secondary School Staff and Student Interactions
Updated: September 22, 2025

Columbia Secondary School for Math, Science, and Engineering (CSSMSE) opened in 2007 and has been providing the community with an excellent public secondary school (grades 6–12) option for over a decade. Based on feedback about the school’s needs and priorities from my staff and our leadership team, the University has continuously supported CSSMSE and its students through access to the expertise of Columbia’s faculty and to campus facilities.

This report describes the projects and programs through which CSSMSE accessed Columbia’s faculty and campus resources from September 1, 2024 through August 31, 2025. As is noted in the report, most are ongoing. While Columbia’s obligations under the *Availability of Faculty* and *Availability of Facilities* sections of the Declaration began in 2012, CSSMSE’s interactions with Columbia’s faculty began as early as 2007.

In addition to the other projects and programs noted in this report, CSSMSE upper-level students access Columbia University’s libraries, computing facilities, and other academic support facilities and services while taking both for-credit and pre-college courses at the University. These programs are administered by Columbia’s School of Professional Studies and described in more detail in this report. CSSMSE students who are enrolled in classes at Columbia have the support and guidance of their instructors and classmates and have demonstrated the maturity and responsibility needed to successfully navigate a university campus.

In addition to the campus experience and access enjoyed by students who are taking courses, these and other students also visit the campus under the supervision of CSSMSE teachers in collaboration with Columbia’s administrative staff and academic faculty for a variety of other projects and programs, as also described herein.


10/1/2025

Vikram Arora / Principal

with a final symposium in which students present their work to an audience of peers, mentors, and the broader NYC astronomy community. Students are paid a stipend for their participation in the program.

STAR is supported by the Pinkerton Foundation and the Columbia Astronomy Department. STAR is also a part of the New York Science Research Mentoring Consortium (NYCSR). The program has been highlighted by Columbia Neighbors; the news article can be found [here](#).

Outreach to students:

STAR directors made several in-person visits to CSSMSE in May 2024 to advertise the program. During the first few visits, directors visited science classrooms throughout the day to give a short presentation describing STAR and answer questions from students. Later in May, directors also held two application workshops at CSSMSE, where students could drop by and ask questions about the program or application process. These events were advertised to the CSSMSE community through a school-wide email sent by the CSSMSE liaison.

The first year of the program concluded in May 2025 with a final symposium, which all CSSMSE students were invited to attend via a school-wide email. In May and June 2025, directors also made in-person visits to CSSMSE to advertise the second year of the program in the same manner as before.

Process by which students access benefit:

Students submit applications to join each STAR cohort. STAR directors then review applications and conduct short interviews with each applicant before selecting students to participate in the program.

Time period:

Academic Year 2024 - 2025

School, department, or unit:

n/a

University faculty, instructor, or staff member:

████████████████████

CSSMSE students or staff member:

████████████████████

Project/purpose:

Grant funding through Columbia's Institute for Religion, Culture and Public Life (IRCPL) and WEAI ([Weatherhead East Asian Institute](#)) allowed program managers to introduce education and understanding about a region of the world that largely remains underexplored in many American high schools, particularly STEM-focused schools such as CSSMSE. Some examples of what the new programming offered include: a Meet and Greet event at the start of the academic year to facilitate networking opportunities for students, faculty, staff, CSS teachers, and representative students; a Pairing Mentorship program which allowed 9th and 10th graders to be paired with graduate students who provided assistance not only with research papers but also professional insights into relevant fields, and who made presentations to the classes in their areas of expertise; a field trip to Butler library for 7th and for 11th graders which allowed students to learn about the history of local activism through primary source material, and to learn more about research and teaching at the university level, and to tour the campus. A professional day for teachers at CSSMSE on Teaching Difficult Subjects was held at WEAI and featured presentations by faculty and graduate students on the Vietnam War, Tibet-China relations, and Japanese militarism in Asia World War II. There was a discussion with teachers and faculty after a film screening of the award winning

film Three Seasons with the film's director, and presentations by faculty who work in those selected areas. Lastly, book prizes were given to students from CSSMSE selected for the Weatherhead East/Southeast Asian History Prize, as well as the Weatherhead Research Prize to honor students who did not study Asia, but excelled on the research element.

Outreach to students:

To graduate students at Columbia as well as to CSSMSE students through their teachers.

Process by which students access benefit:

CSSMSE faculty members facilitated students' participation as part of the ongoing collaboration with CU faculty and graduate students. Collaboration between CU and CSSMSE faculty has facilitated enhancements to the CSSMSE curriculum, affecting all students at the school. The CU graduate students who worked at CSSMSE benefited by gaining experience working with high school teachers and students, which expands their job opportunities.

Time period:

2024 - 2025

School, Department, or Unit:

School of Professional Studies (SPS)

University faculty, instructor, or staff member:

██████████

CSSMSE students or staff member:

of Students: 40 over 2.5 years; CSS Faculty: ██████████

Project/Purpose:

Planting Stories: Seeds of Diaspora is a pilot project in New York City that explores the rich histories of plants within immigrant communities, focusing on their cultural and health-related significance. Led by Columbia University's School of Professional Studies, School of the Arts, Department of Latin American and Iberian Cultures, and Columbia Artist/Teachers, in partnership with the New York Botanical Garden's Humanities Institute and Columbia Secondary School, the project addresses the decline of foraging and gardening traditions among younger generations. Through workshops blending scientific and creative practices, it fosters cross-generational and cross-cultural learning about the connections between plants, food culture, health, immigration, and family histories. The initiative will develop educational materials for institutions citywide and assess the impact of plant-focused programming on community health.

Outreach to students:

Teacher promoted via her Green Team elective

Process by which students access benefit:

██████████ came to CSS one time per month with 4-6 students from Columbia Artists/Teachers, Oral History and the School of General Studies to provide programming

Time period:

January 2023 - June 2025

Outreach to students:

CSSMSE administration and faculty identify students prepared for college-level coursework and independence and work with them to choose classes that are of interest and support their learning. The program is well established at CSSMSE and discussions about college preparedness are a standard part of all CSSMSE students' experiences.

Process by which students access benefit:

CSSMSE administration and SPS staff finalize the list of students each term, and after their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSSMSE administrators about how to enroll. An in-person orientation is conducted for participating CSSMSE students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSSMSE students based on their courses). Once enrolled and oriented, CSSMSE students begin attending their classes alongside, and indistinguishable from, other students in the class.

Time period:

Fall 2024

School, department, or unit:

Vagelos College of Physicians & Surgeons; Office of Student Diversity; Inclusion & Belonging

University faculty, instructor, or staff member:

Varies: graduate students and university faculty support the program. In 2024–2025, 12 faculty members led workshops with our students.

CSSMSE students or staff members:

- Summer 2024: 2 students
- Fall 2024 & Spring 2025: 2 students
- Summer 2025: 2 students

Note: One student graduated this year and is now a POSSE Scholar at Lafayette College, majoring in civil engineering.

Project/purpose:

The State Pre-College Enrichment Program (S-PREP) is a free academic and college preparation program for 7th–12th grade students in New York City. Its mission is to increase the number of students pursuing careers in healthcare and STEM. The program offers Saturday academic enrichment courses, career development workshops, college advisement, and college tours.

Outreach to students:

Potential participants are identified through outreach conducted by CSSMSE faculty and administration.

Process by which students access benefit:

CSSMSE faculty facilitates students' participation in the program as part of ongoing collaboration with Columbia faculty. Students submit applications individually.

Time period:

Fall 2024, Spring 2025, Summer 2025

School, department, or unit:

Undergraduate Admissions and Financial Aid

University faculty, instructor, or staff member:

██████████, Director of Multicultural Recruitment

CSSMSE students or staff member:

15 Juniors and Seniors in Fall 2024, 50 students in Spring 2025. Approximately 120 students received communication regarding these programs; ██████████

Project/purpose:

In-person and virtual sessions about academic programs, campus life, financial aid, admission process, and answers to any questions the students may have, are available for CSSMSE families and students throughout the year. They may also participate in on-campus tours as well. This year, CU Undergraduate Admissions held a school visit at CSSMSE in the fall and attended the CSSMSE college fair in the Spring.

Outreach to students:

Students are invited to register for information sessions and on-campus tours through email notifications and print mailings from Undergraduate Admissions. Students and families are notified by CSSMSE staff via email, class announcements and letters home regarding CU's school visits to CSSMSE. CSSMSE counselors are encouraged to connect families with Undergraduate Admissions representatives. Reps visited in Fall 2024 and met with approximately 15 students, both juniors and seniors, and then participated in a college Fair that took place in Spring 2025, where the rep was able to meet with about 40-45 students and families from across all grades.

Process by which students access benefit:

Students attend scheduled college-oriented events

Time period:

Fall 2024 and Spring 2025

School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS)

University faculty, instructor, or staff member:

██████████

CSSMSE students or staff member:

5 high school students; ██████████

Project/purpose:

Girls Who Code (GWC) is a non-profit that works with young women to teach them about coding and how to navigate working in the tech sector. The local chapter of GWC meets in a SEAS computer lab on Saturdays for 7-8 sessions per semester.

School, department, or unit:

School of Professional Studies (SPS) - College Edge, Columbia College: Economics; Mathematics; Social Psychology; Statistics, Ecology/Evolution/Environment; German; History; Latin; Korean; Japanese

University faculty, instructor, or staff member:

[REDACTED]

CSSMSE students or staff member:

38 CSSMSE students in Spring 2025, 16 CSSMSE students in Summer 2025; [REDACTED]

Project/purpose:

In the spring and summer 2025 terms, 45 CSSMSE students took courses for college credit at Columbia university, including 18 CSSMSE students who were newly enrolled at Columbia. Students enroll through the School of Professional Studies and are provided with a student orientation and access to discounted textbooks at the Columbia University bookstore. Students have full access to Columbia instructors, including use of office hours if needed. Courses these semesters included The Science of Psychology, Calculus I and Elementary Latin I. CSSMSE students take the courses tuition-free.

Outreach to students:

CSSMSE administration and faculty identify students prepared for college-level coursework and independence and work with them to choose classes that are of interest and support their learning. The program is well established at CSSMSE and discussions about college preparedness are a standard part of all CSSMSE students' experience.

Process by which students access benefit:

CSSMSE administration and SPS staff finalize the list of students each term, and after their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSSMSE administrators about how to enroll. An in-person orientation is conducted for participating CSSMSE students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSSMSE students based on their courses). Once enrolled and oriented, CSSMSE students begin attending their classes alongside, and indistinguishable from, other students in the class.

Time period:

Spring and Summer 2025

School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS)

University faculty, instructor, or staff member:

[REDACTED]

CSSMSE students or staff member:

5 students; [REDACTED]

Project/purpose:

SHAPE, Columbia Engineering's Summer High School Academic Program for Engineers, is a pre-college program for rising sophomores, juniors, seniors, and recent high school graduates. SHAPE is geared toward students with a curiosity for STEM: science, technology, engineering, and mathematics. Each 3-week session offers college-level, project-based courses in engineering taught by a diverse group of faculty at Columbia University. Students engage with peers and Columbia University faculty, staff, students, alumni, and industry partners through interactive programming, site visits, and workshops. SHAPE has a program fee of \$5,880. With the support of [REDACTED], SHAPE awards 30% of all students full financial aid based on family income. One CSS student received full financial aid for the program.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSSMSE faculty and administration.

Process by which students access benefit:

CSSMSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.

Time period:

July and August 2025

School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS)

University faculty, instructor, or staff member:

[REDACTED]

CSSMSE students or staff member:

Two 12th-grade students; [REDACTED]

Project/purpose:

Engineering the Next Generation (ENG): Rising high school seniors match with engineering labs and research mentors and are supervised by faculty members. Program components include research, mentoring, college preparation, and presentation skills, as well as academic and professional workshops. Students are challenged with high-level academic expectations by both the researchers and undergraduate mentors. Participants must be at least 16 years of age in order to participate and are granted a stipend for their time in the program. ENG offers students an opportunity to learn about the ethics and best practices of research through examination of various case studies.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSSMSE faculty and administration. Columbia Engineering Outreach Programs team also holds info sessions at CSSMSE.

Process by which students access benefit:

CSSMSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. Students submit applications individually.

Time period:

July - August 2025

Outreach to students:

n/a

Process by which students access benefit:

n/a

Time period:

Ongoing

School, department, or unit:

n/a

University faculty, instructor, or staff member:

[REDACTED]

CSSMSE students or staff member:

All CSSMSE students who are enrolled in CU courses through SPS; [REDACTED]

Project/purpose:

The Columbia University Bookstore, in conjunction with the School of Professional Studies, has developed a streamlined process to facilitate CSSMSE's acquisition of textbooks for the CU courses for which they are registered. This partnership was developed specifically for CSSMSE students and is evaluated and improved each semester to ensure students have easy access to appropriate course materials.

Outreach to students:

CSSMSE administration and faculty identify students prepared for college-level coursework and independence and work with them to choose classes that are of interest and support their learning.

Process by which students access benefit:

Once CSSMSE students are enrolled in their chosen courses for the term, a list of their names and courses is sent by CSSMSE administration to the Columbia Bookstore. The Bookstore sets aside all materials needed for the courses (except in the infrequent instance of something not being available there), and at the time of their orientation, CSSMSE students visit the Bookstore, where they are shown the window at which they receive their books and told what to do in the case of a change in course or the need to pick up additional course materials. The Bookstore donates materials annually up to \$5,000, an amount that covers almost the entire cost of the students' books. Any expenses above \$5,000 are covered by the school. Students do not incur any expenses from the Bookstore for required course books. Students return all hardcover and non-consumable books after the completion of their CU semester.

Time period:

Ongoing

School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS)

University faculty, instructor, or staff member:

██████████, and 2 Columbia Engineering students

CSSMSE students or staff member:

35 students in 9th through 12th grades; ██████████

Project/purpose:

FIRST Robotics: Throughout the year, CSSMSE students prepare for and participate in the FIRST Robotics Competition, an annual national robotics competition for students in grades 9-12. The team meets on campus multiple times a week, working closely with peer team members, undergraduate mentors, and staff from the Mechanical Engineering Department, CSSMSE students build and program robots and compete at the local and regional level. Fu Foundation School of Engineering and Applied Science (SEAS) Outreach Programs hosts the FIRST competition kickoff event not only for CSSMSE but also including other local teams each January. This year, under the guidance of SEAS faculty and staff, CSSMSE launched its own team with 35 students from CSS participating with most of them returning from the previous year and 5 students from Columbia Engineering serving as mentors. The mentors were a mix of graduate and undergraduate students in computer science or mechanical engineering. The mentors provide technical advising as well as safety training because the team meets in the mechanical engineering teaching lab as well as the mechatronics lab where they learn about machinery and robot design. Students receive a CUID as well so they can come on campus easily.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSSMSE faculty and administration. Columbia Engineering Outreach Programs team also holds info sessions at CSSMSE.

Process by which students access benefit:

CSSMSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. Students submit applications individually.

Time period:

Ongoing