

AP STEM Access Program Overview

In December, Google, DonorsChoose.org, and the College Board will publicly announce the launch of the AP STEM Access program, an initiative created to increase the number of traditionally underrepresented minority and female high school students who participate in Advanced Placement® courses in STEM (science, technology, engineering and mathematics) disciplines. Google has given a \$5 million grant to DonorsChoose.org to enable public high schools across the country to start 500 new AP math and science courses and to encourage traditionally underrepresented students with strong academic potential to enroll and explore these areas of study and related careers.

The STEM Imperative

According to the U.S. Department of Commerce, the growth in STEM occupations was three times as fast as the growth in non-STEM occupations over the last 10 years. STEM occupations are expected to grow by 17 percent from 2008 to 2018, compared to 9.8 percent for non-STEM occupations. As a nation, we are not graduating nearly enough STEM majors to meet this need.

African American, American Indian/Alaska Native, Hispanic/Latino and female students in the United States are less likely than their counterparts to study math and science in college or pursue related careers. For example, although females were awarded 57 percent of the 1.7 million bachelor's degrees in 2009-10, they only received 17 percent of engineering degrees, 18 percent of computer science degrees, and 41 percent of science degrees according to the National Center for Education Statistics.

In part, this is because these high school students are not exposed to adequate advanced classes in the STEM disciplines. Research shows that students who took AP math and science were more likely than non-AP students to earn degrees in physical science, engineering and life science disciplines—fields leading to some of the careers essential for the future prosperity of the United States.

The funding from Google will help open the doors for more underrepresented minority and female students to access rigorous AP STEM course work in high school and lay the foundation for their future success in college and beyond.

AP STEM Access Program Goals

The goal of the AP STEM Access program is to start 500 new AP math and science courses in schools that have significant numbers of traditionally underrepresented minority and female students who are ready for the challenge of rigorous course work in STEM. National analyses show that among students with comparable levels of readiness for AP STEM course work, participation rates vary significantly across race and gender. For example, 6 in 10 Asian students with a 70 percent likelihood of succeeding on an AP mathematics exam participate in AP mathematics course work, compared to 4 in 10 white students, 3 in 10 African American and Hispanic/Latino students, and 2 in 10 American Indian/Alaska Native students; in most AP STEM subjects, female students participate at lower rates than male students. In many cases, schools serving large numbers of traditionally underrepresented minority students do not yet provide AP course work in STEM disciplines. The schools participating in this program will share the goal of working toward increasing the availability of and diversity in AP STEM classrooms overall so that these classes reflect the diversity of the school overall.

School Selection Criteria

To achieve the shared goal of increasing student participation in rigorous AP STEM course work and to focus the funding on schools with the most unmet student potential and need, Google and DonorsChoose.org worked with the College Board to develop the following data-driven criteria:

- They are **public high schools** in the United States.
- They have a significant number of traditionally underrepresented students who are academically prepared for rigorous course work in AP STEM as indicated by their scores on the 2011 PSAT/NMSQT[®] (Preliminary SAT/National Merit Scholarship Qualifying Test). Specifically, in the 2010-2011 academic year they had **10 or more traditionally underrepresented minority students¹ and/or 25 or more female students** with high potential to be successful in college-level AP STEM courses that were not offered at the high school that the students attend in the 2010-2011 academic year. For this criterion, high AP potential is defined as 70 percent or higher likelihood of scoring a 3, 4 or 5 on the AP Exam; and
- They **serve communities** with a median household income of \$100,000 or less and/or 40 percent or more students qualifying for free or reduced-price school meals.

The College Board used its data to determine which schools met the criteria, and will invite all qualifying schools to participate in the program.

School Funding and School Commitment

This grant from Google will provide each participating school with “start-up” funding for the classroom resources, educational materials, and teacher professional development typically needed to start one or more new AP math and science courses. In addition, all AP STEM teachers in participating schools (not just the new AP STEM teachers) that increase diversity in their classroom will receive a \$100 DonorsChoose.org gift card for each student who achieves a score of 3, 4, or 5 on an AP STEM Exam. The funds can be used by the teacher to further invest in classroom resources — with the goal of driving student engagement and achievement in years to come. A typical school will receive \$2,000-\$10,000 if they meet the criteria for all elements of the funding.

Schools that participate in the program will sign a Memorandum of Understanding committing to start one or more new AP mathematics or science course(s) and maintain these courses for a minimum of three years. This will enable the new STEM course(s) to become an integral part of the school’s overall AP course offerings. New AP STEM courses will need to have a minimum class size of 10 students. Schools will follow their usual enrollment policies, as well as use AP Potential™ data to identify underrepresented students with high AP potential and encourage them to enroll in AP STEM courses.

¹ black/African American, American Indian/Alaska Native, and Hispanic/Latino students

Timeline

December 4, 2012: Google, DonorsChoose.org, and the College Board publicly announce the qualifying schools for the AP STEM Access program, which focuses on public high schools that have many underrepresented minority or female students with high potential to be successful in AP STEM courses that are not currently offered.

December 13, 2012 and January 10, 15, 23, and March 15, 19, 20, 2013: Qualifying schools have the opportunity to participate in webinar presentations to learn more about the program and ask questions.

November 2012–March 2013: Qualifying schools will have the opportunity to sign up for the program.

March 28, 2013: Deadline for schools to sign up for the program. Participating schools will begin recruiting students, particularly underrepresented students with high potential to be successful in AP STEM courses.

March 28, 2013: Deadline for participating teachers to register for their paid professional development course at an [AP Summer Institute](#).

April and May 2013: Teachers participating in the program [register for and attend a DonorsChoose webinar](#) to learn how to use the site and redeem their gift codes.

April–August 2013: Teachers participating in the program request their classroom materials, including textbooks, lab equipment, calculators and other materials for student use, on [DonorsChoose.org](#) using DonorsChoose.org gift cards.

Fall 2013: Participating schools begin their new AP STEM courses.

May 2014: Students take AP Exams.

Summer 2014: All AP STEM teachers in the participating schools (not just the new AP STEM teachers), who increase diversity in their class, receive a DonorsChoose.org gift card for each student in the course who receives a 3, 4, or 5 on the AP Exam.

For more information, please visit collegeboard.org/apstem.

