

Pathways in Technology Early College High School (P-TECH)

In September 2011, the New York City Department of Education, The City University of New York (CUNY), New York City College of Technology (“City Tech”) and the IBM Corporation opened Pathways in Technology Early College High School (P-TECH) – an innovative public school spanning grades 9-14. P-TECH’s mission is to provide students with a personalized pathway towards mastery of the skills and knowledge that they will need to make the transition from education to industry. P-TECH students will graduate with a no-cost associate degree, and will be positioned to secure entry-level positions in the highly competitive Information Technology field(s) and/or complete their studies in a four-year higher education institution.

P-TECH opened in Brooklyn, New York with 104 students in the ninth grade, and will add a grade each year for six years. Students come from all boroughs of the city, but predominantly from the surrounding neighborhoods. They were not screened for admission, and no tests were required. However, students did have to demonstrate their interest in P-TECH by attending a school fair or a parent meeting. P-TECH is 67 percent male and 33 percent female, and many of the students will be the first in their families to earn a postsecondary degree.

P-TECH was never planned as a single or charter school serving a small number of fortunate students. The broader goal always has been to apply the knowledge and experiences developed in this pilot school to serve as a model for use by other traditional high schools in New York City, nationally and globally. P-TECH is designed to be the first in a series of similar institutions, and an exemplar of how K-12 schools, higher education institutions and public/private partnerships can substantially raise graduation rates, prepare greater numbers of students to fill good paying jobs in the IT or other fields, and enable more students to successfully pursue postsecondary education.

Components of the P-TECH Program

P-TECH provides students with a school-college-career continuum that helps them understand the direct links between what they are learning today and the worlds of college and work. The school’s rigorous program is designed to inspire students to focus and strive. While P-TECH is a comprehensive school with a number of significant elements, the following provides a brief overview of the core components of the program.

Focus on Early College: Student learning is focused from grade nine on, through a six-year scope and sequence of high school and college coursework to ensure that students will earn an Associate in Applied Science degree in either Computer Science Technology or Electromechanical Engineering Technology, awarded by New York City College of Technology at CUNY, the school’s lead college partner. The curriculum is also aligned with the Common Core standards as the foundation for learning in college, particularly higher education institutions

Created in collaboration with the New York City Department of Education, New York City College of Technology, City University of New York and the IBM Corporation.

with strong math, science and engineering programs. As part of creating the early college culture, students immediately participate in other aspects of the college environment, engaging with college faculty and students.

Focus on Careers: Students participate in an ongoing, sequenced Workplace Learning curriculum informed by current and future industry standards that includes career goals, mentoring, guest speakers, workplace visits and internships. Minimum requirements for entry-level IT jobs, as provided by IBM and other industry partners, have been mapped to the curriculum and are serving as academic benchmarks and targets. A coalition of industry advisors is assuring that the program aligns with industry needs as the IT field evolves. To serve as an added incentive to students, IBM also is making graduates first in line for entry-level jobs – thereby strengthening the continuum from school to college and career.

Focus on Personal Pathways: Each student moves through a personalized academic pathway that is closely monitored by his or her teachers and advisors, based on their individual needs and performance. While the school meets all state mandates for regents and courses, the pace at which the student moves through the high school and associate degree requirements is personalized, and the requirements sequences are intricately intertwined. While all students are expected to meet high school requirements and earn their associate degree in six years, some may proceed at an accelerated pace to earn their associate degree in a shorter time.

Extended Learning Time: In addition to extending college level coursework into what has conventionally been the high school years, the school day and year also are being extended beyond the traditional schedule to include even more individual support for students.

Specialized Staffing: In order to ensure that the model is adequately supported, both the college and industry partners have provided a full-time position to the school: an Early College Liaison and an Industry Liaison. These positions work directly with the leadership, staff and students. In this way the model is continually monitored to ensure effective practice.

Created in collaboration with the New York City Department of Education, New York City College of Technology, City University of New York and the IBM Corporation.