The Science, Technology, Engineering & Mathematics Program from Passaic County Community College
Why STEM?

PCCC’s STEM Program

STEM Dual Enrollment

STEMentoring Program

Summer Bridge Workshops

Professional Development Workshops

STEM Research Program

STEM Tutoring

Professional Lecture Series

Field Trips
Why STEM?

Overall Unemployment Rate: 7.8%

Overall STEM Jobs Average Salary: $64,500

Other Occupations Average Salary: $37,870

The STEM Program at PCCC offers a unique opportunity for students to become part of the fastest growing sectors of industry. While employment is down overall, companies in the STEM disciplines cannot find skilled workers and are reaching outside our borders to get new workers. The difference between needed technical employees and available technical employees is called the SKILL GAP, and you can take advantage of this opportunity by becoming part of a STEM related field.

PCCC partners for Science, Technology, Engineering, and Mathematics (S.T.E.M.) Success is a project with an award of $4.1M from the U.S. Department of Education.

The project helps students make the transition from High School to Passaic County Community College and to a four year institution.

Project Goals for the Paterson & Passaic Public Schools Districts: Stimulate and inspire students by utilizing hands-on, collaborative learning activities to motivate high school students to excel in STEM areas. Create and expand awareness of STEM career opportunities. Offer STEM Dual Enrollment courses both off-site at the high schools, and on-site, at the College to expand STEM education.

PCCC can help by providing you a PATH to SUCCESS through our STEM Program.

Start YOUR success story by signing up for an upcoming event or program.
STEM Dual Enrollment provides high school students with an opportunity to obtain college credits while completing their required courses to graduate from high school. Students take college-level courses at no cost, the STEM program covers all the courses expenses including the required textbooks.

The STEM Program will help you prepare for the Accuplacer Test. The Accuplacer is a test everyone has to take before taking college level courses. The program will give you refreshing courses and sample tests to help you excell; all costs are covered by the Grant as well.

Accuplacer Test results from a Summer 2013 sample class.

Requirements:
• Must be a high school junior or senior.
• Must be making satisfactory progress toward fulfilling applicable secondary school graduation requirements.
• Must have the appropriate academic background for the dual enrollment course.
• Must meet the academic criteria and/or have the recommendation of a high school teacher and/or Guidance Counselor.
• Must have parental consent to enroll in the course. Students interested must speak with their Guidance Counselor.

Advantages:
• The S.T.E.M. grant covers all costs associated with S.T.E.M. Dual Enrollment courses.
• You will earn high school and college-level credits simultaneously.
• You will have more educational options in your junior and senior years of high school.
• This is a great introduction to college courses and it helps with the transition from high school to college.
The STEMentoring Program was created in 2013 founded through a grant from the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, with the ultimate goal of providing Passaic County Community College students with encouragement, support, life skills, career advisement, attitude improvement, transferring of knowledge, and friendship.

**STEMentoring Benefits**

- Weekly individual mentor-mentee contact: via email, text, or phone.
- Once a month in person meeting as a group.
- A group field trip or group experience per semester.
- A group support session per semester.
- Mentors receive constant training, support, and supervision.

Below, STEMentors meeting with their mentees for the first time during the inaugural dinner on the campus of PCCC.
Our Workshops give you a valuable opportunity to experience and expand your knowledge in a large variety of innovative subjects, in the areas of Math, Science, Computers, Chemistry and others.

PCCC’s STEM provides high school students the chance to learn while providing a small stipend for their time.

Life in a Drop of Blood Workshop

Students in the Chemical Magic Workshop

Learning how to read weather patterns from a tree’s core in Dendrochronology

Students building electronic counters and using C language to program them

Seeking alternative fuels in Environmental Science

Students learning to use AutoCAD and 3D Printers

High School Educators learning how to build and manage websites from College Professors experts in the field.

The variety of subjects offered in the Professional Workshops attracts educators from different areas of expertise.

Professionals from 4-year Institutions providing their knowledge in their areas of research to high school educators in “Math for High School Educators”

Our Workshops also provide the opportunity for educators to expand their knowledge, learn new techniques and new methods; with presentations tailor to their needs.
STEM provides College students with the opportunity to collaborate with professionals from 4-year Institutions in different research subjects. Many of the research opportunities also teach them to write professional research papers culminating with a published paper.

During the Spring of 2013, PCCC students worked with Dr. Mao from Fairleigh Dickinson University researching Modern Wireless Communications.

PCCC students on PACE University’s Rochester, New York, Campus during their research work with Biometrics and Cybersecurity. They worked on developing better ways of protecting systems and data, using behavioral patterns.

During the Fall of 2013, PCCC students learning from Dr. Chen of Fairleigh Dickinson University how to develop Mobile Applications during the Fall of 2013.

Passaic River Water Monitoring

During the Fall of 2013, college students had the opportunity to work with The Great Swamp Watershed Association, learning to monitor contaminants and pollution on the Passaic River. Students visited different sites along the river, they took water, animal, plant and soil samples and learned how to analyze them.
Aiming to increase student interest and performance in STEM studies, we offer peer-to-peer tutoring at no cost. Our tutors can help you expand and strengthen your education. All our tutors are students pursuing STEM careers and are skillful in their respective areas. Visit the STEM Lab for a visit or to get an easy to follow tutoring schedule.

Meet leading edge experts in all fields of STEM from Biology, Psycho-acoustics, Computer Hardware and Software, Space and Aviation, Biotechnology, Computer Forensics, Speech Recognition, Environmental Science, and many more.
Throughout the academic year, PCCC’s STEM provides field trips to Museums, hands on workshops, Water Treatment Plants, Recycling Centers and other STEM related facilities. These trips provide a unique experience to learn, have fun, and make important connections.

STEM students visit Microsoft’s head-quarters in New York City, October 2013.

Trip to the American Museum of Natural History with JFK High School of Paterson.

Trip to the Smithsonian Museum in Washington D.C. with Eastside High School of Paterson.

Trip to the Franklin Institute in Philadelphia.

Trip to Bergen County’s water treatment plant with Passaic High School.

Trip to Rowan University with PCCC Students.

Visiting the Great Swamp of New Jersey

Trip to the Hall of Science in New York.
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