NC STEM ALLIANCE

STEM PREP

PREPARING MINORITY STUDENTS FOR COLLEGE-LEVEL STEM STUDIES

Targeted Participants

To be eligible to participate, students must:

- Be a U.S Citizen

- Be interested in pursuing a bachelor's degree in a STEM discipline

- Be a currently enrolled CPCC student and/or an 11th or 12th grader

- Be in good academic standing as defined by CPCC's Standards of Academic Progress

How to Apply!

Interested students should visit **cpcc.edu/academics/ncsa/stem-prep** to find additional information and fill out an application.

Contact Information:

For questions, please contact the NCSA Team at ncsa@cpcc.edu

About the NC STEM Alliance

With program support from the National Science Foundation's (NSF) Louis Stokes Alliances for Minority Participations (LSAMP), the NC STEM Alliance's primary goal is to increase the number of under-represented minority (URM) students successfully transferring to four-year institutions to earn bachelor's degrees in science, technology, engineering and math (STEM) disciplines. The NC STEM Alliance is led by Central Piedmont Community College with partners Forsyth Technical Community College and Guilford Technical Community College.


National Science Foundation

STEM PREP

STEM Prep is a North Carolina STEM Alliance academic enrichment program for high school 11th and 12th graders and current CPCC students who are interested in pursing bachelor's degrees in science, technology, engineering or mathematics disciplines. STEM Prep participants are enrolled in non-credit courses that provide them with project based learning experiences. Upon completion of STEM Prep, participants will:

- Gain increased familiarity with current practices in STEM fields

- Illustrate preparedness for a successful transition into STEM studies at the college level

- Participate in a coordinated exploration of careers in their selected STEM focus area

All STEM Prep students will participate in lab-based activities in their choice of science, technology, engineering content areas. and receive a personalized math enrichment plan that is designed to prepare them for college-level mathematics.
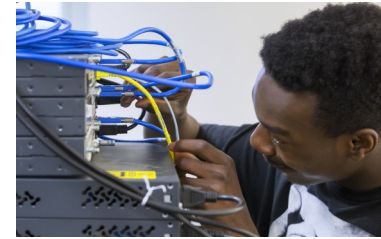
STEM Prep: Science

This course will introduce biological concepts relevant to molecular biology. Students will then use this knowledge, as well as the scientific method and critical thinking skills, to design an experiment where they will analyze a segment of their own DNA.

STEM Prep: Information Technology

Students will be introduced to basic fundamentals of computer science and application development by developing small applications using an Integrated Development Environment (IDE). Upon completion of the course, students will have an understanding of basic programming design, debugging, sequence, selection, and repetition.

STEM Prep: Engineering

The goal of this course is to teach students how to design, build and analyze projects using 21st century engineering strategies and technologies. Project experiences will include the use of tools such as, 3D printers and CAD software.

STEM Prep: Mathematics

Students will participate in collaborative projects that relate to real-life applications of math concepts. In addition to participating in hands-on activities, each student will be provided with a personalized math enrichment plan aimed at filling gaps in their mathematics foundation and positioning them for success in their future mathematics studies.