

Descriptions of STEM Programs available at Northglenn HS STEM

PLTW Pathways: Biomedical Science & Engineering

Brief Description:

STEM Pathways is an elective-based program in Engineering or Biomedical Science preparing students for post-secondary education in STEM fields.

Years to Complete:

Four years (1 elective credit per year)

College Options While in High School:

- PLTW Biomedical Science and PLTW Engineering classes can be taken as concurrent enrollment through UCCS at a significantly discounted rate starting freshman year.
- Qualifying scores on AP (Advanced Placement) tests can be applied toward course credit in college without additional costs.
- Other concurrent course offerings are available at Northglenn HS STEM including Calculus 3 at a significantly discounted rate through UCD.

Post High School Trajectory:

Students sign an agreement on their application to continue their education to a post-secondary institution.

Student Profile:

Any student interested in STEM careers.

Application Process Distinctions:

Complete applications will receive the following considerations.

- 50% is based on the student's performance on the pathway specific task;
- 25% is teacher recommendation;
- 25% is school records including: grades, attendance, and discipline.



STEM Education at Northglenn High School



Whole School Distinctions

- All freshmen take Physics, CP Physics, or AP Physics I (college credit opportunity);
- Freshmen can take two years of math their freshman year;
- Students do not need to go to another campus for specialty classes like biomedical sciences, engineering, and Calculus 3;
- Masters and PhD students (CU-Boulder Engineering, DU, and Colorado School of Mines) mentor our students on our campus.



Elements of STEM for all Students

- Students are presented with authentic problems to address in all of their subjects (this is Problem Based Learning - PBL);
- Students present their solutions to panels of industry experts;
- Students work collaboratively in teams using transdisciplinary lenses;
- Classrooms are inquiry-based student-centered learning environments;
- All departments have intentionally enhanced coursework with science, technology, engineering, and math standards.



STEM Program (PLTW & P-TECH) students

- Have guaranteed acceptance** to CU-Boulder, College of Engineering;
- Are uniquely prepared for a career in a specific discipline;
- Have priority scheduling to ensure they are able to take coursework in their pathway;
- Can earn a STEM letter every year;
- Can earn college credit starting their freshman year. (P-TECH & PLTW pathways);
- Complete a Senior Design Project which may provide them an advantage in attaining admissions to selective universities and earning scholarships;
- At completion receive a STEM certificate;
- Receive a STEM seal on their diploma;
- Receive an honor cord for graduation.



Thriving Through Partnerships

Adams 12 STEM Continuum (STEM Lab, STEM Launch, and Northglenn HS STEM) are honored to have over 300 partner organizations (industry, higher ed, non-profits, and municipalities) who work endlessly with our students and staff. We share a common vision of having our students become the job creators and community leaders ensuring our future.



** See website or flyer for details.