

CENTRAL BUCKS SCHOOL DISTRICT
Course of Study
Recommendation for Adoption

Course: STEAM Robotics 1

Date: 08-06-2026

Student Level: High School

Grade Level: Grade 9,10,11,12

Characterization of Course of Study:

STEAM Robotics 1 is an introductory, project-based course designed to develop students' knowledge and skills in robotics, engineering design, physical computing, and digital fabrication. Through hands-on experiences using Turn-Key Robotics systems, microcontrollers, (CAD), and 3D printing technologies, students explore the principles of mechanical design, electronics, automation, and problem-solving.

Students engage in the engineering design process to design, build, program, test, and improve robotic systems that solve authentic challenges. The course emphasizes creativity, innovation, collaboration, and critical thinking while introducing industry-relevant technologies and career pathways in engineering, manufacturing, automation, and computer science.

Reasons for Proposed Adoption:

STEAM Robotics 1 is a finalization of our Pilot Physical Computing courses that were available at CB West for the past two years. This course ensures vertical integration and continuation of middle school STEM concepts with a focus on physical computing and robotics. PA STEELS standards are included and were used to guide the development of STEAM Robotics 1. This project-based course is designed to strengthen technological literacy while developing the problem-solving, collaboration, and innovation skills necessary for success in an increasingly technological world.

Principal Approval Date: _____

Curriculum Committee Approval Date: _____

School Board Approval Date: _____