

CENTRAL BUCKS SCHOOL DISTRICT

Course of Study Recommendation for Adoption

Course: STEAM Design 3

Date: 08-06-2026

Student Level: High School

Grade Level: Grade 10,11,12

Characterization of Course of Study:

STEAM Design 3 is an 18 Week project-based course designed to develop students' knowledge and skills in architectural design, engineering design, CAD, and model building. Through hands-on experiences using technical sketching techniques, measuring using a scale, CAD, physical and digital modelling technologies, students explore industrial and advanced mechanical design while developing their problem-solving abilities.

Students engage in the engineering design process to design, build, program, test, and improve design 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 Design 3 is a more modern version of our former Engineering and Architecture (South and West) and Architectural Design (East). This course ensures vertical integration and continuation of high school level 2 STEAM concepts with a focus on technical sketching, CAD, model creation and measuring accurately using a scale within the architectural and engineering world. PA STEELS standards are included and were used to guide the development of STEAM Design 3. 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: _____