

STEM State Program Area Descriptions

Engineering & Technology Pathway:

Pre-Engineering STEM Academy: The **Pre-Engineering STEM** State Program Area is an intensive academy that focuses on projects and enables the student to experience different types of engineering. Students will be able to test for college credit through AP courses and successfully transition to post-secondary.

Applied Engineer: The **Applied Engineer** State Program Area introduces students to a variety of engineering pathways related to agriculture, manufacturing, drafting, robotics, medical, and electrical. Students utilize rigorous hands-on activities in enrollment, mechanical, electrical, architectural, and industrial engineering. Students will calibrate a wide range of components using specialized test equipment in the medical and agriculture areas.

Computer Science STEM Academy: The **Computer Science STEM Academy** State Program Area is an academically intense academy that engages high school students in computational thinking and prepares a computationally aware and capable workforce. Students will be able to test for college credit through AP courses and successfully transition to post-secondary.

Robotics Engineering: The **Robotics Engineering** State Program introduces student to the use of robotics engineering. Student learn foundational knowledge about designing, testing, and building robots that are productive and safe to operate. This is a project-based program which focuses on the robotics engineering field. Recommend state program hours 480.