Lee High School STEM Academy: Transitioning to P-TECH – Opening Doors to Student Success

The STEM Academy at Lee High School is embarking on an exciting transformation as we transition into a P-TECH (Pathways in Technology Early College High School) program. This transition will create new opportunities for our students by offering a robust academic and career-focused program that prepares them for the future with valuable skills, experience, and credentials.

What is P-TECH?

P-TECH is an innovative education model that connects high school, college, and career pathways. Through our P-TECH program, STEM Academy students will have the opportunity to graduate with both a high school diploma and an industry-recognized associate degree in key STEM-related fields—at no cost to the student.

The P-TECH program blends academic coursework with hands-on learning, workplace experiences, and professional mentorship from industry partners. Collaborating with higher education institutions and local businesses, P-TECH provides students with the skills they need to thrive in high-demand STEM industries, such as healthcare, information technology, engineering, and more.

How P-TECH Benefits STEM Academy Students

P-TECH offers significant advantages for our STEM Academy students:

Tuition-Free College Credits: Students can earn up to 60 college credits while completing high school, giving them a head start on both higher education and career opportunities.

Career-Ready Skills: By working with industry professionals, students will gain real-world experiences through internships, mentorships, and workplace learning opportunities.

Personalized STEM Pathways: P-TECH allows students to explore career-focused pathways in science, technology, engineering, and mathematics (STEM), helping them align their education with their personal career goals.

Work-Based Learning Opportunities: Through our partnerships with local industries, P-TECH students will have direct access to career opportunities, setting them up for success upon graduation.

Robotics

Robotics serves as a powerful platform for integrating science, technology, engineering, and mathematics (STEM) concepts in a hands-on, engaging manner. When designing and building robots, students apply scientific principles like physics and mechanics to understand motion, forces, and energy transfer. They utilize technology through programming and electronic components, learning about sensors, circuits, and automation. The engineering design process comes to life as students prototype, test, and iterate on their robotic creations, applying principles of structural design and problem-solving. Mathematical concepts are essential for robot functionality, with students using geometry, algebra, and even trigonometry to calculate precise movements and optimize performance.

Robotics in Industry: Workcell

The VEX CTE Workcell kit is a construction system for a robotic arm, conveyors, and sensors.

Workcell acts as a primer, introducing students to manufacturing concepts like construction, palletizing, and coordinate planes to empower the manufacturing workforce of the future with a foundation of understanding.

Students are learning about coding movements, controlling the path, coding shapes, absolute versus relative movements, sorting, stacking, pneumatics transportation and logistics.

This interdisciplinary approach mirrors real-world applications of robotics across various industries. In manufacturing, robots enhance efficiency and precision on assembly lines. Healthcare benefits from robotic assistants in surgeries, drug dispensing, and patient care. Robotics also plays crucial roles in space exploration, agriculture, and environmental monitoring, showcasing how STEM skills translate into innovative solutions for complex challenges

Upcoming Events

October							
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Notes
		1	2	3	4	5	
PTECH Spirit Week	Dress Up Day: Power Monday	Dress Up Day: PINK OUT	Dress Up Day: College Day	PR 2 Grades in Portal/ Dress Up Day: Future Career Day	Dress Up Day: Geek Squad		*Ganderneers meet **every Wednesday** after school
6	7	8	9	10	11	12	
			*Ganderneers Club After School		Early Release MP1 Ends		
13	14	15	16	17	18	19	
Fall Break - No School							
20	21	22	23	24	25	26	
	Maritime/Logistics Recruitment Tours at Lee HS for incoming 8th Graders		*Ganderneers Club After School/ College & Career Night at GCM	Maritime/Logistics Recruitment Tours at Lee HS for incoming 8th Graders	Maritime/Logistics Recruitment Tours at Lee HS for incoming 8th Graders		Maritime/Logistics Recruitment Oct 21, 24 & 25
27	28	29	30	31			
			*Ganderneers Club After School		Maritime Middle School Field Day at San Jac Maritime		Juniors - Be sure to sign up for our Lamar University Field Trip (Nov 8)
STEM			Cosmetology				Maritime

Academy Handbook

Academy Administration Team

Logistics Lookout

Maritime 1min Minute

Did you hear about Lee's new Logistics Program?

Current 8th graders interested in our Logistics and Maritime progams will have an opportunity to visit Lee HS towards the end of October. Spread the word!