SAINT PATRICK
HIGH SCHOOL

Brullo Family Science Center

Science-Technology-Engineering-Art-Math

Innovative Opportunities for 21st Century Learners

STEAM Program Mission

Saint Patrick High School's STEAM program (Science, Technology, Engineering, Art and Mathematics) strives to give all students increased opportunities by taking part in experiential learning, developing meaningful STEAM skills, and exposing students to opportunities that will prepare them to be innovators of a 21st century economy and world.

According to a 2013 report from the U.S. Department of Education, only 40% of high school students are prepared to take college level science and math coursework. Providing access to a STEAM program allows students to weave together ideas from various disciplines, think critically, be creative, and use discovery as an engine for learning. This program strives to help Saint Patrick students think deeply and be prepared to transform into future innovators, educators, researchers, and leaders who can solve challenges our world faces today and in the future.

Experiential STEAM Learning

This STEAM program is truly college prepatory as it encompasses enriching, quality coursework in STEAM fields, elective opportunities, and clubs that all Saint Patrick students take part in during their high school career.

COURSES

STEAM, 1, 2, 3, and 4
Robotics
Computer Science 1
Aquatic Science
PACC Anatomy & Physiology electives
PACC Probability and Statistics
Accounting
INCubator & Psychology courses
Principles of Visual Design
Computer Graphics
Web Page Development
Graphic Design 1, 2, & 3
Technical Theatre

CLUBS

Robotics
Chess Team
Coding
STEAM Club
Math Team
Art Club
MakerSpace

STEAM for All


INCubator Lab

Our STEAM program offers students a variety of ways in which they can experience STEAM whether that be through clubs, courses, or electives across many disciplines. Starting in the 2017-2018 school year, we will offer a four-year STEAM track in which students in the class of 2021 can choose to take Earned STEAM components that complement their core science courses.

Increased Opportunity

This STEAM program creates opportunities for students to explore their specific interests. There are STEAM learning opportunities available to all Saint Patrick students including internship opportunities for STEAM track students.

Renovation of Science Classrooms

With this new offering, we have remodel science rooms to be high-functioning innovative spaces now and for years to come. What was currently a traditional lecture space, room 302, has been transformed into a place where students can work easily in groups, have discussions, and allow for a more student centered learning environment. The chemistry lab, room 304, has been transformed into a modern lab space where students of all scientific disciplines can better implement scientific inquiries and experiments. In 2016, the new INCubator space was created, where students identify problematic issues in society and design creative solutions to improve the way humans live and interact with our world.

Projected STEAM Program Implementation

Phase 1 (2016-2018) COMPLETED

- Gather data from students, staff, and community members to design a STEAM program that is truly molded for Saint Patrick High School (*completed*)
- Create STEAM professional development opportunities for staff (in progress)
- Create verified Science curriculum that utilizes technology, engineering practices, and math heavily to enhance experiential science learning, ensuring Saint Patrick is a truly competitive school in regards to science (in progress)
- Create Robotics course, tailored to students needs and interests (*completed*)
- Assess current STEAM clubs (FTC, Robotics, coding, STEAM) and make necessary modifications to increase their positive impact to students (student interest survey, in progress)
- Showcase STEAM learning at 2016-2017 open houses and middle school STEAM nights (in progress)
- Facilitate collaboration between math, art, and science teachers to make plans for STEAM (in progress)

2017-2018 COMPLETED

- Create and implement STEAM track for STEAM program students, open to the class of 2021
- Create new/revised STEAM elective based on teacher talents and students' interests (Currently Earth and Space Science)
- Use environmental science as a tool and engine to create meaningful science learning within all science courses
- Revise current traditional science classroom(s) to a dynamic, 21st century learning space for all students to utilize

Phase 2 (2018-2019) COMPLETED

- Emphasize the "A" efforts to increase Art presence in STEAM program
- Create a student leadership team for STEAM (STEAM club)
- Form partnerships with alumni in STEAM fields and develop other STEAM partnerships with local groups/companies
- Implement first accelerated track group of students to enter as sophomores
- STEAM field trips in STEAM clubs

Phase 3 (2019-2020)

- Create interdisciplinary aspects to all courses at Saint Patrick High School **(COMPLETED)**
- Collaborate with English courses to choose STEAM reading options for students
- Collaborate with religion courses to design bioethics lessons the relate to Biology, Chemistry, and Physics coursework
- Collaborate with physical education courses work to incorporate STEAM data collection and training

Phase 4 (2020-2021)

- Create summer internship opportunities with Saint Patrick alumni in STEAM fields **(COMPLETED)**
- Collaboration between INCubator course and STEAM elective
- Make necessary modifications to program based on students' interests