Parish STEM
Diploma Endorsement Program

Grounded in systems thinking, critical analysis, and collaboration, this program offers advanced coursework in science and math, specialized electives in engineering and technology, and culminates in an interdisciplinary capstone project that equips students to tackle complex problems across disciplines. Students who successfully complete the program requirements receive a STEM endorsement on their diplomas, an enduring mark that recognizes the sum of their program-related accomplishments.

Program Objectives:

- Systems Mastery: Build a deep understanding of systems thinking and real-world application
- Critical Thinking: Enhance problem-solving and interdisciplinary skills to foster innovation
- Innovators: Promote teamwork and collaboration, recognizing the power of collective solutions
- Global Citizenship: Raise awareness of global and local systemic issues
- Problem Solving: Encourage creative and innovative approaches to complex challenges

Program Requirements:

- Minimum GPA of 3.0 in all STEM coursework
- Take at least one Engineering or Computer Science course and participate in STEM co-curricular activities 9th grade year
- Engage in STEM-related community service (e.g., assisting with math lab, robotics, tutoring, Den Squad). Complete five hours between 10th and 12th grade, part of the 45 total service hours for those three grades
- Participate in extracurricular activities such as clubs, conferences, math contests (TXML or AMC), or STEM Parish Abroad
- Attend STEM Cohort monthly meetings
- Successful completion of a STEM capstone project and presentation in the 12th grade year

STEM Coursework Requirements:

(in addition to Core Graduation Requirements)

- Mathematics: AP AB or BC Calculus
- Science: AP Level Science
- Combinations of Engineering and Computer Science (1 credit)
- Capstone: Innovative Systems: Human-Centered Design and Experiential Solutions (1 credit)
- Art: Graphic Design taken as .33 of 1 credit

Application Process

(Conducted during 9th grade year)

- February - Applications open
- March - Interviews
- April - Decision communication
- May - Accepted candidates attend Information Kickoff Session (parents & students)

Capstone Project

The 12th-grade capstone project provides students with a unique opportunity to apply their knowledge of STEM-related fields through the lens of human-centered design. As part of this course, students will engage in experimental design, conduct in-depth research and develop technical writing skills, all while honing their systems thinking abilities. This interdisciplinary project challenges students to design innovative solutions to real-world problems, preparing them to navigate the complex, interconnected challenges of the future. The capstone will be completed as part of a course focused on human-centered design, with an emphasis on critical analysis, creativity and problem-solving.

For inquiries, please reach out to:

Megan Williams
Director of STEM Integration
mwilliams@parish.org