



Hornbeck Offshore Services Pre-Engineering Department



PLTW (Project Lead the Way) is the leading provider of rigorous and innovative STEM (science, technology, engineering and math) education curricular programs in schools across the country. The hands-on, project-based program engages students on multiple levels, exposes them to areas of study that they typically do not pursue and provides them with a foundation and proven path to college and career success.

Department Members:

Mr. David Arbo, MS

Mrs. Julie Beck, MEd

Mr. John Carambat, MA

Mr. Eric Orphys, MEd

Mrs. Rachel Peak, BS

Mr. Kyle Smith,

Mr. Mark Richards, MST

The Pre-Engineering Department's courses include:

- Gateway to Technology(GTT) – Our Pre-freshman science course not only prepares students for their high school science sequences, but introduces both our biomedical and pre-engineering programs
- Introduction to Engineering Design(IED) – available as an elective for freshmen, sophomores, juniors and seniors
- Computer Science Essentials(CSE) – Introductory course open to freshmen, sophomores, juniors and seniors
- Principles of Engineering(POE) – available as an elective after completing IED for sophomores, juniors and seniors
- Petroleum Engineering(PE) – a standalone elective for juniors and seniors
- Civil Engineering and Architecture(CEA) – available as an elective after completing POE for juniors and seniors
- Digital Electronics(DE) – available as an elective after completing POE for juniors and seniors
- AP Computer Science Principles(AP-CSP) – available as an elective for sophomores, juniors and seniors after completing CSE
- AP Computer Science A (JAVA)(AP-CSA) – available as an elective for junior and seniors after completing AP-CSP
- Engineering Development and Design(EDD) – Capstone engineering design course for seniors after completing at least two other pre-engineering or computer science courses

Special Activities:

- VEX Robotics Club – ‘Robo-Wolves’
- FIRST Robotics League
- Sea-Perch Underwater ROV Club
- TEAMS (Tests of Engineering Aptitude, Mathematics and Science) Engineering Club
- Computer Club
- Various field experiences in engineering related occupations
- Advanced Placement test offered in Computer Science Principles and Computer Science A

Awards and Recognitions:

- Nationally Certified by Project Lead the Way
- Rachel Peak selected as AP-CSP Table leader for the national Computer Science Principles Test
- Julie Beck selected as a PLTW Master Teacher leading teacher training summer workshops across the country
- 2016-2018 VEX Robotics, State Tournament Champions and Excellence Award Winners
- 2017 Julie Beck recognized as a Louisiana Outstanding PLTW teacher
- 2016 Trevor Watkins recognized as a Louisiana Outstanding PLTW Administrator
- 2015-2018 VEX Robotics teams attended VEX Worlds Competition in Louisville, KY

For additional information contact **Rachel Peak, Pre-Engineering Department Chair**, at rachelp@stpauls.com



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