

# PRE-ENGINEERING PATHWAY FOR STUDENTS

Louisiana State University

LSU

## INTRODUCTION

The LSU Pre-Engineering STEM Certification Pathway began in 2016 with the goal of increasing the number of students taking high quality LSU STEM courses from LSU-trained and supported teachers. The three pillars of the pathway are: computational thinking, 21st century skills, and engineering knowledge.

## COURSES

### 9th Grade

- Introduction to Engineering (Dual Enrollment optional)
- Introduction to Computational Thinking

### 10th Grade

- Introduction to Robotics (VEX)
- Principles of Engineering  
OR
- Engineering Design and Devel.

### 11th/12th Grade

- Various Electives (including AP and Dual Enrollment options)



## WHY DO THIS PATHWAY?

Silver and Gold STEM Endorsement opportunity upon high school graduation

To learn more visit: <https://www.louisianabelieves.com/> and search for “STEM”.

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Earn LSU credit (select courses only) and take high quality project-based courses that expose you to the safety and ethics of engineering

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Engaging classes with no high stakes end of course testing like AP exams or LEAP2025!

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Learn skills like soldering, drafting, circuit building, 3D modeling and printing, building robots, and programming sensors.

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Earn Industry Based Certifications (select courses only)

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Students have the opportunity to qualify for a \$1,500 LSU Engineering freshman scholarship