## STEM Jumpstart Pathways at LEE

Lee Magnet High School is leading the state in STEM Pathways developed in partnership with Louisiana State University. Students complete eight courses from the approved list, including required core electives (*), and then an Advanced JumpStart Credential is issued by LSU. In Summer 2018, LEE, LSU and LDOE will bring the Digital Design & Emergent Media JumpStart Pathway to BESE for approval. Biomedical and Computational Thinking JumpStart Pathways are still under development but will be presented to BESE for approval in Summer 2019.

### Pre-Engineering

Pre-Engineering students will have experiences in hands-on engineering, robotics, and computer science courses, as well as Advanced Placement math and science courses.

**Yr1**  
Intro to Engineering  
Intro to Computational Thinking

**Yr2**  
Intro to Robotics  
Principles of Engineering

**Yr3**  
Engineering Design & Development  
Data Manipulation and Analysis  
Advanced Robotics

**Yr4**  
Engineering Capstone  
Engineering Economy

**Other Recommended Courses:**  
- Statistical Reasoning/AP Statistics  
- Advanced Math DE  
- AP Calculus AB, BC  
- AP Computer Science A, Principles  
- AP Biology/Biology II/Biology DE  
- AP Chemistry/Chemistry II/Chemistry DE  
- AP Physics I&II, C,M, C,E&M  
- AP Environmental Science/Coastal Studies DE

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### Digital Design & Emergent Media

Digital Design & Emergent Media students produce intertwining content from interdisciplinary entertainment fields such as digital media, interactive design, art, and creative coding.

**Yr1**  
Intro to Biomedical Sciences

**Yr2**  
Intro to Computational Thinking

**Yr3**  
Comparative Anatomy & Physiology  
Modeling & Simulations  
Ecology Lab  
Sports Medicine I  
Forensic Science  
Data Manipulation and Analysis

**Yr4**  
Biomedical Capstone  
Research Methodology  
Microbiology

**Other Recommended Courses:**  
- Statistical Reasoning, AP Statistics  
- Advanced Math DE, AP Calculus AB, BC  
- AP Computer Science A, Principles  
- AP Biology/Biology II/Biology DE  
- AP Chemistry/Chemistry II/Chemistry DE  
- AP Physics I&II, C,M, C,E&M  
- AP Environmental Science/Coastal Studies DE

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### Biomedical

Biomedical students are exposed to various facets of the biomedical field including anatomy, forensics, bioengineering, nutrition, psychology, microbiology and pharmacology through projects and internships.

**Yr1**  
Digital Story Telling  
Intro to Computational Thinking

**Yr2**  
Programming for Digital Media  
Intro to Film, Photography or Music  
Coding for the Web

**Yr3**  
Web Design & Structure  
Digital Image & Motion Graphics  
Intermediate Photography  
Intermediate Film  
Sound Design (DE)

**Yr4**  
Interactive Digital Media Capstone  
Video Game Design  
Advanced Film  
Film & Television  
Advanced Photography  
AP Music Theory

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### Computational Thinking

Computational thinking students gain programming experience while enhancing their mathematical skills through problem-solving scenarios that involve science, engineering, and mathematics.

**Yr1**  
Exploring Computer Science  
Intro to Computational Thinking

**Yr2**  
Computer Science I  
Modeling and Simulations

**Yr3**  
Computer Science II  
Data Manipulation and Analysis

**Yr4**  
AP Computer Science A  
AP Computer Science Principles  
Computer Science Capstone

**Other Recommended Courses:**  
- Programming for Digital Media  
- Programming for Engineers  
- Coding for the Web