



2021 LSU STEM PATHWAYS PROGRAM: Middle School Cohort

- **Intro to STEM Pathways and Careers (7th or 8th grade)**
 - **Survey of Computer Science (8th or 9th grade)**

Do you want to offer high quality, project-based, BESE-approved middle school STEM courses to students at your school? **The LSU STEM Pathways Program is here to help!**

LSU’s STEM Pathway courses may earn districts CTE funding as well as SPS points for completing high school credit courses in middle school. For a school to be able to offer courses within the LSU STEM Pathways framework, teachers must already be trained or become trained to teach a specific course. Teachers can become certified to teach a specific Pathway course by attending the **2021 LSU Pathways Virtual Summer Training Institute**.

SUMMER TRAINING INSTITUTE INFORMATION	
Session 1: JUNE 7- JUNE 22 Session 2: JUNE 23 - JULY 9	\$1,920 per course section

Will you be offering an LSU STEM Pathway course in 2021-22?

STEP 1: All new and returning schools should complete the **Letter of Intent** by April 1st:

<https://forms.gle/CCuujkRBSUSSrFbr7>

STEP 2: After receiving the Letter of Intent, teachers who need to be trained will be provided a registration link for the training institute and the schools/districts will receive a Memorandum of Understanding (MoU) which has to be returned to LSU by May 1, 2021.

Teachers are not assumed to have any content-specific prior knowledge; a strong work ethic and a desire to engage in project-based learning are expected. Schools/Districts are encouraged to pay a teacher a stipend for attending the training.

If you have questions, please send an email to stempathways@lsu.edu.

**LSU STEM CERTIFICATION PATHWAYS: VIRTUAL 2021 SUMMER TRAINING INSTITUTE
MIDDLE SCHOOL OPTIONS**

Session 1: June 7th- June 22nd Session 2: June 23rd - July 9th

Due to the pandemic, we will be offering this year's summer training in a virtual setting, with some required face-to-face Saturday workshops this fall and next spring. Synchronous online meetings will occur at different points each day between **8 AM - 1 PM** and/or **12:00 PM - 5:00 PM**. Group synchronous time will be **12:00 PM - 1:00 PM** each day. Assignments and asynchronous materials will be completed between each synchronous online meeting.

Session I
12 days: M 6/7 - F 6/11, M 6/14 - F 6/18, M 6/21 - T 6/22

Session II
12 days: W 6/23 - F 6/25, M 6/28- F 7/2, T 7/6- F 7/9

MIDDLE SCHOOL COURSES

Intro to STEM Pathways and Careers
7th or 8th grade; 061139
(AM and PM Synchronous)
No Prerequisites

Survey of Computer Science
8th or 9th grade, 061179
(AM Synchronous), No Prerequisites
Available for Graduate Credit¹

MIDDLE SCHOOL COURSE DESCRIPTIONS

Intro to STEM Pathways and Careers (7th or 8th grade, 061139): This year-long course is offered to middle school students for high school credit and serves as a universal course elective for the LSU STEM Pathways as well as JUMPSTART 2.0 and PLTW. The course explores four main pathways of STEM education and possible careers in the fields of 1) Computing and Computer Science, 2) Pre-Engineering, 3) Digital Design and Emergent Media, and 4) Biomedical Sciences. The course exposes students to these overarching concepts:

- To expand awareness of various careers and occupational pathways related to STEM.
- To stimulate the understanding of higher order thinking processes such as the engineering design process, the scientific method, and computational thinking.
- To develop foundational knowledge and skills in the JumpStart pathways and careers as related to STEM, and utilize the knowledge and skills in their current educational setting.
- To increase interest in the four core areas of STEM related to this class through project-based activities that are also standards based.

Survey Computer Science (8th or 9th grade, 061179): This one-year course can be taken in middle school for high school credit and counts as either a core course or as an elective course for the LSU Computing Pathway. It introduces the basics of computing using fun and engaging activities instead of formally describing the concepts. This course follows the framework of Big Ideas adopted in the AP Computer Science Principles (CSP) course, but it has more emphasis on exploration and experimentation, and less emphasis on problem-solving and formal analysis than a regular CSP course. To prepare students for the rigors of other courses in the Pathways, this course models ways to adopt a productive disposition that fosters creativity and perseverance, with a focus on developing students' interest in computing and identification with the computing professions.

¹ This summer training course can be taken for graduate credit with a full tuition scholarship (course fees have to be paid by participants or their schools). Participating teachers who want to receive graduate credit must enroll in the LSU Graduate School by May 1, 2021. If you are interested in receiving grad credit, please send a brief email to stempathways@lsu.edu