

## FIRST® LEGO® League Challenge Remote Professional Development

### Remote Course Description

FIRST® LEGO® League Challenge professional development course is designed for new and inexperienced teachers, facilitators, coaches, and mentors to enhance their overall FIRST® program knowledge, giving participants a strong understanding of how to implement all aspects of the program and how to achieve STEM learning objectives. In Challenge, teams of students in grades 4-8 engage in research, problem-solving, coding, and engineering - building and programming a LEGO® robot that navigates the missions of a robot game. Friendly competition is at the heart of the Challenge program, and participants will walk in the footsteps of the students as they engage in hands-on experiences. The course is customized to meet the unique needs of participants in a remote setting while modeling how to inspire their students to become confident and creative innovators and collaborators.

### Remote Course Requirements

- Computer with Internet Access (Required second screen or device to allow programming and video communication at the same time)
- FIRST LEGO League Challenge Set
- *Team Meeting Guide* – can be accessed [digitally](#)
- *Engineering Notebook* – can be accessed [digitally](#)
- *Robot Game Rulebook* – can be accessed [digitally](#)
- Unbuilt LEGO® Education SPIKE™ Prime Core Set
- LEGO® Education software downloaded prior to the first session
  - <https://education.lego.com/en-us/downloads> - Be sure to download, install, and restart your computer.
  - **OR** web-based SPIKE Essential app: <https://spike.legoeducation.com> (use a Chrome browser)

\*You can use a current or prior season Challenge Set, *Team Meeting Guide*, *Engineering Notebooks*, and *Robot Game Rulebook*.

\*\*Challenge materials are included with a Class Pack or Individual Team Registration and can be purchased through the [FIRST Dashboard](#), as well as the LEGO Education SPIKE Prime.

### Remote Course Objectives

By the end of this course, you will:

- Participate in the FIRST experience from a student's point of view.
- Become familiar with FIRST LEGO League Challenge materials and program implementation.
- Learn how to guide students through the science behind the Challenge theme and facilitate the creative design of a solution (or modify an existing solution) to a real-world problem.
- Build a LEGO Education SPIKE Prime robot.
- Learn introductory block-based programming concepts using the LEGO Education SPIKE App.
- Understand how to prepare students for a culminating celebration/competition.
- Be able to foster computational thinking, collaboration, and problem-solving skills.
- Develop experience with Project-Based Learning, the Engineering Design Process, and 21st Century Skills.
- Utilize, model, and reinforce the FIRST Core Values!