FIRST® LEGO® League Challenge Remote Professional Development

Remote Course Description

FIRST® LEGO® League Challenge professional development course is designed for new and experienced 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
  - 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.
- Have experience with Project-Based Learning, the Engineering Design Process, and 21st Century Skills.
- Implement Diversity and Inclusion practices.
- Utilize, model, and reinforce the FIRST Core Values!