

Logical Foundations of Cyber-Physical Systems (15-424)

Submitted by [Andre Platzer](#) on Tue, 04/02/2019 - 1:48pm

This video sequence accompanies the textbook on Logical Foundations of Cyber-Physical Systems, which teaches undergraduate students the core principles behind CPSs. Designing algorithms for CPSs is challenging due to their tight coupling with physical behavior, while it is vital that these algorithms be correct because we rely on them for safety-critical tasks. The textbook and videos show how to develop models and controls; identify safety specifications and critical properties; reason rigorously about CPS models; leverage multi-dynamical systems compositionality to tame CPS complexity; verify CPS models of appropriate scale in logic; and develop an intuition for operational effects.

Course: [Logical Foundations of Cyber-Physical Systems](#)

Video: video.lfcps.org

