We discuss a flipping of the learning environment in which application comes before the introduction of the mathematics. In a differential equations course in which modeling is the driving force and technology is used throughout the learning process we demonstrate how a learning community at www.simiode.org supports such an approach. We call it SIMIODE - Systemic Initiative for Modeling Investigations and Opportunities with Differential Equations. We will give examples of such flipping. (Received September 09, 2014)