Teaching methodology is evolving with modern time. Gone are those days when students were learning procedural differential equations from the analytical prospective. There is a great need to update the pedagogies to introduce modeling first to appreciate the differential equations techniques. Inspired by MINDE workshop, I introduced the modeling first approach in my classroom teaching to welcome inquiry oriented learning. Data collection, data visualization, and parameter estimation using technology has gained better understanding of math modeling using differential equations not only for Math major but also all STEM students who take differential equations as a core course. In this talk, I will present my effort to incorporate SIMIODE modeling scenarios in my differential equations and mathematical modeling classes. (Received September 16, 2019)