Projects provide tangible connections to course content and can motivate students to learn at a deeper level. This talk focuses on the efficient implementation of projects in a Differential Equations course which develop and analyze mathematical models of a problem based upon known data and real-life situations. Logistical pitfalls and insights are highlighted as well as several key implementation resources, such as SIMIODE and other community support. Student feedback demonstrates a positive correlation between the use of projects and an enhanced understanding of the course topics when logistical issues are reduced. Best practices learned over the years will be shared along with example projects. (Received August 04, 2017)