Top Lessons from my differential equations class

After completing my differential equations math class, the time has come to reflect on its most important lessons. Furthermore, I hope these lessons assist others who are on their respective stem journeys; and I also hope this guide can guide someone who is about to take this particular class.

To begin differential equations are equations with derivatives in them. Derivatives are slopes of functions; so calculus is naturally required. In order to take a differential equations class at Diablo valley college three levels of calculus are required. Next, the most important lessons I have gathered will be below.

First, differential equations is extremely beneficial if you want to do a STEM job in the real world. Examples involving the use of differential equations include but are not limited to circuit analysis, viral spread, population growth and decline, and analysis of spring mass systems. All of these topics were interesting to me; and consequently motivate me to further study math and science. Most importantly, when doing real world problems always do your best to conceptualize what is going on. I remember having a hard time doing that regarding the population problems. Other than that, I found these real world topics instructive.

When taking differential equations or any other class for that matter, take it seriously. Taking the class seriously requires that one follow process. Begin by reading the syllabus so the expectations are clear. Next, start assignments early. Working on homework and class work early is helpful because it is hard to complete tasks in a rush. If your teacher allows it, make a notecard for a test. This is important because one can clarify what they otherwise do not understand. I have had much more piece of mind on tests when I created a notecard. Last but not least, get some sleep before tests. Hopefully the reasons for a good night's sleep before a test are self-explanatory.

Overall differential equations is a fun and interesting class. Keep in mind that it is a very time consuming class that is computationally tedious. I nspite of the tedium, the class is manageable if work is done early, material is read in advance, and one studies for the tests. Last but certainly not least, I have learned that there are plenty of topics in differential equations that I have gained experience in; but I still have much more to study and understand.