**MATLAB Chapter 7 Assignment**

In this course you will complete multiple MATLAB assignments that are aligned to the curriculum. Other than the introductory assignment, all assignments will be completed entirely on your own. If you should run into problems, you should seek help immediately from your professor, the course coordinator, or the Academic Center. Assignments will be marked down for using codes that are not presented to you in the guide. If you find a command that works and has not been presented to you, you should seek approval from the professor or course coordinator before turning in the assignment. MATLAB is available on all computers in the K-Building and L288 (Academic Center). Upload the published solution to Canvas using the assignment link.

Answer/Interpret the following in complete sentences using either “*disp*” or “*fprintf*” commands. Be sure to label values in your code and write comments to clarify lines or sections as necessary.

Because of an insufficient oxygen supply, the trout population in a lake is dying. The population’s rate of change can be modeled by  where *t* is time in days. When , the population is 3,150.

1. Find a model for the population.
2. What is the population of fish after 11 days? (Round your answer to the nearest integer.)
3. How long (in days) will it take for the entire trout population to die? (Assume the entire population has died off when the population is less than one. Round your answer to one decimal place.)
4. Graph the population model found in (a). Set the *t*-axis to extend far enough to include the answer to (c).

Tips:

* Recall the Net Change and Future Value Theorem from Calculus I.
* Be sure your graph has a title and axis labels.