**Educational tasks for students**

**If teaching your students about the FFM you can use these as ‘homework’ tasks**

**Task 1:**

In excel, using the fitness fatigue formula calculate the performance of an athlete over 100 days (i.e. you should have a performance value in each row representing a day)

where is the initial performance level, (days) goes from 0 to 100.

Assume that the athlete has a daily input of 100 for for 80 days, and then tapers this by reducing the input by 2 units every day (up to the final day, day 100).

Make your calculations with the following parameters

**Task 2:**

You will see that task 1 is hard to complete in excel in a compact way due to the summing that has to be done. So you may have to include lots of columns to complete your calculation. For task 2 you will complete the above analysis using a more effective recursive method.

To start you off on this one.

Note, that in all of these examples because you are training every day, so the closest training session is always just one day behind.

**Task 3 (As part of an R course):**

Write a function in R to calculate and plot the performance across days for both methods above by inputting w(t), and all of the parameter values (i.e. by providing a data frame).

Course to complete first is: https://www.coursera.org/learn/r-programming