

CE 418 THIRD EXAM STUDY GUIDE

Format will be **Open Book/Open Note**

CHAPTER 12

You should reread all material assigned in the class syllabus

You should review the board notes presented in class.

You should be able to demonstrate by computation that you can

1. Apply the NRC trickling filter equations.
2. Calculate or apply in design aeration tank hydraulic retention time and sludge age (mean cell retention time) in activated sludge.
3. Calculate or apply in design food-to-microorganism ratio and BOD loading (per volume)
3. Calculate Monod kinetics and other growth parameters given pilot activated sludge measurements.
4. Apply aeration transfer calculations to size aeration equipment.
5. Determine $K_L a$ from aeration test results.
6. Apply aerated lagoon treatment calculations.