

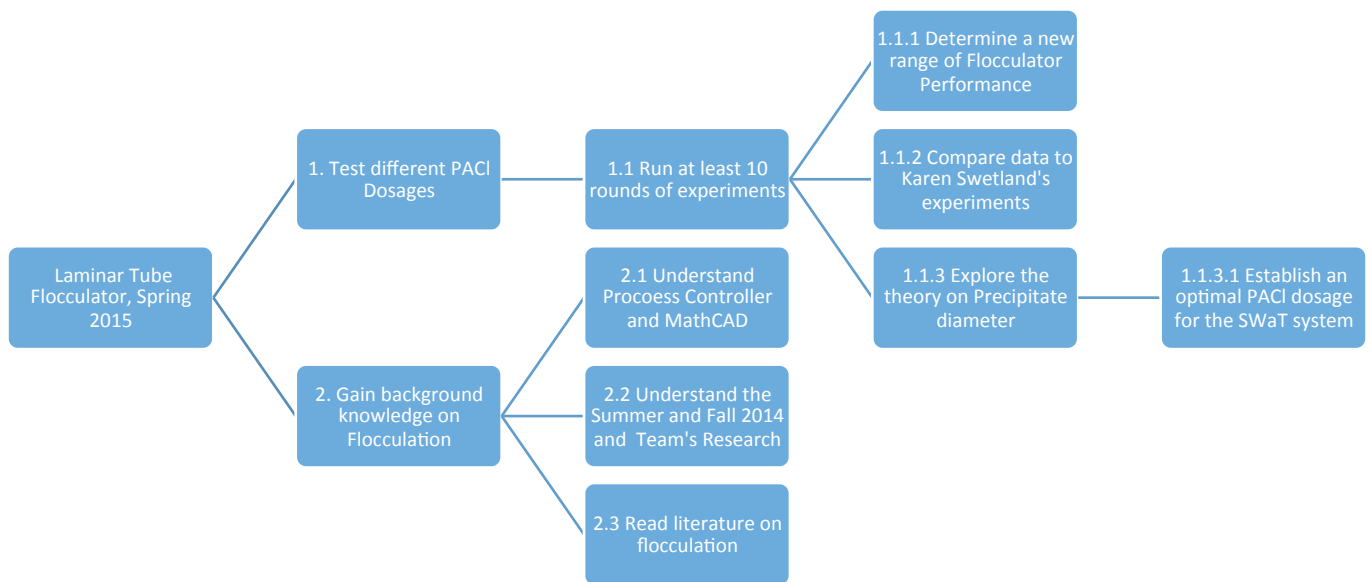
Laminar Tube Flocculator, Spring 2015

Luyan Sun (team coordinator), Tanvi Naidu (experiment coordinator), Kevin Shao (data coordinator)

February 2nd, 2015

Task List

Task Map



Task Details

Gain background knowledge flocculation (Block 2) - February 2 - 9, 2015 (Luyan)

- Read and understand the report from the summer and fall
- Read literature on flocculation
- Meet with Casey for Process Controller by last Friday 2/6

Understand PC and MathCAD (Block 2.1) - Wednesday February 6 - 11, 2015 (Kevin)

- Get used to process control and MathCAD

Getting Ready for Testing (Block 1) - February 9-18, 2015 (Tanvi)

- Meet with Monroe
- Testing and cleaning the laminar tube flocculator
- Testing the water supply

Start Testing (Block 1) - Monday February 18-23, 2015 (Kevin)

- Calibrating Pumps and measuring flows/make sure everything is ready to go
- Understanding the method file that the summer and fall team left
- Start testing

Testing (Block 1.1 and 1.1.1/1.1.2) - February 25 – March 16, 2015 (Tanvi)

- Rounds of experiments starting from low dosage of 0.1 mg/L
- Discuss results with Will and Monroe (eventually)

Mid-semester symposium - March 16, 2015 (Luyan)

- Prepare for mid-semester symposium – two days

Testing (Block 1.1 and 1.1.1/1.1.2) - March 18 – April 28, 2015 (Tanvi)

- Rounds of experiments at lower/higher dosages TBD
- Discuss results

Finish Testing - Wednesday April 29, 2015 (Kevin)

- Find literature for report
- Continue running experiments
- Discuss results (Block 1.1.3 / 1.1.3.1)

Final Report - Wednesday May 6, 2015 (Luyan)

- Final report draft due

TBA

- Final report – one week

Experiment Details

- Repeat experiments with a new range of PACl dosages that produces pC* from 0 to 2. These tests are designed to produce a set of data that is similar to that obtained [by Karen Swetland](#).

- Compare the results obtained using the SWaT system with the previous results obtained using FReTA (Flocculation residual turbidity analyzer) and plot them on the same graph. Explore the possibility that the PACl precipitate diameter is much smaller for the liquid PACl than it was for the granular PACl.
- Find the range of flocculator performance from worst to best