

# sk2795

## Sung Min's Individual Contribution Page

### "Semester" Contributions

#### FALL 2016

This fall semester, I am a part of the subteam PreFabrication 1L/s. Our semester goal is to construct a 1L/s plant that has added improvements from the summer 1L/s plant. We hope to streamline production methods and create designs that will aid in the overall function and construction of the plant. Through this team, I want to be able to develop and improve machining and fabrication skills, become comfortable with MathCad, and have a clear understanding of water treatment plant designs.

Because of the nature of the team, I have been switching back and forth working on checking the geometry of the sed tank for cutting and preparing the fabrication for plate settlers. I have started to practice to weld as welding is important for the base plates of the sed tank and have worked on completing the jig for cutting the plate settlers. We have now split into two groups: one working on the base plates and the other working on plate settlers. From now, I will be focusing on the plate settlers.

I have mainly worked on plate settlers for the past month (and a little over). We cut all the sheets into their respective sizes and the spacers to 2.3 cm. We measured all 34 sheets and cut them twice- once with the shear using the jig that we made and another with the big shear and table saw. We created a small scale assembly of plate settlers and made sure that all 34 sheets fit into the sedimentation tank. The only thing left to do for plate settlers is to draw a centerline and drill the holes so we could fully assemble the sheets with the spacers.

#### SPRING 2017

This semester I am continuing work on the 1 L/s plant as a member of the 1 L/s Plant Testing Team. We are currently working to finish the construction of the plant and will build the flocculators to test their effectiveness. Throughout the semester, I worked constantly on water testing the 1 L/s plant and its welding. I welded the supports onto the base plates and water tested the bottom half first with the team. Then once it was water tight, we welded the full sedimentation tank together and water tested. I initially worked with Juan to build the entrance tank and welded the sides together. Then I worked with Sidney in working on the LFOM and understanding the calculations that went into it with Monroe.

I cut the spacers for the tapered flocculation system and helped assemble some of the baffle rods with "tacos."