

# thh44

## Tim Hui's Individual Contribution Page

### Spring 2012 Contributions

I worked with Muhammed Shakoor on designing a new way to make the Doser and the LFOM work more efficiently so that there would be a constant linear relationship between dose rate and flow rate, and so that the chemical coagulant would create good flocs on a consistent basis. I also helped to brainstorm and draw up different ideas for the overall plant design. For the doser part, we worked off of the designs and MathCad drawings that we had from last semester. Even though we did base much of our design off of the previous one, we actually changed and improved on many of the parts from before. We ended up scratching the idea of the LFOM because through numerous tests we discovered that it wasn't physically possible and moved to laminar flow tubes. We also needed to figure out convenient measuring devices for the amounts of clay and PAC we would need. I found two measuring devices that would be able to consistently get a rough estimate of what we need. We also redesigned the entrance tank and fabricated a working lever arm and float system that nicely kept the dose and flow rate linearly related. I helped to write the set-up for our part of the user manual.