

# st587

## Serena Takada's Individual Contribution Page



### Spring 2017 Contributions

This semester I co-authored the EPA P3 Competition Proposal for "Climate & Community Friendly Wastewater Treatment" and worked on the Upflow Anaerobic Sludge Blanket (UASB) Reactor Team. The UASB team tested the feasibility of the UASB reactor design detailed in the EPA proposal.

### Fall 2016 Contributions

This semester I am leading the overall team and advising the Milli-Sedimentation Team.

### Spring 2016 Contributions

This semester I am leading the overall team, advising the High Rate Sedimentation - Plate Settlers Team, and working on the Fabrication Team. For the Fabrication team, I will be developing a new design for a constant head tank that is easy to fabricate. This constant head tank will be designed to hold both chlorine and coagulant.

### Fall 2015 Contributions

This semester I advised the Chemical Safety Team and the Public Relations Team. As a Design Team member I updated the AguaClara Design Tool to draw an up-to-date Chemical Dose Control system.

### Spring 2015 Contributions

This semester I was Design Team Leader and adviser for the Small Scale Plant Model Team. I also worked on the Design Team and continued my work with the materials list. For the Small Scale Plant Model Team, I helped repaired the small scale plant model and developed designs for a new scaled model that is sturdier than the existing model.

### Fall 2014 Contributions

This semester was a part of the Design Team and the Small Scale Plant Model Team. For the Design Team, I reorganized the Mathcad script for the Sedimentation Tank making it easier to determine elevations, especially in the sludge drain and floc hopper. I also modified the design of the Sedimentation Tank to simplify the fabrication process. Also for the Design team, I worked towards creating a materials list using the AutoCAD blocking function. For the Small Scale Plant Model Team, I repaired the existing small scale plant model and worked towards creating a new sturdy travel size plant model.

### Summer 2014 Contributions

This summer was my first time working with AguaClara and the Design Team. First, I learned how to use the Automated Design Tool with the help of Meghan, the Design Team leader. Eventually, I updated the Automated Design Tool for it to reflect the recent modifications made to the designs of the Sedimentation Tank, Stacked Rapid Sand Filter, and Chemical Dose Controller.

### Current Subteam

Upflow Anaerobic Sludge Blanket  
(UASB) Reactor

### Past Subteams

Design, Small Scale Plant  
Model, Fabrication - Constant Head  
Tank

### Positions

Team Lead, Research Adviser, Design  
Team Leader