

# Countercurrent Stacked Floc Blanket Reactor, Fall 2016

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## Semester Schedule

### Task Map

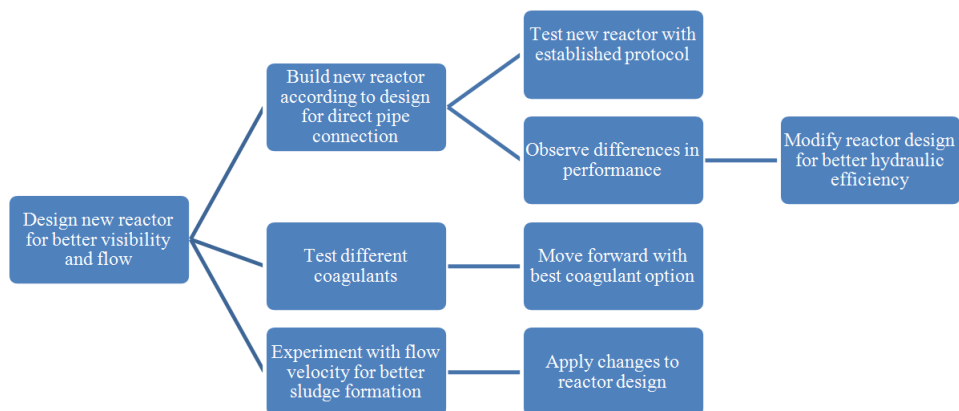


Figure 1: Task Map

### Task List

1. Develop a new reactor (9/14/16) - Felix Fu  
Use the basic shape of the old reactor but with clear tubing such that activity can be observed throughout the reactor. Go to machine shop to build the designed reactor.
2. Build flocculator (9/19/16) - Javier Espada  
Use the Mathcad code from the Fluoride team flocculator to calculate necessary radius and flexible tubing length to build desired flocculator.
3. Put together entire system (9/21/16) - Jacqueline Dokko  
Be in touch with former members to attain advice on putting together the system. Look to fluoride team's system as an example.

4. Test new reactors (9/30/16) - Felix Fu  
Upon building the entire system, begin running it to test for any leaks or other problems. Observe the behavior of the new reactors to compare to old reactor performance.
5. Modify system for better flow (10/5/16) - Javier Espada  
Identify characteristics of the reactor which could be improved and design a new reactor or other parts of the system. Said changes will be applied and tested.
6. Test different flow velocities (10/22/16) - Jacqueline Dokko  
Experiment with different reactor positioning to see how gravitational flow would affect the flow and sludge formation.
7. Experiment with different coagulants (11/30/16) - Felix Fu  
It has come to our attention that the current default coagulant (PACl) may not be the best for AguaClara's needs. Test different types of coagulants for better performance only after reactors have been redesigned.

**Report Proofreader:** Jacqueline Dokko