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Doctoral Proposal Defense by Anna Doloman | Biological Engineering

05/05/2016

- **Major Professor:** Dr. Charles Miller
- **When:** May 5, 2016
- **Time:** 1:00pm
- **Where:** ENGR 406

- [PDF Version](#)

Optimization of Biogas Production by use of Microbially Enhanced Inoculum

Research hypothesis:

Production of biogas can be enhanced through manual introduction and constant stimulation of key microbial consortia that are responsible for degradation of an organic waste of interest. Bacteria in sediments from Logan Lagoons have a hidden potential to degrade a wide variety of wastewater contaminants and can serve as a universal inoculum for anaerobic digestion and substrate-adaptation studies. To test the hypothesis, microbial consortia isolated from Logan Lagoons sediments will be analyzed for the specific hydrolytic or methane producing activity and tested for the capabilities to withstand preservation at varying conditions. Increase in production of biogas with addition of adapted or preserved defined microbial consortia will be statistically analyzed via comparison to the initial biogas production, when no altered microbial consortia is added.

Everyone is welcome to attend