

E90 Topic Selection Memo
Rebecca Burrow
Swarthmore College
Department of Engineering
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I will be doing a more in depth analysis of simple reinforced concrete for my E90 project advised by Professor Siddiqui. In order to explore the topic I will be competing in the American Concrete Institute (ACI) concrete beam competition. On the regional level, I will update the beam design of past years in order to better predict the beams behavior under load. I will also enter the National competition called the ACI FRP Composites Competition. This competition will take place at the ACI National Conference in Los Angeles, CA on the first weekend in April.

An important part of the project is the exploration of various types of reinforcing materials. For the first competition the reinforcement is steel; the material most often used in practice. In the National competition, the reinforcement may be a combination of FRP bars and fiber mesh, both provided by ACI. These materials are still being explored for their usefulness in structures.

Hopefully this project will allow me to explore more deeply some of the most important aspects of concrete construction. Hopefully, members of the Swarthmore ACSE chapter will aid me in the construction of the competition beams.