

## **Service Learning in CHE Senior Design**

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ABET 2000 criterion 3 explicitly states that engineering graduates must have “an understanding of professional and ethical responsibility”, “an ability to communicate effectively”, and “the broad education necessary to understand the impact of engineering solutions in a global and societal context.” Service learning is the approach we chose to enhance our students understanding of these issues. For the past two years, senior projects containing a significant service-learning component have been offered in the capstone senior design course at NCSU. They have worked with an economically disadvantaged community facing pollutant emissions resulting from a high concentration of local industries. Students characterized the pollutant problem and its sources, and provided the community with process-related information useful in their discussions with regulatory bodies. This presentation will summarize the challenges and strategies used in the design and implementation of a service-learning component in senior design.