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My involvement in the Piedmont Project Workshop has resulted in a drastic change in my approach to teaching the organic chemistry lab. In the past, I have avoided explaining how our wastes are handled and have never discussed "green" approaches to synthesis. I have now modified the organic laboratory curriculum to emphasize green chemical concepts such as recycling, hazard reduction, and solvent reduction which are important in modern organic synthesis. I will implement this change by requiring student teams to research the hazards for a particular laboratory experiment, to define the major wastes produced, and to explain how these wastes will be handled for disposal. I am further assigning eight reading assignments (four each semester) from sources ranging from Scientific American to the Emory Report. All of these articles involve green organic chemistry issues and have many sides (like the environmental issues presented at the workshop). The students will be required to read these articles at specified times during the course and respond to the readings on a class conference site.

I have also incorporated two "green" experiments developed by the Department of Chemistry at the University of Oregon where they are pioneering environmentally benign teaching experiments. One of the experiments I plan to incorporate introduces green concepts while teaching hands-on laboratory techniques. The other will be a revised synthetic method and we will compare it to the standard method based on % yield, efficiency, and wastes generated. The students will be required to write an out of class essay on the selection of environmentally responsible reactants and reaction conditions and their growing importance for part of their final exam.

My hope is for our students to become aware of the hazards of certain chemical processes over others, to be introduced to the environmental and economic advantages of a "green" approach to organic chemistry, and to come to an understanding of just how challenging many positive and innovative changes are to implement due to economic, social, and political factors.

Before I attended the workshop, I thought that I would introduce the topic of how waste is handled and discuss the wastes produced from every experiment and then incorporate the new "green" experiments. After attending the workshop I realized that the students should be in charge of generating the waste information and that they should be introduced to the complex concepts involved in sustainability as they pertain to organic chemistry in industry. I never would have incorporated the readings and the complexity of these issues into the lab if I had not attended the workshop. It was fundamental in my understanding of sustainability and has challenged me to work through these issues in my own field with my students.