

WELCOME TO THE SPRING 2005 CHEMISTRY-BASED OUTREACH PROJECT!

Introduction and How To Get Started

(Go to Dr. Brush's web page and follow the OutReach link for more detailed information after February 21st)

The Chemistry-Based OutReach Project was initiated in Spring 1999, and involves teams of Bridgewater State College students from all science disciplines traveling to local elementary, middle, and secondary schools (grades 3-12), performing chemistry demonstrations with the school students and classroom teachers in order to bring a greater appreciation of the role chemistry plays in our everyday lives. This is also an excellent Community Service/Service-Learning opportunity for all BSC students, especially those who are considering a career in science teaching. For those of you who are undecided about your post-graduate career, this project gives you the opportunity to try out teaching without any long-term commitments or strings attached. Be very sure that you want to do this before you sign-up. Although the OutReach project will replace two weeks of scheduled lab experiments in CH344 (Lab #5), you will be putting in more work than for a normal lab. However, I know for a fact that once you see the excited looks on the faces of the kids after producing "Elephant Toothpaste Foam", or igniting the "Methanol Cannon", that you will find this opportunity one of the most satisfying experiences of your college life. Over the past five years, *over 150* BSC students have participated in this project.

The OutReach Project will involve a limited number of BSC students.

Sign-up is on a first-come-first-serve basis.

Participation is mandatory for Honors organic lab students.

Sign-up Deadline: Wednesday, February 23rd. Team up with an OutReach partner(s), preferably someone in your lab section (does not need to be your lab partner). I would prefer teams of 2-4 students, with one student listed as the "contact person". You must notify Dr. Brush by the deadline date. Once you have made a commitment you can not change your mind! You must contact a school and make your own arrangements for the OutReach visit. You also need to provide your own transportation to the school you are visiting, so one of you must have a car. Decide which age group you want to make a presentation to (elementary, middle school, high school). You may want to do two presentations at the same school (required for groups of four), or you can have two classes combined. You can discuss that with the teacher you contact. It is also possible that two or more BSC teams will visit the same school, but go to different classes.

You may go ahead and start contacting any school you wish, or choose one from the list I will provide. **DO NOT WAIT UNTIL THE LAST MINUTE TO BEGIN CONTACTING SCHOOLS!** March 29 through May 6 is the best time to visit schools, but keep in mind the school vacation week, April 18-22. If you are contacting a school that is not on our list, you will probably get the school secretary, so explain why you are calling and be sure to ask to speak with a science teacher for the grade level you are interested in. Don't be surprised if they ask you questions about what you are doing and why; they are very sensitive about the safety of their students. Find out the teacher's name, and if they are not available when you call leave a number where you can be reached and your email address. Teachers are in school from 7:30 a.m.- 4:00 p.m. They will call you either during a break or in the evening.

When you are called back, explain to the teacher that you are BSC students and are doing a Chemistry OutReach project as part of your chemistry class. The BSC faculty in charge of the program is Dr. Ed Brush, (508) 531-2116; ebrush@bridgew.edu. You must ask the teacher if a "CORI" form is required! Tell the teacher that CORI background checks should not be necessary as the classroom teacher must be present at all

times during the OutReach presentation. Arrange a date, time, and meeting place for your visit. Ask how many students are in the class, the grade level, and if electrical outlets are available in the classroom. Give yourself about 15-20 minutes to set up and about 30-40 minutes to run your demos. Leave at least 15 minutes between class presentations, if you are doing more than one. Get directions to the school, and ask about parking. **Get the mailing address, email address and direct phone number of the teacher.** Tell the teacher that Dr. Brush will send a letter or email confirming the presentation.

School Information Deadline: Friday, April 1st. You must complete a School Visit Information Form (on OutReach web page) and return to Dr. Brush by this date. Dr. Brush will send a confirmation letter to the teacher and give you a copy.

Preparation Time: Weeks of February 28-March 4 and March 21-25. You and your OutReach partner(s) should choose 3-4 demonstrations from the list I will provide, and practice these during at least two lab sessions (this replaces Lab #5). Familiarize yourself with the chemistry and the manipulations for a smooth performance, and prepare a “presentation” or “skit”. If you need more time to prepare your demonstrations, I will open the lab for you during the week. You may feel free to suggest your own demonstration experiment, but my approval is required before you practice or perform it yourself. I will ask each team to prepare a detailed write-up for one of the demos, including presentation details.

I FULLY EXPECT THAT ALL STUDENTS WILL FOLLOW ESTABLISHED LAB SAFETY RULES AT ALL TIMES. ANY UNAUTHORIZED EXPERIMENTATION, FAILURE TO FOLLOW DIRECTIONS, OR REMOVAL OF ANY OUTREACH EQUIPMENT OR CHEMICALS WITHOUT MY PERMISSION WILL RESULT IN AN F COURSE GRADE.

Remember that you will be representing Bridgewater State College during your OutReach presentation.

2-3 Days before your presentation: Call or email the teacher to confirm time and meeting place. Prepare your demo kit with everything you need (don't forget waste bottles and eye goggles), and **PLACE YOUR NAME ON IT!** I strongly suggest that you make a checklist. I will also provide you with a handout for the classroom teacher, which includes an evaluation form of the program. On the day of your presentation, stop by the lab early to pick up all the material you will need. Bring all supplies and chemicals back to BSC; do not dispose of anything at the school you visit. **Be sure to bring waste bottles, and to dispose of waste properly at BSC, clean and return glassware, and replenish any used reagents.** Failure to clean-up will result in a severe point deduction. During your demo make sure that the students are sitting at least 4-5 feet back from table.

Wear safety goggles at all times!!!

Friday, May 6th. Complete the report form provided by Dr. Brush describing your experiences.