Curriculum changes make chemistry fun

Freshman Pete Alfano is seen here displaying his “Superball.”

by Dave Leone
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What do college students and Silly-Putty have in common? At Canisius, both can be found in freshman chemistry lab.

In response to a national trend showing a steady decrease in the number of students who are majoring in the sciences, the Canisius chemistry department has begun a major revision of the freshman chemistry curriculum.

Students will now be performing such experiments as: Organic Carbon Polymer Chemistry — where students get to create substances such as Superballs, slime and Play-Doh.

The new format allows the students to perform various experiments in the labs before they are lectured about it in class. This is in contrast to what Professor Joseph F. Bieron refers to as “cookbook” approach, where the lab is used simply as a way to reiterate what was taught in the lecture.

“We’ve thrown our notes away and are starting from scratch,” said Dr. Peter Schaber, chair of the chemistry department.

The revision was made possible through a grant from the National Science Foundation (NSF). Every year, the NSF allots grant monies to various schools throughout the nation. This year Canisius received approximately $130,000, one of the largest amounts the NSF awards.

“We’re probably in the upper 25 percent as far as dollar amounts [grants] are concerned,” said Schaber.

“We’re one of the leaders in developing chemistry” said Bieron, explaining why Canisius was given such a large grant.

According to Schaber, this money will be used to totally change the way lectures are taught and labs are presented. In the lab almost every experiment has been changed from what Bieron refers to as “a lab that’s just a drill” to something the students can relate to.

In the past, the department has only been able to retain about two-fifths of the students who originally enroll as chemistry majors after their first year. The change in curriculum is hoped to reduce the attrition rate.

The new curriculum focuses on the practical, but now students can also enjoy their work.

“It’s fun,” commented Lisa Burnett after finishing the “Superball” lab. While students usually seem eager to clear out when labs are finished, Burnett seemed unwilling to leave with her lab partner.

“First we have to play with it for a while,” she said.