

From the Beacon News

Fermilab program for teens too good to pass up

[Comments](#)

January 8, 2010

Tomorrow a new session begins for the Saturday Morning Physics program at Fermi National Accelerator Laboratory (Fermilab) on Kirk Road in Batavia. If you have children and have never heard of this program before, take note, because this is one of the coolest things your kids can do with nine Saturdays while they're in high school.

For three nine-week sessions per year, from 9 a.m. to noon each Saturday, area high school students are given tours of the facilities, hear lectures by world-class scientists, and learn about everything from quantum mechanics to particle physics to cosmology. The title of one lecture in the series is: "Theory of Everything." Week after week this past fall, my own kids got into the car to drive home from Fermilab and couldn't talk fast enough about what they had learned. Another West Aurora student, Drew Burkhalter, told me the program "was effective in conveying difficult topics to students." He said, "I also liked it because it was more laid back than a classroom and that made it easier to learn."

Steve Stern, a physics teacher at West High, described having Fermilab nearby as "akin to an avid baseball fan living down the street from the baseball Hall of Fame -- it's a world-class facility that happens to be situated in our backyard." When I asked how the program affected students in his class, he answered, "I can't tell you how many times my Monday classes start with some excited SMP attendee asking if it's true that there's a huge percentage of the universe that we know must be there but that we haven't been able to detect -- or if I knew how Fermilab employs liquid helium to facilitate 'atom smashing.'"

The program was begun about 30 years ago by Leon Lederman and Drasko Jovanovic. It was an immediate success. It is now directed by Roger Dixon and Erik Ramberg. Dixon, an experimental high-energy physicist at Fermilab explained, "The primary goal of Saturday Morning Physics is to kindle an interest in physics by introducing the students to the scientific process, some basic physics, and some of the big questions concerning the nature of the universe that we are investigating at Fermilab. The program is geared to juniors and seniors in high school who are simply interested in learning something about our science."

When Dixon gave a presentation to parents at the end of last session, I asked whether students from the program ever come back as scientists and he said, "Yes, absolutely. Naturally we do have a number of former students working in the field, and some of them are working at Fermilab in important positions." But he noted that he also runs into alumni of the program who have not become scientists, and they also rave about their experience at Fermilab. "Our basic premise," Dixon said, "is that knowing about science is good for everyone no matter what career plans a student might hold. In fact, most of our students do not end up with careers in science, but we want them all to leave with a deep appreciation of our field."

You can learn more about the program at smf.fnal.gov , and sign up for it there. There is still space in the current session and even more space in the spring session, which begins March 13. Suzanne Weber, conference events coordinator for Fermilab, told me they'd even register walk-ins tomorrow (and I hope they don't come to regret that offer). You can contact her with any questions at 630-840-3177.

This program," Stern said, "and others like it are why Americans exhibit an outstanding post-high school scientific literacy in comparison to the rest of the world." So check out his great opportunity that's right in your own backyard. And here's the part you weren't expecting -- it's free.

deenasherman@att.net

I Should Have Paid Attention During High School Physics!

From Just A Thought