



CAL POLY CHOCOLATES

CREATING A SWEET EDUCATIONAL EXPERIENCE

BY MATT LAZIER

(R) Payden Bennett, Sheena Merani and Amanda Knudson in the Cal Poly "chocolate lab."

IF WILLY WONKA CAME TO CAL POLY, this is where he would hang his hat.

Against the wall, tempering machine wheels whirl and spin various colors of velvety melted chocolate. Nearby, two student employees in hairnets and gloves tap newly dipped cashew caramels softly against the sides of bowls, coaxing air bubbles out of the chocolate coating.

Across the room, a third student bends plastic molds to free dozens of recently cooled chocolate hearts and bittersweet bars.

By 6 p.m., the half-dozen employees in the noisy kitchen will have produced hundreds of chocolate treats by hand – no Wonka Bars but plenty of milk chocolate, bittersweet, peanut butter crunch and peppermint crunch bars, butterscotch s'mores, cashew caramels, peanut-butter cups and chocolate-covered macadamia nut.

"It's complicated, because everything is done by hand" said Amanda Knudson, a nutrition major who serves as the program's student manager. "But it's an incredible opportunity. I was able to get a scholarship because of my work here."

Both a learning opportunity and a small business, Cal Poly Chocolates teaches students the particulars of chocolate making – from production of the goodies to packaging and distribution. It also teaches them general food services and production skills that can be applied to a wide variety of culinary professions. Some former employees and students have gone on to culinary management jobs for companies such as Ghirardelli Chocolate and San Luis Sourdough.

Cal Poly's course is the only one in the United States in which undergraduate students produce chocolate, said Tom Neuhaus, the Cal Poly food science and nutrition professor who launched Cal Poly Chocolates in April 2000.

The treats, in wrappers and boxes bearing the iconic aerial view of Cal Poly, are available at the Campus Market and at some San Luis Obispo retailers, such as Apple Farm and the Crushed Grape. And campus departments and offices often buy chocolates for fundraisers or gifts. The students sometimes use special molds for these treats, such as chocolate gear wheels for the College of Engineering.



Neuhaus started the enterprise shortly after he arrived at Cal Poly from Cornell University, where he earned his doctorate degree and taught. He was attracted to Cal Poly's learn-by-doing philosophy.

STUDENTS LEARN ABOUT THEORIES OF CHOCOLATE-MAKING SCIENCE, AS WELL AS THE HISTORY OF THE SWEET STUFF

"I wanted to be where you could start classes in which the students actually do things," he said. "I wanted to give students the chance to try things and to mess up. When you mess up,

you never forget that. You learn.”

The program has grown. Neuhaus recalls initially teaching students how to make chocolate by microwaving it in bowls and stirring with wooden spoons. Annual sales were about \$10,000 a year then, compared to about \$30,000 now.

At first, Neuhaus said, the operation was too ambitious and students were like kids in a candy store. “We were dipping all kinds of stuff into chocolate – too much stuff,” he said. “And we had too many different labels. We didn’t have the labor to keep up.”

They streamlined their products and settled on packaging, gaining efficiency and helping to cut costs. Neuhaus also switched from \$5-per-pound Swiss chocolate to fair-trade chocolate he said “costs half as much and tastes better.”

Four or five years ago the operation took a step forward when it bought three tempering machines, which rotate and drag the molten chocolate through the air – stimulating production of beta crystals that make the chocolate shiny when it sets.



Around the same time, Neuhaus added two chocolates classes to the enterprise. Students learn about theories of chocolate-making science, as well as the history of the sweet stuff. They also work in the kitchen making chocolate, alongside the student employees.

Both Cal Poly Chocolates and the associated classes attract a variety of students – not just nutrition or food science majors – including chocophiles from business and engineering.

The staff fluctuates from half a dozen to as many as 16 students with the most robust times around the holidays, when demand for the chocolates hits its annual high point.

Despite America’s collective sweet tooth, Neuhaus thinks Cal Poly Chocolates has peaked. The program isn’t likely to grow without additional products or an increase in production, which would require additional machines to automate the process.

Neuhaus hopes Cal Poly and other schools with chocolate programs can attract a fortune in fudge, or at least more attention from the chocolate industry.

“It’s a \$13-billion-per-year industry,” he said. “But I don’t think academic programs in chocolate get the same investment from their industry as do other programs. I’d like to see that change.”

Maybe with a golden ticket from a Paraguayan millionaire? □



(L) Amanda Knudson and Corey Fujioka enjoy the benefits of the Cal Poly chocolate class.