As the clock strikes four o’clock, Dr. Raul Martin flicks off the lights and positions the projector, signaling the start of his upper level Global Change class. He reminds his students that class is not meeting on Thursday since he will be taking his other class on a field trip to study volcanoes in the Canary Islands. Martin then quickly summarizes what he will be going over class today and reminds his students to start working on their paper.

“Pay attention because I’m going to review over the ozone layer and the ocean hole,” says Martin in his strong Spanish accent. “Ready?” Martin then delves into his lecture, starting by drawing on the board while writing out an equation about oxygen and water.

“We are abusing the ocean, why? Because we are going like crazy remember?” He asks students to give examples of what actions have released harmful toxins into the environment.

Going back to the board, Martin says, “This chlorine is really like a PacMan. Pac pac pac.” He proceeds to draw a PacMan eating ozone molecules. Only about ten minutes into the class, it’s easy to see the high energy involved in Martin’s teaching style. A professor at St. Louis University Madrid’s campus for almost nine years now, Martin is known among students to be a passionate science teacher who takes students to see volcanoes and does other “cool” scientific work outside the classroom.

Martin went to school in London and Norway, and, for his PhD in physical geography, studied in the high mountains of the Arctic to measure how the glaciers were retreating. While he was still working on his PhD, Martin started teaching about volcanoes at SLU Madrid. “I actually had a friend teaching here and they asked him if they knew someone else since he was leaving. It worked out for me to teach while I was a student. Before I knew it I was teaching another and another class and now here I am.”

In addition to teaching, Martin performs extensive research outside of the classroom. He is currently a part of three different research projects for the Spanish government, taking helicopters to the mountains, visiting glaciers, and publishing articles. Martin explains that the all three projects are related to each other and involve monitoring the Sierra Mountains in the northern part of Spain to see how they have been affected by global warming. “I’m learning more, so I’m teaching more in my classes,” says Martin of his continuing research. “As I was saying in class, things keep constantly changing.”

This month he took 35 to 40 students on his volcano trip for the ninth time. Having specialized in volcanoes during his studies as a grad student, Martin thought it would be appropriate to take his students to actually see volcanoes themselves as well. “It is the best way to learn I think,” he says. “Students pay more attention after the trip and have more motivation. They see that these things are real.”

Martin’s famous volcano trip consists of visiting the Timanfaya National Park in the Canary Islands. At the national park, Dr. Martin and his students climb the Caldera Blanca, which is a dormant volcano that erupted in 1730. Martin explains that this eruption was so big that the lava flow reached the ocean, making the island bigger. Since the island is so dry, no erosion has occurred in the last 300 years. “So it’s like visiting a museum,” says Martin. Various parts of the ground are covered with lava flow, which is
so hard it feels as if you are walking on rock. Because of the geothermal heat, certain areas of the earth are hot beneath your feet. “If you touch the ground, you can feel the heat,” Martin says. “In some parts, you can’t keep the sand in your hand it’s so hot.”

At the top of Caldera Blanca, the volcano opens up into a huge crater that is one kilometer in diameter. Martin shows me pictures of his students walking along the crater, looking like dotted ants in comparison. Interestingly, the eruption of 1730 benefitted the island people, Martin tells me. All around the volcano are vineyards. But rather than in rows, the vineyards are multiple holes in the ground with half-cylindrical walls guarding each plant from the wind. The ash rocks from the volcano became the perfect soil since they can capture humidity. Martin shows me a picture of little rocks with tiny cavernous holes, explaining the process of how the rocks collect water. “It’s unique,” he says. Indeed it is.

A student of his Volcanoes of Spain class, Timi Bento returns from the trip with lots to say. “It was the best experience of my life,” she says. “But really, I’ve never been this hyper. I climbed a volcano and it was so amazing.” Timi explains that there were two days that the class went hiking, each day bringing more discoveries. “He was right when he said it was like being on a different planet,” she says of the national park. “It was like being on the moon! Or Mars! I was constantly amazed.”

But not all field trips go as planned of course. Alexandra Romer, who took Dr. Martin’s environmental science class last summer, was supposed to go on a field trip to the Sierra de Guadarrama. Unfortunately the trip had to be canceled last minute due to an injury Martin received from falling off a mountain. “A week before the trip he came to class limping and with his arm in a sling, poor thing,” says Alexandra. According to Martin he was training for a mountain running marathon. “Here they are really popular!” Martin claims.

“Dr. Martin is the kind of teacher who thinks everyone else is as passionate of his subject as his is,” says Kate Kruse, who took his class on atmospheric science. “He’s not the kind of teacher that doesn’t finish a lesson and says, ‘Oh, we’ll finish this lesson tomorrow.’ Instead he’ll say, ‘Five minutes guys!’” But Martin gets the cool teacher stamp from Kate. “He’s cool because he wears converse, t-shirts, and weird chokers and he has a ponytail so that’s hot.” She admits she has a little crush on him. “Everyone thinks it’s really cute that he tries to cover up his bald spot with his ponytail but we give him brownie points because he tries.”

Martin is indeed young for a teacher and his dress somewhat reflects that, but that doesn’t take away from the way he is able to command a classroom. “He earns his respect with his behavior,” says Timi. “He captures your attention constantly even when you’re tired. I always pay attention in his class while in other classes I’m dying.”

“He is actually really excited when he talks in class,” says Alexandra. “His eyes sparkle when he teaches.” Similar to his active lifestyle, Martin runs back and forth from the board to the front of the classroom. Demonstrating equal attentiveness to his powerpoint and his pupils in front of him, Martin takes each student’s question or response with eyebrows raised and hands on his hips. “I’m not into science but I loved his class,” says Alexandra. “I was pleasantly surprised.”

Martin ends class for the day with an interesting show and tell piece. He takes out a mini plastic bag with a hair of a mammoth inside to pass around the classroom. “Now you’re going to have to trust me because for all you know it could be from my dog.”