

The Joy of Cooking

Molecular gastronomy day showcases the science of cooking, with a twist.



(l-r): Morgan Smith '14; Dr. Susan Meschwitz, assistant professor of chemistry; and Lindsey Coates '14 hold up a tray of deconstructed buffalo wings with gelatinized buffalo sauce. "It's like Jell-O, with a kick," said Nathan Misbach '17.

gus, fried mushrooms and rice. For dessert, students enjoyed buttered popcorn sundaes sprinkled with crushed M & Ms and Nutella powder made with liquid nitrogen. Another dessert station offered up angel food cupcakes topped with flash-frozen and smashed raspberries and strawberries.

The homemade popcorn ice cream station drew a crowd of curious onlookers, who watched as two chefs prepared a fresh batch in a mixing bowl while vapor poured out of a 5-foot high tank of liquid nitrogen.

"We can't hand out enough of this ice cream," said Sodexo chef Bill Walker, who served about 300 cups of the salty sweet stuff in just over an hour. "We're making a new batch now."

Wearing oversized fireproof blue gloves and protective face shields, Walker and sous chef Heather Freeman looked more like steel smelters than pastry chefs.

"This is made just like crème en glace, with egg yolks, heavy cream, vanilla extract and sugar, except it has an added twist – pureed popcorn," Walker explained.

Squinting under his protective face shield, Walker furiously whisked the liquid nitrogen – which boils at subzero temperatures of minus 320 degrees Fahrenheit – as Freeman poured the smoldering frozen liquid into the egg-yolk mixture.

"Ta-da!" Walker added with a flourish when the ice cream thickened enough to serve. "This might seem weird, but just think about how popular salted

Donning white Albert Einstein wigs, Miley Cafeteria servers deliberately went for the wild and crazy mad-scientist look on Thursday, March 6, when the newly renovated dining hall was transformed into a culinary arts chemistry lab.

Beakers bubbling with orange and purple H₂O greeted students at the door as they swiped in for lunch, and models of molecules for glucose, caffeine and cinnamon were on display at food stations.

Along with the usual choices of hamburgers, French fries, pizzas and salads, diners had the chance to sample appetizers such as chopped salad with balsamic dressing pearls, deconstructed boneless chicken wings and spicy gelatinized buffalo sauce.

For the main course, Espuma culinary-infused foam – called vanilla saffron crème sauce to tempt timid diners – was served over grilled chicken, aspara-

caramel ice cream is. It used to be all the rage in fancy restaurants; but now you can find it everywhere.”

“This is weird,” said President Jane Gerety, RSM, who recommended the ice cream to the more cautious types. “But it’s good.”

“I love it,” said marketing major Robert Lippincott ’14, who added crushed M & M’s and powdered Nutella to his ice cream. “But I have 32 sweet teeth.”

“Don’t leave without trying the deconstructed buffalo wings with gelatinized buffalo sauce,” urged Sodexo’s Scott Bushnell. Served in clear plastic cups that resembled oyster shells, the buffalo wing appetizers drew a small crowd that included nursing majors Samuel Haddy ’15 and Nathan Misbach ’17.

“It’s like Jell-O, with a kick,” said Misbach, commenting on the consistency and flavor of the sauce.

“This is a good way to help people eat healthier,” Haddy gulped after discovering the sauce was made from seaweed extract and asparagus.

Brittany Paiva ’14 agreed. “It’s very good and healthy,” she said. “Those are two things I am very passionate about. I’m a big nutrition advocate.”

“A science lunch?” remarked network administrator Aisa Burke. “This is great!”

After being told the mildly spicy buffalo sauce was made with agar, a thickening agent used in medicine to freeze off things like warts, Spanish major Karli Nunez ’14 took a bite.

“Oh, cool,” Nunez said. “It’s got a weird texture, but I really like the presentation. I used to be an art major, so I can really appreciate this. I’ve given up sweets for Lent, so I won’t be trying the popcorn ice cream, but this is great.”

“This is decadent,” said English major Brianna Cain ’15, who was joined at the science salad bar by her roommate, English communications major Ciara Speller ’15. “I really enjoy the zest.”

“I like it,” Speller added, after sampling the salad garnished with balsamic pearls – blueberries and raspberries that resembled caviar – frozen in liquid nitrogen and smashed with a mallet.

Some of the more picky eaters enjoyed the cafeteria’s traditional fare – brick-oven pizza, burgers and fries – or opted for the Mongolian grill, which serves up grilled vegetables, steak, chicken and seafood on



Chelsea Beaulieu '14 tries the vanilla saffron foam with her chicken and rice pilaf.

noodles.

“I can’t serve the pizza fast enough,” Sodexo’s Anne Nutter said.

Opting for only rice at the popular vegetarian station, elementary education major Alexia Mazzotta ’17 was persuaded to try the vanilla saffron crême sauce, served out of what resembled an oversized whipped-cream container. “It’s interesting,” she added. “Foamy.”

The lively experiment was designed to show students that chemistry is an important part of everyday life by offering a menu based on the principles of molecular gastronomy.

For culinary purposes, molecular gastronomy uses chemical and physical ingredients that occur naturally in the cooking process. The “chemicals”

are actually food-safe compounds, most of which are derived from seaweed, protein and plant byproducts.

“This was an opportunity for Sodexo and our partners to celebrate culinary innovation and talent,” said Mark Rodrigues, general manager of Sodexo Campus Services. “We’re continually developing programs and techniques to bring excitement and innovation to student dining.”

The Department of Chemistry donated beakers, flasks and test tubes to embellish the food preparation and presentation. Science majors were eager to climb on board because the event helped them draw attention to their newly formed Chemistry Club. “This is a good opportunity to make students aware that chemistry can be fun; it’s real life and it’s all around you,” said Dr. Susan Meschwitz, assistant professor of chemistry. “I mean, here you are in the cafeteria and there’s chemistry everywhere. Students will never think about food the same way again.”

“Not everyone notices the importance of chemistry,” added chemistry major Morgan Smith ’14. “When it’s kind of in their faces, as it is today, they realize it’s an important thing to study.”

– Deborah E. Herz ’80, ’92 (M)

Editor’s Note: Matthias Boxler ’04 (M) and Newport Daily News staff writer James A. Johnson contributed to this story. Watch chemistry meet the joy of cooking at <http://youtu.be/afvaeBqLLdk>.

