

¡Hola! from Santander

BY SHERRIE NEGREA

Cornell Engineering and Universidad de Cantabria create model exchange program.



S.S. DE INGENIEROS DE CAMINOS, CANALES Y PUEBLOS



Students from Cornell and Cantabria stand with faculty from Cantabria in front of the university's civil engineering building in Santander, Spain: (from l. to r., back row): Alvaro Martínez, Eladio López, Alvaro Sanz, Jennifer Williamson '09 CE, Zaheer Tajani '09 CE, and Juan Suárez; (middle row) María Maza, Christina Gaité, Javier Vilam, Pablo Higuera, Carli Flynn '09 EnvE; Pedro Serrano (Director of the School of Civil Engineering, University of Cantabria); Jose A. Laso (Subdirector for International Relations, University of Cantabria); (front row) Yamilet Echeverría '09 CE, Jose A. Revilla (former Director School of Civil Engineering, University of Cantabria), University Rector Federico Gutiérrez-Solana, Angel Agudo (Economic Minister of the Autonomous Community of Cantabria), Jessica Oribabor '09 CE, Haley Vihman '09 CE, and Heather Hunter '09 EnvE.

WHEN ZAHEER TAJANI '09 CE WAS HIRED AT S.S. PAPADOPULOS & ASSOCIATES, INC., a water-resource and environmental consulting firm in Bethesda, Md., three months after graduating, he did not expect he would use his ability to speak Spanish on the job. Yet beginning with his interview, he was asked about his year abroad studying engineering at the Universidad de Cantabria in Spain. And months later, he found himself speaking to contractors in Spanish and translating documents into English.

"Employers are much more inclined to hire someone who's had international education and language skills," says Tajani, who also did an internship at a company in the Canary Islands as part of his exchange program experience. "I think that my experience abroad highlighted the fact that I was someone who could work under pressure."

In September of 2007, Tajani arrived in Santander, a scenic city on the northern coast of Spain, as part of a contingent of Cornell Engineering students to inaugurate an international exchange program with the Universidad de Cantabria. For the next three weeks, he and seven other Cornell juniors honed their language skills in a Spanish immersion course while living with host families before beginning two semesters of coursework, taught predominantly in English. A year later, eight Cantabrian students who had been paired with the Cornell juniors embarked on two semesters in Ithaca, taking classes and living a college life much different from their Spanish university experiences.

While the college offers exchange programs in Hong Kong and France, what makes the partnership with Cantabria unique is its curriculum: the courses offered in Spain were designed specifically to meet the third-year engineering requirements at Cornell. Because



Heather Hunter '09 EnvE and others in the program listen to a lecture at the University of Cantabria.

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MEGAN ROTONDO '11 CE

it provides a guarantee of matching classes while affording a true cultural exchange, the program won a 2011 Heiskell Award Honorable Mention for Best Practices in International Partnerships from the Institute of International Education in March. It is the first international program at Cornell to win the award. “It is an excellent model for partnerships,” says Shannon Harrison, assistant director of higher education services at the Washington-based institute. “It was a win-win, meaning that both sides got something out of the partnership.”

FOR MEGAN GRAY '11 CE, SPENDING HER JUNIOR YEAR at Cantabria literally expanded her horizons since the farthest she had ever traveled from Ithaca, where she grew up, was Toronto. In the exchange program, not only did she visit construction sites around Spain, observing how tunnels and bridges were being built, but she was also able to attend Midnight Mass on Christmas Eve at the Vatican and celebrate New Year’s at the Eiffel Tower.

“It made other cultures seem a lot closer,” says Gray, who will start a master’s degree in structural engineering and materials at Virginia Tech next fall. “In the U.S., I feel like it’s so big that you can get kind of consumed in your own world and think that things are really far away from you and not relatable. But going over there, I met people from all different countries and had discussions with them. So it did open me up to different cultures.”

For Iñigo Salazar, a fourth-year student from Spain’s Basque country, spending the past year at Cornell also transformed his outlook. “I have discovered a new way of life that makes you consider what you’re going to do in your later years,” he says. After traveling throughout the United States, Salazar has decided that living and working outside of Spain is now a possibility for him, an option he had never considered before.

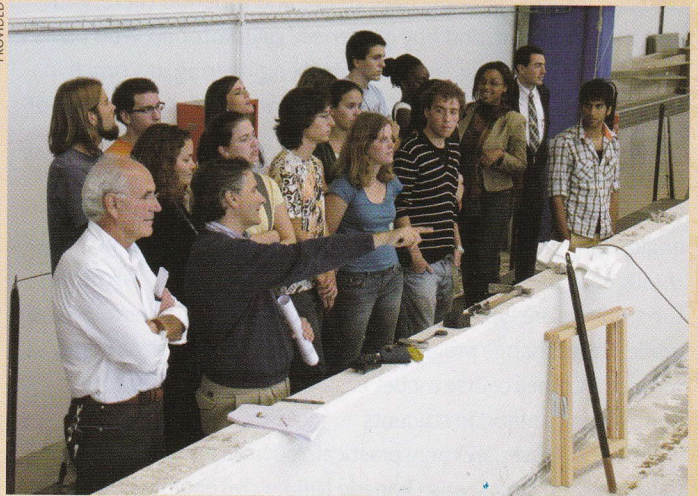
Although Cornell has offered study abroad programs for undergraduates since at least the 1950s, the development of such programs for engineering students has been slower. Not only do already busy engineering students have to find time to master a second language if they don’t already speak one, they must also find engineering courses abroad that match Cornell’s requirements.

“It’s very difficult to go abroad without losing time because the courses that you are taking here aren’t given in the other places,” says David Gries, former associate dean for undergraduate programs. “This always raises the issue of whether the courses

are equivalent and whether the students will learn what they need to.”

Such obstacles have prevented engineering colleges across the country from embracing international education until the last few decades. “I think engineering schools have been seeking to internationalize their students’ experience, but in terms of large-scale participation, it’s only recently that they have made this a priority,” says Peggy Blumenthal, senior counselor to the president of the Institute of International Education. “It’s challenging to fit a study-abroad experience in a fairly tight and sequenced curriculum. But increasingly, engineering schools are realizing that the careers

of their graduates are going to be global careers, so their students shouldn’t be disadvantaged when other students in the same institutions are getting study-abroad experience.”



Professor Iñigo Losada (pointing) gives a tour of his Ocean Engineering and Coasts Laboratory at the University of Cantabria.

THE CANTABRIA EXCHANGE PROGRAM EVOLVED FROM a collaboration between Edwin (Todd) A. Cowen, associate professor of civil and environmental engineering, and Iñigo J. Losada, a professor of hydraulic engineering at Cantabria, who had visited Cornell several times. In the summer of 2003 while Losada was visiting Cornell for six weeks, the two brainstormed an idea for an exchange program and hammered out the details a year later, while Cowen was on sabbatical at the University of Granada.

One of the reasons Cowen decided to take his first sabbatical in Spain was his hope that his two young children would become bilingual. Just as he wanted his children to learn Spanish, Cowen also believed engineering students should be exposed to the language and the culture. “If we think about important languages for American engineers, clearly Spanish is among the top,” he says. “It’s tied with English for the second most-spoken language in the world. Clearly, after English, it’s the most important language in the United States.”

Initially designed around the civil and environmental engineering curriculum, the exchange with Cantabria has always

been open to other majors and has attracted students from both biological and mechanical engineering. In 2009 two courses specifically targeted at mechanical engineering students were added and more engineering courses are being added in spring 2012. Students are required to have only a basic foundation in Spanish to apply to the program, either significant high school experience or completion of a year of Spanish at Cornell or the equivalent.

Megan Rotondo '11 CE had visited Spain after graduating from high school in Rhode Island and had taken two Spanish courses at Cornell. But she enrolled in the exchange program because she wanted to have the experience of living in Spain and of being able to practice her language skills.

"I wanted to know what it was like to live outside of the United States, because you can't really tell what it's like to live in a country until you actually have to live and function there, and rent an apartment, and buy groceries," says Rotondo, who plans to complete an M.Eng. in mechanical engineering at Cornell in the fall. "Just vacationing in Spain, you can't really get the feel of living in a country."

One main difference between the two universities that students from both schools discovered was the teaching styles used in the engineering classes. At Cornell, the students are assigned homework throughout their classes, while at Cantabria, in traditional courses the students are typically given only a final exam to determine their grade. The exchange program classes taught in Cantabria follow more of a Cornell course model, easing the transition for both Cornell and Cantabrian students.

"Here the classes are more practical. You have homework and you have projects," says Sergio Granado Niño, a civil engineering student from La Rioja, Spain, who spent the past year at Cornell. "I like this system more, because I think I learned more."

IN HIS CONCRETE CLASS LAST SPRING, FOR EXAMPLE, NIÑO met two students who were members of Cornell's Concrete Canoe Team, which built a floatable craft out of lightweight concrete. Niño traveled with the 15-member team to a race in Montreal in April, and the team won part of the competition. "It was a great experience," Niño says, "because we don't have those kinds of teams in Spain."

Students in the College of Engineering have participated in exchange programs at the École Centrale in Paris and Hong Kong University of Science and Technology. Yet the partnership with Cantabria has become the most popular since it was established four years ago, says Cowen, primarily because the curriculum is

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MELISSA HUTSON BAZLEY

ASSISTANT DIRECTOR OF ENGINEERING ADVISING

designed for the Cornell students and Spanish language mastery is not a prerequisite.

"I wish we had more programs like it," says Melissa Hutson Bazley, assistant director of Engineering Advising. "The way we would get more students abroad is to have programs tailored to their curriculum."

Recognizing the value of study abroad, the college is expanding the number of international programs offered to undergraduates. It is now working on a new study abroad summer program at Peking University in Beijing, in which students from six top-ranked American engineering schools will take courses taught in English by faculty members from the participating institutions.

"Engineers, more than people in many other professions, are going to work in a global environment," says Bazley. "It might mean working with supply chains that wrap all around the world. It might mean that even if they don't leave the United States, they are still going to be working with people from other countries because engineering is such a diverse profession. So I really think that students should develop the cultural complexities they need to work in an environment like that." **CEM**

PROVIDED



Colorful boats adorn the harbor at Castro Urdiales, Cantabria, about 20 miles east of Santander.

Read about the experiences of Cornell Engineering students in Spain at the *Hola from Cantabria* blog: blogs.cornell.edu/cantabria/

