



# Women Making Their Marks

Four women—  
former  
international  
students—  
tell their stories  
of education  
abroad that  
helped them  
on their way  
to successful  
careers.

BY DANA WILKIE

## Nesreen Ghaddar

Chair  
Department of Mechanical Engineering  
Lebanon

**W**HEN the premier engineering university in the United States—the Massachusetts Institute of Technology—offered Lebanon’s Nesreen Ghaddar a scholarship in 1980 to pursue her master’s in mechanical engineering, her father insisted that she abandon the idea.

She was the first woman in her father’s conservative, extended family—not to mention the first from his home town—to consider studying abroad while unmarried, and without companions. He feared U.S. customs would change her, and that she’d forget her country’s values.

Over time, her father’s stance softened and Ghaddar eventually went on to become an associate provost at the American University of Beirut, the school’s Qatar chair of energy studies and one of 2013’s “100 most powerful Arab women,” according to *Arabian Business*, a Dubai-based weekly magazine.

“To have a chance to study in the best engineering school in the world is not something that comes twice in life,” said Ghaddar, who earned her PhD in mechanical engineering from MIT.

The path that took Ghaddar from her large Lebanese family (she has eight siblings) to become a pioneer in the field of energy systems was challenging, often requiring her to leave behind three young children for months at a time so she could pursue faculty development and research programs that would further her career.

Born in Kuwait and educated in Arabic, Ghaddar was always a self-starter. In 1980, she earned her bachelor’s in mechanical engineering from Kuwait University, graduating with the highest GPA in her class. Her university project

adviser encouraged her to apply to U.S. universities for graduate work and recommended several institutions, including MIT. It would, he confessed to her, be tough to get accepted at the premier U.S. institution.

Her father’s initial refusal to support her post-graduate plans didn’t deter Ghaddar; she signed

up for the required entrance exams, boned up for the TOEFL and GRE, started filling out applications, then learned that the Kuwait Foundation for the Advancement of Science was offering scholarships to Arab students to study abroad. She applied, and in the spring of 1980, learned she had landed a scholarship to MIT.

“I informed my father, and my adviser spoke to him, and [my father] said he would not stop my dream and would support me,” Ghaddar recalls. “He turned 180 degrees and helped me every step to prepare for the travel and to arrange for my stay when I first arrived to Boston in August 1980.”

Ghaddar recalls her time at MIT as one of the most intense and exhilarating of her life. One of only a handful of women in the school’s engineering program, she earned her master’s in 1982, then her PhD in mechanical engineering in 1985. “I spent my last year in the PhD program—sleepless, working day and night—to get results,” she said. “I finished my PhD in three years.”

### **A Bright Future**

With her doctorate in hand, Ghaddar returned to Lebanon to start a family with her husband, a Kuwaiti engineer.

Her first academic appointment was in 1985, as an assistant professor at Kuwait University. Her second was in 1991 to the American University, where she quickly learned that win-





**Nesreen Ghaddar with one of her students in the Energy Lab at the American University of Beirut while he explains his project to colleagues from the Lebanese American University and Lund University.**

ning research resources wouldn't be easy. The year 1992 marked the end of Lebanon's civil war, and funding for university programs was scant and competitive.

"I was using high-speed computers to run simulations at MIT, but such facilities came late to [American University], in the mid- to late-1990s," she recalls. "I had to travel and think innovatively to continue publishing."

Traveling was necessary not only to promote her research, but also to participate in development programs, and that sometimes meant family sacrifices.

When she took a long-term faculty development opportunity at Technische Universität Berlin in 1993, she left her 11-month-old daughter and 5-year-old son with their father for two months.

When she embarked on a similar development program at MIT in 1995, her husband stayed behind in Lebanon and Ghaddar took their three children with her; she put the kids in daycare while she attended classes and took them with her in the evenings to her brother's Boston-area home.

And when she visited Carnegie Mellon University in 1996 for a month-long program on environmental modeling and standards, she again left the children with her husband.

### **Chairwoman Challenges**

She was the first woman to take the chair of American University of Beirut's mechanical engineering department—which she won a decade after arriving at AU—and with "firsts" come challenges.

"The issues had to do with gender," she concedes, "not in my department—but [among] the engineering faculty at large."

While Ghaddar won't provide details on the "gender" issues she encountered, she will say that some men challenged her authority and leadership.

"How do you think other [leaders in the engineering department responded] to having a female ahead of them?" Ghaddar asks.

Most young professionals aren't trained how to handle such behavior, Ghaddar points out, so she had to feel her way. She learned: to be thoroughly prepared for meetings, and to make her case based on evidence and logic; how to field questions tinged with negativity, and to avoid reacting defensively or negatively herself; how to turn a disrespectful question back on the questioner and ask "what they meant by it."

"When one [is forced to] think again of what [was] said, he will definitely withdraw [the question] or explain, and this removes the tension right away," she said. "Even if things continue to be intimidating, if one is focused on a goal and achieves it, then one gains strength. There will always be individuals with gender or other biases, and no matter what you do, they will [find] a way to insult."

Over the years—as she became coordinator of the chemical engineering program in 2001, acting associate provost in 2008 and provost in 2009—Ghaddar leaned on those at the university who were supportive, and resolved to change the working environment by bringing

in more women. “Once you have more female faculty around, people become more sensitive and understanding,” she said. Moreover, she discovered, having more women in leadership attracts female students to the engineering field.

And she discovered that by including detractors in her dreams for the department, she could turn them into allies.

“Many times, people feel threatened by success if they are not part of it,” she said. “This is why it is important to make sure to buy into ideas and initiatives.”

### The Payoffs

While overcoming such obstacles, Ghaddar became a pioneer in her field. Much of her research focuses on energy topics relevant to the Middle East—renewable energy, energy management and storage, solar heating, and climate change. She conducted pioneering work on the natural convection in enclosures, heat transfer enhancement complex geometries, heat and moisture transfer in fibrous material, and thermal solar systems.

She started a department degree in applied energy, which increased graduate student enrollment from two to 40. And her department

partnered with European institutions to create labs with external funding.

In 2007 she was named a fellow of the Islamic World Academy of Sciences and in 2009, was elected to the Lebanese Academy of Science. Three years later, she won the Distinguished Scholar Medal and Certificate for Research Excellence from the Lebanese National Council for Scientific Research. *Muslim Science*, an online journal, recently nominated her as one of the top 20 most influential women in science working in the Islamic world.

Although Lebanon remains her home, Ghaddar visits the United States at least once a year for conferences or professional meetings.

Her advice for international students is to “mix with other students from different cultures and observe study and social habits.”

“International experience broadened my views of cultures,” Ghaddar says. “It allowed me... most of all to question and discuss everything I do and why I do it. These constant talks among students—questioning beliefs or changing positions—made me see the world differently. I learned to listen, respect differences and not make judgments of people based on differences.”

## Maria Harper-Marinick

Vice Chancellor and Provost  
Maricopa Community College  
Dominican Republic

**F**OR MARIA HARPER-MARINICK, coming to Arizona as a Fulbright scholar at age 23 was a dream fulfilled, but leaving behind her beloved Dominican Republic was excruciating.

Although she had traveled frequently to the United States with relatives, she felt lonely and isolated at Arizona State University as she studied for her master’s in instructional media—yearning for the extended family and constant social interaction she grew up with in the Dominican Republic’s capital of Santo Domingo. And although she was

an “A” student, worked hard and had a solid grasp of the English language, she experienced discrimination for the first time in her life.

Yet with the help of the school’s international office, supportive professors and a family from the Dominican Republic that invited her to live with them in Arizona, she not only earned her master’s in two years, she returned to the campus a short time later to pursue her doctorate.

“I did not have plans to stay in the U.S. or to live anywhere but the Dominican Republic,” said Harper-Marinick, who now lives in Phoenix and

is vice chancellor and provost for the Maricopa Community College District. “I simply wanted to get a graduate degree in an area of interest and could not turn down the offer when the Fulbright was awarded. Maybe part of me wanted to leave the island for a while. And then life took a different turn: I came and stayed, and here I am 32 years later.”

Harper-Marinick earned her undergraduate degree in education at a Dominican Republic university, intent on becoming a teacher. When she won the Fulbright and arrived in Arizona in 1982, “I was excited and scared at the same time,” she said.

“Arizona is quite far from the Dominican Republic, and I wasn’t sure what to expect. My vision of the West was what I had seen in movies. I almost expected to see cowboys riding horses down the street.”

Particularly challenging, she said, was navigating a different educational system. Her English was solid, but she was accustomed to a traditional method of teaching in which professors lectured, students took notes and exams involved little interaction between the two. At Arizona

State University, she was surprised to discover that part of her grades depended on her class participation and teamwork with other students. There were also more hands-on projects and technical writing than she was used to.

And she experienced discrimination, quite possibly because of her accented English, she said. Some students questioned the accuracy of her test scores each time she scored higher than they did, saying “it wasn’t possible for me to be the one with the highest score because of my language issues,” she recalled. A professor told her in a note that regardless of how hard she worked or how well she knew the course’s content, she could never get an “A” because “he believed I had issues communicating in English.”

“I was surprised because I was getting A’s in other courses that were more difficult,” she said. “I was shy then, and very young, and chose not to do anything about it even though I had to take two more courses from the same professor. I would not tolerate that today, and advise any student who experiences something similar to speak up and file a complaint in the department.”

**Maria Harper-Marinick**



There were social challenges as well. Although an Arizona family that had migrated from the Dominican Republic invited her to share their home, her new friends couldn't spend as much time with her as she would have liked, "and were not expected to," she said.

"Being alone was difficult. In the Dominican Republic, I was surrounded by family and friends at all times. It is a very social and warm culture. It was very difficult at the beginning to spend time by myself, especially on weekends. So, I became homesick and very tempted to just go back."

As she was mulling whether to return home, she visited the university's International Student Office, which put her in touch with other international students. She gravitated toward a group of Fulbright students from Germany, and they became fast friends.

Two professors were particularly supportive. One, Norm Higgins, would invite her to his home to celebrate holidays with his family. Another, Howard Sullivan, demonstrated unflagging faith in her abilities and steered her toward the campus support systems that helped her master her studies.

"I needed that type of encouragement to face the daily challenges and try my best," she said. "Both gave me many opportunities to engage in research projects, to publish and to teach."

Her Fulbright covered tuition, fees and living expenses, and allowed her to graduate in 1984. She moved back to the Dominican Republic, but returned a year later to work on her PhD in educational technology—again with a scholarship that covered tuition. She paid for fees and other expenses through research and teaching assistantships. In the meantime, she met and married her husband.

With her doctorate in hand in 1989, she returned again to the Dominican Republic for two years to fulfill her Fulbright program obligations. In 1991 she became a U.S. resident, returned to Phoenix and started working at the Maricopa Community College system. She became a U.S. citizen in August 2001.

"I knew I would devote my professional life to public education and public policy," she said. "Public institutions are the main, sometimes the only, access to education [for some students] and the potential for a better life for people

from all kinds of background. I believe every single person deserves that opportunity."

Harper-Marinick's hard word paid off—her career achievements have been widely recognized. Among the numerous awards she has received, a few of the most prestigious have been the 2012 Victoria Foundation's Alfredo de los Santos Service in Higher Education Award and being selected as one of the 25 Most Influential Hispanic Business Leaders in Arizona by the *Arizona Business* magazine and as one of the Most Admired Leaders in Arizona by the *Phoenix Business Journal* in 2013.

Her multicultural rearing has helped her career: Her parents were born in the Dominican Republic, but three of her immediate ancestors migrated there from Europe. Her paternal grandfather came from Largs, Scotland, and his mother from Bologna, Italy. Her maternal grandfather came from Oviedo, Spain.

"The fact that I am a multicultural, multilingual woman helps me bring different perspectives to my job," she said. "I am very open to new ideas and new people. I am very comfortable in new places, which makes my traveling for work easier. I have learned to be adaptable and have developed great respect for other cultures."

About twice a year, she returns to visit the Dominican Republic, where she visits with her mother, sisters and extended family, eats her favorite foods—*sancocho*, *habichuelas con dulce*, *dulce de pan*—and lounges by the Caribbean ocean.

"I like to joke and say that I am related to half the island," she said. "I come back reenergized and rejuvenated, literally looking younger. I have spent most of my adult life in Phoenix and consider myself American, but it doesn't take me long to feel very Dominican as soon as I get back there. I can navigate both places and cultures comfortably."

The advice she gives young men and women considering studying abroad, she said, is the same advice she gave her son, who is currently in Singapore as an international student.

"Suspend judgment and be open to all possibilities. Get connected with the college staff and faculty, especially in the international education department. Attend events and get to know the local people. Enjoy the food, the music, the customs, and the sights. Make it a rich learning opportunity. The opportunity to study abroad is a gift."



## Lubna Hamid Tahtamouni

Associate Professor of Biotechnology  
Hashemite University  
Jordan

**I**N JORDAN, as in other developing countries in the Middle East, being a woman working in science can be a bit like walking a high wire.

If she's a competent scientist, her relatives, neighbors and even colleagues may accuse her—to her face or behind her back—of being a negligent wife or mother. If she doesn't give her job 110 percent, her superiors may suggest it's better that she stay home and not try to do "man's work."

Such is the culture that Lubna Hamid Tahtamouni was born into. Though she was raised in Irbid—a northern Jordanian city whose citizens are considered the most educated in the country—she credits studying in the United States with helping her succeed in the field of biology despite gender bias in her home country.

And succeed she has. She was named a 2009 King Hussein Institute for Biotechnology and Cancer Scholar; won a 2011 L'Oréal-UNESCO for Women in Science Pan Arab Regional Fellowship; and was given a 2011 Women in Science for the Developing World Award for Young Women Scientists in Biology for the Arab Region.

That's in addition to heading the Hashemite University's Department of Biology and Biotechnology for the past three years.

"I have always believed in the internationalization of education, and my PhD studies in the U.S. strengthened my belief," she said. "I have always encouraged my students to pursue their studies abroad in order to broaden their horizons scientifically, socially and culturally."

Raised in a large, middle-class family—the third of six children—Tahtamouni and her siblings were encouraged in their schoolwork by their father, a bank manager, and mother, a teacher.

"They were quite open-minded and always treated both the boys and the girls in the same manner," says Tahtamouni.

Yet the educational culture in Tahtamouni's home country did not afford a young woman many choices: After Jordanian students take their secondary education exams, it's the Ministry of Higher Education that decides, based on the student's scores, what discipline they will specialize in when they enter one of the nation's univer-

sities. Tahtamouni earned a 92 percent average on her exams, which entitled her to study biology.

"In fact I didn't like that at first and I was depressed for some time," Tahtamouni reveals. "I finally decided to take that as an opportunity where I would have to distinguish myself and excel."



In Tahtamouni's mind, excelling required studying in the U.S., and so she pursued her doctorate in zoology, which she earned in 2005, at Colorado State University's Department of Biochemistry and Molecular Biology. (see pp. 38–45 for a profile of Colorado State.)

Particularly inspiring was James Bamberg, her PhD adviser at Colorado State, and a man whom Tahtamouni described as “passionate about science, devoted, and sincere.” In addition to being Tahtamouni's mentor, he became what she described as “a second father.”

“He offered me a home away from home, and the more I think of my career and my lab settings and my interactions with my graduate students, the more I see myself in him.”

Upon earning her PhD, Tahtamouni returned as an associate professor to Hashemite, where the majority of female students are from underprivileged regions of Jordan. She was determined to be an advocate for them. Seven of her female students have received their master's degree working in her lab. Two of her former master's students are doing their PhD work abroad, one in Italy and the other in Canada.

“It was a matter of commitment to the Hashemite University,” she explains. “I sensed that my students did not need new leaders, but role models who would give them insights into science, future career and life. Many mornings, when I opened the door to my office, I would find a small paper from an anonymous student telling me how I inspired them. A message to my e-mail address or my Facebook account from a present or a former student telling me that they told everybody about their professor who won an award would make all my frustrations disappear.”

Because Bamberg once told her that scientific advancements double every six months, she promised herself to stay abreast of research methods by spending summers at the Walter and Eliza Hall Institute of Medical Research in Melbourne, Australia, and at Bamberg's lab at Colorado State.

Securing basic research funding—which can be difficult in any country—is particularly hard in an nation such as Jordan, where research money typically goes to national priorities such as water and energy.

But using the experience she gained during those summer visits abroad, Tahtamouni secured

government and university support to create a multiuser video imaging microscope facility at Hashemite for faculty and graduate students. In 2008 she was appointed director of that facility.

The facility has five microscope systems, including a state-of-the-art wide field microscope, three fluorescent microscopes and one phase contrast. Such equipment, she said, is “extremely important in cell biology studies, such as cancer research, in which a scientist may wish to study the effects of an anti-tumor drug on tumor cells.”

Tahtamouni also helped to organize a Faculty of Science Scientific Fair in 2006, 2007, and 2009, a proposal writing workshop in 2010 and 2011, and a workshop in 2010 on medical applications of stem cells.

The fairs exposed students to the scientific method of conducting research and gave them a chance to display their results publicly. The writing workshops helped faculty members who were new to writing grant proposals. Hashemite scientists who attended later won research funding from TEMPUS (Trans-European Mobility Programme for University Studies), the German Research Foundation and the Scientific Research Support Fund/Jordan Ministry of Higher Education.

“We wanted to give the faculty greater chances of landing funding, since most don't write their proposals with the reviewer in mind, and most don't understand the mission of the funding agencies,” she said. “I think the main challenge for these workshops was that I was a young woman scientist lecturing older male scientists on how to secure money for their research.”

The workshop on the medical applications of stem cells was sponsored by pharmaceutical and health care companies and highlighted speakers who were oncologists, health technicians and scientists.

“Being an international student exposes one not only to new educational experiences but also to new cultural experiences and ways of life,” says Tahtamouni. “My advice for students, especially if they come from developing countries, is to seize all their time being in a developed country such as the U.S., learn as much as they can in their specialization subjects, and try to adapt to the new cultural patterns and ways of life. Diversity will always enrich a person, and [it] will help their own countries progress.”





## Sasha Anastasia Perugini

Director at Syracuse University in Florence  
Italy

**S**ASHA ANASTASIA PERUGINI was 25 when she started her doctoral program at Tufts University, just six miles outside downtown Boston. Italian born and bred, she was relatively new to the United States, was struggling with the school's writing requirements, and found the harsh New England winters a "shock." Her limited financial means made her feel out of place among the few Italian students on campus, most of whom came from wealthy families and didn't have to take poor-paying jobs to make ends meet, as she did.

But she'd do it all over again, says Perugini, who today is the first Italian director of the Syracuse University in Florence, Italy.

"If there is one piece of advice I'd give to other students, it is to study abroad—anywhere," said Perugini. "It is one of the best things that ever happened to me. Although I had to go through difficult times, I learned that I was able to endure and persist, which is precisely what helped me become more confident, self-reliant and more appreciative of life in general."

Born and raised in the Tuscany city of Siena, Perugini is the daughter of an Italian father who died when she was 6 years old, and a Yugoslavian mother who frequently took the young Perugini on trips to Germany and Belgrade, capital of what is now Serbia. Exposed early in life to new foods, cultures, religions and languages, and fluent in Serbian, Perugini decided to study abroad—at the University of Sussex in the United Kingdom—during her senior year in college.


She describes it as a turning point in her life, as it convinced her that "all I wanted to do was to go abroad again—notwithstanding the challenges, frustrations, and difficulties."

"It was the most fulfilling experience I had had up until then, and what I loved most about it was how I had to recreate and rethink my own identity, since no one knew nor made any assumptions about me, my background or my beliefs," said Perugini, who majored in English and Russian languages and literature at Sussex.

The next few years would bring several moves—to Harvard for summer school, to Colorado College as an



COURTESY OF SASHA ANASTASIA PERUGINI



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Italian language lecturer, then to Tufts University for a four-year PhD program in theater.

Each move brought challenges as well, some so daunting that a discouraged Perugini almost returned to Italy.

There were few international students like her at either the Colorado or Tufts campuses, and the campus staff seemed ill-equipped to help her with questions about visas. She gravitated toward other Italian students, but their wealth made her feel self-conscious; unlike them, Perugini was getting by on scholarships and part-time work, including teaching Italian at a Boston cultural association and working at an art framing shop. And her previous Italian education, which was based largely on oral exams, had not prepared her for writing papers in the United States.

“Writing my final papers while also having to read my students’ finals and having to grade them was draining,” she recalled. “Christmas was always the most dreadful time of year for these reasons. On top of all this, the war in Yugoslavia started exactly while I was working on my PhD. Although I would refuse to talk about it, I was constantly faced with questions, anecdotes, images, emails and people who expected informed commentary from me. For me, it was all just very painful and sad.”

Perugini became so depressed, she said, that, at times, she could barely function.

“That’s when my stepfather, on the phone, told me to just jump on the first flight and go back to Italy,” she recalled. “I never ended up taking that flight, but knowing that was always a possibility made it all more bearable.”

She was nearly 30 when she wrapped up her PhD coursework. She knew that securing a visa to work in the United States would be difficult, and far from guaranteed. She could no longer endure the Boston winters. She considered finding a job in New York City, but knew she’d barely survive there on her limited finances. So,

Perugini returned to Italy to finish her dissertation on Italian postwar popular theater and Fellini, and while there, won a post as academic manager at the University of Siena.

It was another turning point.

“From then on, things started improving slowly, but surely,” she said. “It was a consistent, exciting climb to where I am right now.”

From Siena, she took a job in Rome working for a study abroad provider, went to Prato as manager of the Monash University Center, then found herself in Florence at Syracuse University, which hosts up to 700 students a year and has a staff of about 70 staffers and faculty. In that post, she is at once a business strategist, curriculum developer, and legal representative. A presenter at many conferences, Perugini recently put together a symposium on “Human Capital Management and Development in Transnational Education.”

Amy Kleine, who works under Perugini at Syracuse as assistant director for health and wellness, describes her boss as a prolific creative writer who is a regular contributor to the *Huffington Post* and who’s published several books. One—*Con un Buco Nel Cuore*, recounts Perugini’s own experience with heart surgery in the Italian public health system.

“It’s received quite an amount of attention in the medical world here, and is used as a teaching tool in some universities, not to mention the number of requests for author presentations,” Kleine said. “She is a mover and shaker in our world of international education, and is pursuing many other intellectual endeavors as well. I think you will see her name more and more in our field.” **IE**

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