Wanda Haynes took to welding like a duck to water in 1987 at the age of 18. Passing by a welding shop at her vocational college in Savannah, Ga., Haynes found herself mesmerized by the sparks. After giving it a try, she dropped her electrical engineering focus and began taking welding classes.

“To my surprise, I struck an arc and laid a bead like I had welded before, but I had never welded a day in my life,” she said with a laugh. “I was infatuated with it.”

However, the decision did not come without obstacles. For one, Haynes’ mother did not approve of her daughter going into the welding field.

“My fuel for being a good welder is my mother; she told me I would never be a welder. It wasn’t because of my ability, because she knew I could be anything I put my mind to, but she knew that women weren’t doing this kind of work and she feared for her baby girl,” she recalled.

After earning an associate’s in welding technology from Savannah Vocational College, Haynes immediately went to work. She started out in the papermill industry, where she cut out old piping and welded them back. She then transitioned to the energy field, working as a nuclear welder for Florida Power Corp. as well as the Oconee Nuclear Station in South Carolina. She has also spent time in Long Beach, Calif., and Corpus Christi, Tex., restoring minehunters for naval shipyards.

“I was one of the first female welders to weld for the Navy shipyard, so they had to get special permission for me to do that assignment,” she said.

As her mom predicted, Haynes did experience gender discrimination. She recalls losing several contracts abroad — one in Japan and one in Haiti — because of her gender. However, she didn’t allow that to discourage her. Instead, she used this adversity as the inspiration to try harder and be better.

“Things have changed a lot now, thank goodness, but back then, because there weren’t any women doing that type of welding, there were places overseas that I was not able to go to,” she explained. “I always had to prove myself, so I’ve had to be twice as good. Once I showed them I knew what I was doing, I got that respect and there wasn’t a struggle anymore.”

Haynes credits welding for giving her the opportunity to branch out into many industries and travel across the United States and abroad.

“Welding has been the one thing that changed my life. I had always wanted to travel. I come from a family of poverty and struggle. As a kid, I was always thinking, ‘How can I get out of this?’” she said. “Once I got the first few checks, I remodeled my mom’s bathroom, and was able to pay off my indebted bills.”

After traveling as a welder for more than two decades, Haynes purchased a farm in South Carolina to settle down. As fate would have it, she soon received an offer for a teaching job at Donaldson Career Center, Greenville, S.C., which was in jeopardy due to low student enrollment. The transition into teaching was not easy for Haynes, and she considered giving up a few times, but she held on and eventually turned the school’s welding program into a successful one. According to Haynes, for the past three years, the program has enjoyed a 100% pass rate for qualification to American Welding Society (AWS) D1.1. She’s also proud that the program yielded its first student qualified in pipe every year.

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Haynes is currently the school’s career and technical education (CTE) welding instructor and OSHA outreach trainer. She is also an AWS Certified Welding Educator. She teaches oxyfuel and plasma arc cutting; shielded metal, gas metal, flux cored, and gas tungsten arc welding; safety; and blueprint reading.

To motivate students, she has them work on real-world projects, such as a boat ramp and an 18-ft flat bed.

“It was challenging because everything had to be right on the money, so they realized how important quality is,” she said.

After six years of teaching, she now sees it as her calling.

“I have a strong desire to teach. I relate to so many of them because they’re in the same shoes I was in when I was their age. I think that’s why I have a great turnout with my students because we have a wonderful connection,” she said. “I enjoy seeing my students succeed.”

Her dedication to teaching has not gone unnoticed. In 2014, a student nominated Haynes for the Greenville County High School Papa John’s Teacher of the Year award, which she won, along with free pizza for a year. She also recently won the Teacher of the Year Award for her school, and is currently being considered for the national award. According to Haynes, if she wins, she’ll be the first CTE teacher to receive the award.

Haynes is also interested in reaching out to young people outside of the classroom. She is currently in the process of putting together an organization that will promote welding and other nontraditional fields to kids, especially young women.

Although teaching takes up the bulk of her time, Haynes is also the owner and founder of Multi-Tech Services LLC, which allows her to do side work.

“The industry is crying out for welders. I’m able to get many contracts just being a minority and a female owner of a company,” she said. “That’s why I am trying to prepare these students, especially women, because they’d never be without a job. Many women see welding as dirty, but at the end of the day, starting off at $65,000 out of school, I think I’ll sweat a little bit.”
AWS Member Profile

Scott Brown

Scott Brown learned about welding through his dad, Steve, a pipeline welder who worked on pressure plants in the late '70s and early '80s. At 12 years old, Brown began accompanying his dad to work during the summers. "I remember getting to drive the truck up the line and rolling up leads. I thought it was great to do," he recalled.

Like many other welders, Brown's dad would head south for the winter to find work. The move involved the whole family, including Brown's mom, Judy, who worked as his father's welding helper.

While Brown was in high school, his father opened a welding shop, which became Brown's workplace until he graduated. However, Brown wasn't satisfied with just welding; he also wanted to know the science of how it all worked, and this inquisitiveness prompted him to seek out welding education.

"When I was a sophomore in high school, I was working for my dad and was asking a lot of why questions — why this, why that, etc. He said I needed to take some welding classes at Cochise College to get all the theory," explained Brown.

Having taken some welding classes at the college, Brown entered the industry after graduating from high school. He has performed gas tungsten arc welding for an aerospace company in Tucson, Ariz.; helped make stainless steel commercial refrigerators at a plant for several years; worked as an ironworker for almost two years; and repaired gas lines, water lines, and heavy equipment for seven years at the Fort Huachuca U.S. Army Garrison in Sierra Vista, Ariz.

While working in the field, Brown continued to build on his education. On one occasion, he returned to Cochise College, Sierra Vista, Ariz., for a pipe test, and came upon his old instructor, Bill Saathoff, who Brown described as "a great instructor" who was "liked by all." Impressed with Brown's performance during the test, Saathoff offered him the opportunity to teach an oxyacetylene welding class. The experience opened up a new chapter into teaching.

"I was caught off guard by the question at first but then jumped on the opportunity. I taught one class that semester, then I taught two classes the next semester, and finally taught three classes the following semester," he recollected. "I was still welding in the field during this time and worked both jobs for four years until I got hired on full-time in 1998."

Today, Brown is the lead welding instructor at Cochise College, where he has worked as a full-time instructor for 21 years. He teaches pipe and structural steel welding, flux cored arc welding (FCAW), and shielded metal arc welding (SMAW). He also teaches for the aerospace welding program.

"I get to teach a wide variety of welding. It makes it fun to be able to bounce back and forth from different processes," he said.

His favorite aspect of the job is seeing students mature into successful welding professionals.

"I enjoy producing great welding students and staying in touch with them as they make it through their welding careers. It makes me feel good when I hear their stories as to what they are doing with their careers," he said.

Brown currently has two of his previous students working alongside him as full-time welding instructors, and several who have taught as part-time instructors. One such student, Hope Struse, is currently a full-time welding instructor at Cochise College. She credits Brown for helping her reach her goals.

"Scott Brown is the person behind the scenes who has pushed me to continually aim for better than I believed; who opened doors and made possibilities a realization," said Struse. "A lot of people say that I have a successful welding story, but my success is just a magnification of the heart that people like Scott put in to help me achieve my dreams."

In his more than two decades of teaching, Brown has noticed the presence of more female students in his classes — a trend he is happy to see.

"I am glad to see the numbers climb for female welders in our area," he said.

When he is not teaching classes, Brown moonlights as the advisor of the SkillsUSA Club Arizona as well as the college's competition coordinator.

"We host a high school welding competition annually, open to the state of Arizona, to help get students started in competing and getting used to the pressure. This pressure is felt even by welders in the industry; they are always competing to be the best. It's one of the biggest competitions in our area, and we give away several thousand dollars of prizes," he said.

Brown is proud of the time and hard work his students put into preparing for competitions.

"Training students for competition at the state and national level gets to be a lot of work for all. Students will dedicate hours a week to prepare for these competitions," he said. "It is a great feeling to see them be so motivated and produce good results and move up to the national level."

In addition to being an instructor, Brown welds on the side and does consulting. He holds an associate's degree in welding, and is an American Welding Society (AWS) Certified Welding Inspector. He is also qualified to MIL-STD-1595A for aluminum, chromoly, stainless steel, Inconel®, and titanium; API 1104; and AWS D1.1 for FCAW and SMAW.

On his time off, Brown enjoys off-roading, especially in the Imperial Sand Dunes.