

From barrier buster to ozone buster

Boeing employee honored as first female chemistry graduate at Georgia Tech

BY KATHLEEN HANSER

Once there was a young woman in Georgia who loved science. She earned an academic scholarship and acceptance at one of the country's most rigorous, prestigious technical universities —Georgia Institute of Technology. She followed the chemistry curriculum, got good grades, and in her third year applied to be a chemistry major.

But one small detail stood in her way: The college catalogue stated that Georgia Tech allowed women to major in applied mathematics, engineering and architecture only. The school had approved her change-of-major form because it approved all students in good standing routinely, and because only the applicant's first and middle initials were on the forms, disguising her gender.

There would be a battle ahead once someone realized a woman had sneaked through the system.

This determined young woman, Jean Ray, is now a chemist at Boeing Commercial Airplanes, Boeing Materials Technology, in the Fluids and Lubricants Group. The Georgia Tech College of Science and Business recently honored her as the first woman chemistry graduate in their "50 Years of Women at Tech" celebration.

"The head of the Chemistry Department summoned me to his office and reminded me that women were not allowed to major in chemistry," Ray said. "He said this was so Georgia Tech did not duplicate programs available elsewhere in the state university system."

For her first two years, Ray officially was registered for a major in chemical engineering but was following the chemistry major curriculum.

"It's not that they didn't have room for women in the classes—there was no barrier to women taking any chemistry class," Ray said. "But, even if I did all the required coursework, I still could not be granted a chemistry degree."



Jean Ray, a chemist at Boeing Commercial Airplanes, is proud to be the first woman chemistry graduate of Georgia Institute of Technology. But what makes her most proud is that her efforts opened doors for other women to do the same.

Ray easily could have solved the problem by transferring to another school. But at that time, Tech was the only Georgia state university that required the American Chemical Society's approved curriculum and prepared students for graduate school.

"It was a superior education—a degree from another state school was just not as good," Ray said. "Why shouldn't I be able to attend an accredited program and get the same education as the men?"

Not one to be deterred, Ray spent spring break of 1962 in the Tech library reviewing all the state university chemistry curriculums. She made a list comparing the titles and number of chemistry classes needed to get a Bachelor of Science chemistry degree.

"My next step was to write the Board of Regents requesting admission to the Georgia Tech chemistry department," Ray said. "I stated I was a student in good standing, on scholarship, had routine approval to change my major, and cited the unavailability of equivalent chemical education in great detail."

Several months later, Ray received a reply from the Board, complimenting the well-written letter, and in January 1963, the Board of Regents notified her that they would make an exception in her case and allow her to major in chemistry.

"I immediately shared the details of my method with my Alpha Xi Delta sorority sisters and others who wanted to transfer to a 'forbidden' major," Ray said. "Soon after that, the school approved three women for physics, biology and psychology majors, again as exceptions to the rule."

It wasn't until the 1966–67 academic year that Georgia Tech opened all departments to women and made available a larger women's dormitory. Now, 28 percent of the students are women.

This year, before the Georgia Tech Homecoming game on Oct. 26, the College of Science and Business held a forum honoring Ray as their first woman chemistry graduate. She also gave a presentation and participated in a panel discussion about her experiences at Tech and as a scientist in industry.

At the time, Ray didn't think of herself as a trailblazer. "The steps I took were just something I had to do to meet my personal goal of becoming a chemist," she said.

But now she recognizes the importance of her actions. "Being the first woman chemistry graduate is an honor, but causing a major change in Tech's system to the benefit of others is what makes my family and me most proud," Ray said.

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