

Breaking the Sound Barrier - The National Technical Institute for the Deaf helps hearing-impaired students succeed in engineering and technology careers

Graduating Engineer & Computer Careers

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By Jean Ann Cantore

The National Technical Institute for the Deaf (NTID) provided deaf and hard-of-hearing students with an opportunity to receive an education in a technical field. As one of seven colleges at the Rochester Institute of Technology in Rochester, N.Y., NTID is unique in that it is the world's first and largest college to offer an entire technical curriculum for students with hearing disabilities.

The concept for the institute was born when the U.S. Congress put forth the idea of creating a technical school for deaf students in conjunction with an existing university or college. After answering a call for applications and meeting certain criteria, the Rochester Institute of Technology was chosen as the host institution. NTID was placed on the RIT campus with federal funding that was signed into law in 1968 by President Lyndon B. Johnson. The first class of 70 students entered NTID/RIT later that year. Today, 1,100 of the 13,000 students who attend RIT are deaf or hard-of-hearing.

Choosing NTID/RIT

In addition to NTID, the other academic colleges at RIT are Applied Science and Technology, Business, Engineering, Imaging Arts and Sciences, as well as Liberal Arts and Science. "All programs that RIT offers are available to deaf students," notes Tom Raco, Ed.D., director of the Center for Technical Studies. "Students studying for their bachelor's degree are mostly in classes with hearing students. We have a technical-level program for deaf students that uses technologies and strategies to help them"

Students who are accepted to NTID have the option of earning an associate's degree or diploma in a technical program, or working toward a bachelor's or master's degree in one of the other colleges of RIT. The College of Engineering offers degree programs in computer, electrical, industrial/manufacturing, mechanical, microelectronic and software engineering.

To qualify for admissions to NTID, students must have a hearing loss of 70 decibels or greater across the 500- and 2,000-Hertz range in the better ear (unaided). These students must require access services to succeed in college. Students must also have a high school diploma or General Equivalency Diploma (GED) and submit scores from either the American College Test (ACT) or the Scholastic Assessment Test (SAT).

"Prior to NTID, the only place where deaf students had full access was Gallaudet University in Washington, D.D., which is a liberal arts college," Raco comments. "At NTID, we emphasize the 'T' because we focus on technical and technologies training. That is the basis for which NTID was started in the first place."

Although there are schools all over the world that provide some support services for deaf students, few compare with the programs and services offered by NTID. One clear advantage for students is that faculty and staff members are able to sign. As part of NTID's mission, the school also supports other deaf and hard-of-hearing students who are pursuing bachelor's or master's degrees.

Students in RIT's College of Engineering, for example, can access NTID's staff of 100 full- and part-time interpreters. Real-time graphic captioning helps students understand presentations, or they can request note-taking services or professional tutoring. Each student is assigned a counselor who advises about course schedules and academic issues. Through this support, NTID/RIT has

graduated more deaf and hard-of-hearing engineers than ever before.

As other schools do, NTID offers a co-op program for students, designed to combine what they learn in the classroom with real-life work. "NTID/RIT has a very long and satisfying history in cooperative education," Raco comments. "All NTID students are required to participate in co-ops." In addition, NTID has a Center on Employment that provides assistance to all deaf and hard-of-hearing students as they pursue co-op and permanent employment.

First Choice

Genevieve "Genny" Bresett is a second-year electrical engineering technology student at NTID/RIT who thrives in the school environment. Although Bresett considered other engineering schools, she chose NTID/RIT for her higher education because of the support system offered and because RIT has both deaf and hearing students.

"I chose electrical engineering for my major because I am fascinated with the applications of electricity and the potential of new applications being developed," Bresett explains. "I changed my major last year to electrical engineering technology because electrical engineering depends too much on mathematical and scientific principles. The material I was learning in electrical engineering was not immediately useful to me, but what I am learning now is."

Bresett notes that her career plans are "largely undefined," but she plans to complete her bachelor's degree and work for a few years before possibly pursuing a master's degree in electrical engineering.

In addition to her studies, Bresett is a member of the RIT Ambulance Corps. Because she attends classes with students who are able to hear, she has had to learn to communicate with them through various methods. She talks with them by using speech, lip reading, e-mail and through an interpreter.

"The best part of going to school at NTID/RIT is the people that I have met and become friends with," Bresett adds. "Also, I really like the opportunities that are available to me at this school."

Full-Fledged Convert

"I chose NTID/RIT because, to be perfectly honest, my dad had looked into some education for me without my knowledge," says Doug Matchett, who graduated from NTID/RIT in 1989 with a bachelor's degree in civil engineering technology after working in construction for several years. "My dad, who is the retired dean of the Graduate School at New Mexico State University, spoke with the dean of speech and pathology at NMSU, who mentioned NTID/RIT. I was persuaded to meet with the dean, and he [explained] all about NTID/RIT and all the great opportunities waiting for me.

"After some hard thought and a last-minute decision, I decided to pay a visit to NTID/RIT, as I wanted to travel anyway. I recall the minute I got on the plane and told my dad that I'd be back before long. I'm still up here."

Prior to attending NTID/RIT, Matchett was a student at Washington State University where, he says, "I didn't do very well with my education but had a great time being a member of a fraternity and playing on the WSU water polo team."

Matchett left WSU to work full-time, then landed at NTID in 1980, choosing to major in civil engineering technology because of a long-time interest in carpentry and construction. While a student at NTID/RIT, he mingled with hearing peers and enjoyed a variety of social activities and sporting events.

"It's a place where you can learn and work with a diverse group of people," he adds.

After graduation from NTID/RIT, Matchett applied his education to a variety of jobs, working as an inspector, investigator, problem-solver and project proposal reviewer. He also worked as a civil engineering technician for a year and spent six years as a seasonal construction inspector for a consulting engineering firm. His next career move was a nine-year stint as a construction engineer with the Monroe County Pure Water Authority.

"After being in the construction work force for 25 years, I have decided to make a career change, as I have always wanted to teach and to give something back to the younger deaf generation," Matchett explains. He now teaches at NTID, where educators are preparing a proposal to implement a new computer-aided drafting technology associate degree program.

NTID offers opportunities that cannot be found anywhere else to people who cannot hear. In fact, people such as Doug Matchett attribute their success to NTID.

"If it weren't for NTID/RIT, I don't know where I'd be right now," Matchett says. "NTID/RIT set a foundation for me with a quality education and support services that helped me succeed and [get to] where I am now."

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