

SPRING / SUMMER 2002

FOCUS

NTID

National Technical Institute for the Deaf • Rochester Institute of Technology



Class of
2002

MICHAEL
FREEMAN
3/14/2002



CONGRATULATIONS
Graduates



Proud achievers RIT's 117th commencement ceremony, held May 25, 2002, formally celebrated the accomplishments and personal growth of deaf, hard-of-hearing, and hearing graduates. "We will show others what we can do . . .," said Karen Moser, college delegate for NTID, to the Class of 2002. "We are brave, intelligent, and self-confident, ready to face the challenges of life."



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ABOUT THE COVER

This colorful illustration by Michael Freeman, 24, of Largo, Fla., is a gift to NTID from the graduating class of 2002. Freeman, who is deaf, is a 2002 graduate of RIT's Film/Video/Animation program. The work depicts images of a deaf child blossoming into a successful leader through college and career opportunities at NTID/RIT. The illustration, which is the first-ever gift to the university from an NTID graduating class, will become part of NTID's permanent collection housed in the Dyer Arts Center.

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FOCUS

NTID

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RIT will admit and hire men and women; veterans; persons with disabilities; and individuals of any race, creed, religion, color, national or ethnic origin, sexual orientation, age, or marital status, in compliance with all appropriate legislation.

Breaking New Ground

At events marking the opening of the Dyer Arts Center five short weeks after terrorist attacks jolted the collective consciousness of America, Dr. Anthony Bannon, director of the George Eastman House in Rochester, delivered an eloquent speech describing the importance of art and technology in our rapidly changing world.

“Let us not forget,” he said, “that this art center brings together the worlds of art and technology, and that goes a long way toward summing up what is important to how we live our lives, here and now. The arts are both our solace and our challenge, lodged on one hand in tradition, while necessarily, according to the very nature of art, breaking new ground, creating unique expression.”

Those words describe my thoughts as I set out now to share with you some of the year's most memorable accomplishments. And there are many.

Significant national exposure, groundbreaking new academic programs, inspiring partnerships with industry and educators worldwide, a beautiful addition to our campus, new faculty and staff members bringing fresh ideas and impressive experiences . . . all of these things shaped academic year 2001. And all are the result of many dedicated individuals working tirelessly toward new goals designed to keep NTID constant yet changing, reliable yet innovative, in its pursuit of academic excellence.

Undoubtedly, the centerpiece of the past year was the much-anticipated October opening of the Joseph F. and Helen C. Dyer Arts Center, which quickly has established itself as a vital physical and creative space for the NTID community. Hundreds of visitors have enjoyed its beautiful interiors and been inspired by its breathtaking displays of quality art. We gratefully acknowledge Joseph and the late Helen Dyer, Elizabeth “Cookie” Williams, and Ray Ohringer, for making this possible for all to enjoy.

Only two months after school began this fall, NTID announced a partnership with IBM to develop a new academic program in automation technologies. This Fortune 500 company pledged to help us develop curriculum in the area of semiconductor technology, and to provide co-op opportunities for interested and qualified students. IBM also agreed to provide professionals to teach selected courses within the curriculum.

This program, scheduled to begin next fall, will produce graduates with the technical skills IBM is looking for in its semiconductor technology arena—a beneficial union both for our college and for this great company.

Another new program—a bachelor of science degree program in ASL-English Interpretation—also will begin next fall, adding to NTID's highly successful associate degree program in the same field.



An artful illustration Michael Freeman, center, a 2002 graduate of RIT's Film/Video/Animation program, created the illustration seen at left in this photo as a gift to NTID from the Class of 2002. Freeman, who is deaf, presented the gift to Dr. Robert Davila, left, and NTID National Advisory Group Chairperson Paul Ogden at a reception in the Dyer Arts Center. The illustration is featured on the front cover of this issue of *FOCUS*.

As the national demand for interpreters with specialized skills increases, this new program will prepare a select number of highly qualified graduates to enter a variety of interpreting fields. Historically a leader in interpreting education, NTID's new program promises to keep the college at the forefront of an important service profession. You can find out more about the new program on Page 18 of this issue of *FOCUS*.

In December, NTID's Department of Science and Engineering Support received a Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. The department was recognized for helping students successfully pursue and complete degree programs in science and engineering through the access and support services it provides. RIT received a \$10,000 grant to continue its efforts in this area and department members were honored at a White House ceremony.

The following month, NTID

enjoyed national recognition when *CBS Sunday Morning* aired a two-part series on Rochester titled, "Sign City." NTID students, professors, and staff members all appeared in the series segments, which described Rochester's dynamic deaf community and NTID's prominence as a place of higher learning.

Part of the reason that Rochester's deaf community continues to thrive is the desire of our graduates to remain here after they finish their college education. For that we have to thank both our admissions and placement departments, who this year made continued strides in recruiting students and placing graduates in the Rochester community as well as nationally.

Finally, I would like to mention two grant programs based at NTID that are bringing national and international recognition to the college.

The Northeast Technical Assistance Center (NETAC) continues to bring NTID recognition as a national

resource related to educating and supporting deaf students at the postsecondary level. NETAC recently received its second five-year grant from the federal government to continue its work.

The newly created Postsecondary Education Network International (PEN-International), led by former NTID Dean Dr. James DeCaro, quickly has established itself as a trailblazer in providing access to postsecondary education for deaf students worldwide. PEN-International, funded by The Nippon Foundation of Japan, has formal partnerships with universities in Japan, China, and Russia, and will be working closely with a number of other colleges in still other countries in the next few years. You can find out more about this exciting program on Page 4 of this issue of *FOCUS*.

Both PEN-International and NETAC have the potential to reach thousands of students, parents, educators, support service providers, and employers, and to share with them the knowledge and experience NTID has gained in the past 35 years.

Outreach . . . art . . . technology . . . employment . . . partnerships. NTID continues to lead the world in its ability to seamlessly meld offerings in both cutting-edge technology and exceptional creative arts. The result is graduates who leave the college well educated, well qualified, and well rounded.

As Dr. Bannon noted, "An art center in a great institute of technology has an opportunity for integrated solutions that can help make a difference . . ."

Thank you to all who have made that difference this year, and who will in years to come.

A PENchant For Possibilities

by Karen E. Black



RIT Vice President for NTID Dr. Robert Davila discusses the benefits of career education for deaf people. The Chinese symbols behind him read “Tianjin Technical College for the Deaf of Tianjin University of Technology/The Official Opening Ceremony of the PEN-International Multimedia Lab.”

“This program helps deaf people worldwide, so they can be educated to explore where their hearts are leading them. PEN just wants to help make it possible for them.”

**Justin Drawbaugh,
NTID/RIT Information Technology student**

Each fall, students from many different countries arrive in upstate New York to study at this unique place called NTID. Indeed, the experience extends far beyond the anticipation of seeing their first snowfall; no one can prepare them for what they find.

Wide-eyed and perhaps a little overwhelmed, most have never before met deaf engineers, architects, designers, machinists or computer specialists. Certainly they have never been in the same place with hundreds of deaf people just like themselves, much less a place where so many hearing people are fluent in sign language.

But their amazement quickly changes to excitement, and they begin to realize the vast number of opportunities available to them . . . opportunities that they never dreamed possible.

Now, the experts at NTID are hand carrying and gently placing those opportunities in colleges around the world.

Through the generosity of The Nippon Foundation, which to date has invested more than \$2 million dollars, a new organization has been formed to help universities across the globe that educate deaf students apply state-of-the-art instructional technologies, improve and update their technical curriculum, and update their computer hardware and software.

Key players in the new organization, called Postsecondary Education Network International, or PEN-International, are NTID and its sister college Tsukuba College of Technology (TCT), of Tsukuba University, in Japan. Working closely together, they have made significant headway in the 15 months since PEN-International was formed.

With 32 years of experience in educating deaf people, James J. DeCaro, Ph.D., former dean of NTID, directs PEN-International with one goal in mind.

“To help other countries help themselves,” he says. “Each country is in a different stage of educating deaf people at the college level. Each has its own set of goals. Add to that mix each country’s unique written, spoken and signed languages, its own culture and technical knowledge, and it becomes a very exciting, multilayered project.”

Tianjin University of Technology (TUT) in China and Japan’s TCT were first to reap the rewards of this project. Taking each step collaboratively, the PEN team first conducted a needs assessment, confirmed equipment needs, and assured compatibility. Next, they developed curriculum to fit each college’s specific needs, and designed and built a multimedia lab that included renovating space, installing new computers/workstations, configuring the network, and installing



Chinese faculty member

Kang Shunli pitches in to help set up the new multimedia lab for deaf students, thanks to The Nippon Foundation and PEN-International.



Technology knows no boundaries Commemorating Japan's new multimedia lab, Japanese and U.S. deaf students performed haiku poems to a global audience, as the American and Chinese participants simultaneously participated via video conferencing and World Wide Web video streaming. Seated is English Professor Midori Matsufuji, as she watches student Ohata Yoshihiro, standing center, finish his haiku.

projection systems for easier visual instruction. Finally, they trained faculty how to use the new lab to meet their instructional needs.

"Our colleagues are quite technologically savvy," says DeCaro. "Our role is to demonstrate ways of using new and innovative instructional technology to educate deaf students."

"PEN-International has accelerated our ability to apply new instructional technologies by almost a decade," says Bao Guodong, director of Tianjin Technical College for the Deaf. "They are also helping us to become a resource for educators of the deaf throughout China."

"Our new lab has quickly become the most popular lab on campus!" says Professor Han Mei, the multimedia lab supervisor. "The lab now makes innovative multimedia education possible."

The highly symbolic first ribbon-cutting ceremonies for the new labs were conducted in early October and included a simultaneous viewing at each participating college in the U.S., Japan and China via videoconferencing and World Wide Web video streaming.

"It sent a strong message, that despite the turmoil caused by horrible world events, we want to work together for human potential," says DeCaro, "and aside from different languages and cultures and political motives— we *can* and *will* continue to share and learn from each other, because tremendously good things come from that."

The high-tech ribbon-cutting ceremonies conveyed other important messages, like fading boundaries and collapsing barriers.

"Deaf people have historically been limited in career choices," DeCaro says. "We're working to end those days

for deaf people everywhere."

The Nippon Foundation strongly supports that goal.

"There are very few deaf people around the world who can afford to study abroad. Countless other deaf or hard-of-hearing students are left behind and are not able to obtain high quality postsecondary education in their home countries," said Mr. Reizo Utagawa, executive director, The Nippon Foundation. "This is particularly true in developing nations. We believe it is important to establish an educational infrastructure in these countries to prepare deaf and hard-of-hearing people to enter society and the workplace."

An integral part of the process has been a cultural exchange, where



日本財団
The Nippon Foundation

Based in Japan, The Nippon Foundation is one of the largest philanthropic organizations in the world. It believes that all

people on earth share a common duty, a mission of transcending antagonism and overcoming conflict, so that we may instead establish consensus and provide assistance. The Nippon Foundation has dedicated itself to meeting that challenge. The Nippon Foundation previously awarded NTID two \$1 million grants to establish an endowed scholarship fund for deaf students from developing countries to attend RIT.



PEN International Director Dr. James DeCaro, holding document, receives visiting professorship honors at Tianjin University in China. He is standing with Guodong Bao, director of the university's Technical College for the Deaf, left, and Jun Li, the university's president.



Popcorn! Peanuts! NTID's Mary Lamb, senior staff assistant, and The Nippon Foundation's Executive Director Reizo Utagawa enjoy a favorite American pastime during a Rochester Red Wing's baseball game. Special guest Utagawa threw the first pitch that game.

Chinese, Japanese, and American deaf and hearing students and faculty visited each other's countries, gaining hands-on training, technology transfer, networking, and a taste of different cultures.

"I came home with a new realization that we are not alone, because we have the same feelings inside as the deaf Chinese students we met," says Justin Drawbaugh, a fourth-year Information Technology student who traveled to China with five other NTID students and three students from Japan's Tsukuba College.

The exchange trip also helped broaden graduate student Julie Stewart's professional aspirations.

"I now want to work in education

at the international level and explore how other countries are educating the deaf to see how it can apply to the American system," she says. "We were in awe being there. I came back with more understanding of how fortunate we are as deaf people living in America, and I realized that America is a baby compared to China in history!"

The long-term goals of PEN-International are twofold: to equip deaf students with the skills needed to compete in a high technology, global marketplace; and to prepare universities to share the knowledge and instructional products they develop with other colleges in their corner of the world.

Over the five-year life of the project, PEN-International will work in as many as six different countries.

"PEN-International has encouraged students, and in particular, faculty members to actively shape their own destiny," says The Nippon Foundation's Utagawa. "They train faculty, who then train other faculty throughout the region. As

a result, we are placing a special emphasis on improving educational infrastructure worldwide."

"We are now building upon our successes and working with two new partners," DeCaro says.

They are Bauman Moscow State Technical University in Russia and de la Salle University—College of St. Benilde in the Philippines.

PEN-International's Web site, www.pen.ntid.rit.edu, is being designed to serve as a multilingual portal for faculty training and development for all participant countries. The PEN team also is developing a Survival Sign Language Dictionary that will include 125 words and phrases from English, Russian and Japanese sign languages, and later will include Chinese, Philippine, and others. In addition, the PEN team is partnering with the World Federation of the Deaf to develop a database of colleges and universities worldwide that serve people who are deaf or hard of hearing.

But, DeCaro says, the ultimate goal is to have an impact on the students.

"We're doing this to make a difference in the lives of young deaf people who—through no fault of their own—" he says, "have been deprived access to social and economic opportunities in their countries."



Riding in style NTID/RIT student Justin Drawbaugh enjoyed a ride in a bicycle jinriksha, a common form of transportation in China. Students from the U.S. and Japan visited there as part of PEN-International's cultural exchange.



Making Connections

by Pamela L. Carmichael

Sharing experience Long-time mentor Marilyn Spampinato, right, chats with student Jenna Nanci about her experiences as a staff assistant.

Today's business world is changing at a record pace, and while executives look for the next big idea in an ever-evolving list of strategies to advance their businesses, one concept has remained a key factor in advancing individual careers. From the earliest of times when apprentices learned trades working under skilled craftsmen, people have furthered their careers with advice and assistance from more experienced individuals in their field.

Today's competitive business environment is no different. Recent college graduates enter the workforce and discover that developing relationships can be a key factor in their success.

"Mentoring is important for career success because it helps people learn about the culture of an organization," says Solange "Sally" Skyer, NTID counselor and associate professor. "It's especially important for deaf people because, unlike other employees, they don't hear conversations in the office that might help them gain an understanding of the unique personality of the organization. They have to develop a relationship with someone they can trust who will help



It's not all work! Students Janell Wagstaff, left, and Crystal Templeton, have fun at an ice cream social for mentors and students.

them learn and move ahead."

Students enrolled in NTID's Administrative Support Technology Seminar course are learning the value of developing professional relationships through a mentoring program made possible by NTID/RIT staff who volunteer their time to provide this important experience. While the course title and activities have changed over time, the mentoring program has remained an important component of the curriculum for more than 20 years.

Skyer co-teaches the course with Mary Beth Parker, associate professor in NTID's administrative support technology program.

"Mentoring can be a real self-esteem builder," says Parker. "It can be very empowering for students when they realize that someone cares about them and is willing to invest the time to help them succeed."

Karina Shumanski, academic coordinator in RIT's School of Photographic Arts and Sciences, has invested in student success as a volunteer mentor for more than six years.

"Mentoring helps students see what the future might look like for them," she says. "It helps them learn some dos and don'ts in office environments."

In the spring of 2000, Shumanski mentored Julia Bohl, who graduated from NTID and now works as a recruitment scheduler in the NTID admissions office.

"Karina helped me learn about workplace ethics and how to better communicate with co-workers," says Bohl. "My mentoring experience gave

me courage and confidence in who I am, and it helped me understand how valuable a mentor can be in my career."

Students meet with mentors for an hour or more each week and engage in a variety of activities. An overall goal of the program is to help them develop appropriate behavior in professional settings. Other goals have a more individual focus and may include things like improving time management or becoming more assertive.



Networking Students and their mentors meet to share ideas and discuss the value of mentoring in career development.

"Each student has different needs and goals, but they all want someone they can talk to and get advice from," says Marilyn Spampinato, staff assistant in NTID's Audiology Department and a volunteer mentor for more than 14 years. "I enjoy sharing some of my experience with them."

And that's really what the program is about—sharing experience and teaching students how to develop professional relationships that foster their careers. It's a timeless concept learned anew each spring as Parker, Skyer, and a host of dedicated volunteers prepare another group of young people to enter the business world and make their mark.

Teamwork Andrew Wagner, left, a second-year new media major who is deaf, teams up with fourth-year graphic design student Keith Harper who is hearing. They are working closely together on a multimedia group project.



Deaf and Hearing Together: A WINNING FORMULA

by Frank A. Kruppenbacher

Added NTID's student body of more than 1,100 deaf and hard-of-hearing young women and men to RIT's population of more than 13,000 hearing students and you have the elements of an important equation. In the formula for success, the value of hearing students sharing classes and extracurricular activities with deaf peers equals an enriched academic and social experience that is individually and collectively rewarding.

When deaf and hearing students study and grow together at RIT, as they have since 1968, unique insights emerge. Lessons are learned, friendships are formed, and barriers—real or imagined—are challenged and conquered. The benefits to both groups transcend their differences.

NTID/RIT's Anthony Brucato, a fourth-year psychology student who is deaf, revels in the deaf and hearing diversity of RIT's campus life. Both of Brucato's roommates are hearing.

"RIT is a lot better place because it has both hearing and deaf people," says Brucato, a native of Williamsville, N.Y.

"My roommates don't know much

sign language, but they are exposed to the deaf community," adds Brucato. "We get along pretty great. It's important to me to bring both worlds together."

Language appeal

During the past 20 years, learning American Sign Language (ASL) has been such a popular pursuit that a 1999 survey by the Modern Language Association (MLA), confirmed that ASL is the most in-demand language offered at U.S. colleges. The exposure of deaf role models in the media and legislative actions ensuring appropriate accessibility for people with any disability has no doubt fueled this interest.

Fourth-year new media design student Callie Sorensen from Des Plaines, Ill., is just one of many hearing students last year who chose to enroll in ASL and other deaf studies courses offered at RIT.

"One thing that instantly interested me when I arrived at RIT was the community of deaf students," says Sorensen. "Since I had no prior experience with sign language, I knew I had to get involved in order to educate myself and break down the language barrier.

"I started watching the interpreter during my classes to try and pick up signs here and there. Then I became a



Relaxing after classes Fourth-year psychology major Anthony Brucato, right, who is deaf, challenges his roommate Jason Kafer, left, a second-year computer engineering technology major who is hearing, to a friendly game of chess, as roommate Kevin Ptak, second-year professional and technical communication major, who also is hearing, looks on. The three RIT students live together in an off-campus apartment.

notetaker for deaf students in courses with me, took a few sign language courses and discovered a great group of deaf friends.”

RIT students like Sorensen who are hearing and interested in learning sign language and studying the culture of people who are deaf, can enroll in a myriad of courses offered by NTID’s Department of American Sign Language and Interpreting Education (ASLIE) and RIT’s College of Liberal Arts. ASLIE faculty, including both deaf and hearing individuals, are certified sign language and deaf culture education professionals.

Lindsay Allington, second-year ceramics sculpture major from Northport, Mich., took her first RIT sign language class the second quarter after she arrived on campus. Allington now has many deaf friends, and two roommates who are deaf, which she says makes her feel more a part of the campus community.

“If you close yourself off to making an effort to communicate with deaf people on this campus,” says Allington, “you are cutting yourself off from an important part of the population here.”

A deeper understanding

Despite the popularity of ASL and deaf studies courses at RIT and on other college campuses, the majority of hearing students do not take these classes, but still manage to effectively interact with their deaf and hard-of-hearing peers.

Second-year graphic design students Jennifer Seaman of Binghamton, N.Y., and John-Paul Cicero of Hemlock, N.Y., each say that they have worked and studied with deaf students in their programs. Although they haven’t taken sign language classes, Seaman and Cicero are benefiting from encounters and interactions with deaf and hard-of-hearing peers.

“Like most hearing students at RIT,” Seaman says, “every day I’m around students who are deaf, and it’s not a problem. Sign language is a different language, but people of different languages and cultures have always found ways to communicate because they want to understand each other.”

“My interactions with deaf students at RIT probably have made me a more accepting person,” adds Cicero. “There

are a lot of different people from all over the world here at RIT. Everybody is different—that’s what makes the world so great.”

While differences in language and culture do exist, deaf and hearing students at RIT find a common ground to grow individually and together. Open-minded hearing students like Tara Parekh, fourth-year new media publishing major from Churchville, Md., keenly see beyond any obvious differences people have toward a sense of shared understanding and unity.

“The true benefit for me as a hearing person,” says Parekh, “is that I learn how other people deal with their world. It’s a great added benefit to my education at RIT to learn so much about someone else, and in the process, learn more about myself.”

Catching up (center photo above) Second-year ceramics major Lindsay Allington, left, who is hearing, takes the opportunity to chat with her friend Leigh McNulty, a second-year fine arts student who is deaf, before Leigh’s ceramics class.

Hitting the Ground **RUNNING**

by Kathy A. Johncox

“**T**his was a great day,” said Mary Ellen Stark, human resource associate at Eastman Kodak Company. Along with representatives from 18 other Rochester-area and out-of-state employers, she spent a busy day talking about jobs with many of the more than 550 deaf and hard-of-hearing students and alumni attending NTID’s job fair last fall.

“There are definitely people here who I would hire, especially for co-ops,” Stark said. “NTID has a great pool of technically trained candidates that Kodak can tap into.”

In a community like Rochester that is internationally known for its technical employment orientation, NTID/RIT’s focus on technological career education makes it a valuable resource for potential employers. NTID also is known nationally for skilled faculty and dynamic career education programs that keep up with rapidly changing corporate and manufacturing worlds.

With the technological pace that many companies are finding themselves in, now, more than ever, the workplace appreciates employees who can hit the ground running. NTID/RIT’s high-tech

programs and state-of-the-art facilities focus on teaching and applying technology that graduates can take straight to the marketplace.

“Just about everything I have learned in my applied computer technology and information technology classes relates to skills I have used in both of my co-op placements,” says Justin Drawbaugh from York, Pa., a fourth-year student majoring in Information Technology. “On co-op as an information

systems technician at Communication Services for the Deaf (CSD) in South Dakota, I was active in establishing the new TTY software on each computer to use through the phone network. I provided tech support as well as training to teach people how to use the new software. I feel that working as a team is an essential part of the employment experience, and I really enjoyed that too.”

Lindsay Buchko, a fourth-year industrial engineering major from Homewood, Ill., agrees. “I was

fortunate enough to have my first co-op experience at IBM’s T. J. Watson Research Center in Yorktown Heights, N.Y. I was assigned to redesign the headband of a prototype wearable personal computer. To do this, I used computer-aided design software and math-based ergonomic studies. The project also involved communicating with the team, and using my presentation skills. The job required all the skills I had learned and developed as a part of my major.”



The sky is not the limit! Intergalactic possibilities exist for NTID grads. Mary-Beth Robie, right, talks with the NASA Goddard representative, center, about her resume. She later received a packet from NASA with a six-page list of NASA-related companies around the U.S. that she could contact for a high tech digital imaging co-op assignment.

Opening Doors

NTID opens doors to employment opportunities by educating employers about NTID students and graduates at events like job and career fairs, and by

partnering with other employment resources. The job fair last fall, co-sponsored by the NTID Center on Employment (NCE) and the New York State Department of Labor (NYS DOL), is

The CD-ROM was distributed to employers who attended the fair to use to search for job seekers with the requisite skills, and then schedule interviews.

NTID's creative networking builds partnerships with employers and keeps them aware of the advantages of hiring well-prepared students and graduates who can step right into high-tech jobs. NCE, department chairs, faculty and alumni all add to the mix by using every opportunity to make corporate contacts.

"If it were not for NTID's relationship with IBM, I probably would not have had the chance to meet IBM employees and the opportunity to get an interview," says Buchko. "NTID gave me access to a great employment network."

Mary-Beth Robie, a third-year NTID digital imaging and publishing major from Vermont, found the job fair a valuable way to get a good start on her job search.

"Many of the companies were technology oriented, and I got a better idea as to what skills they were looking for, how they view resumes and the types of questions they ask. I can be more prepared in the future for what to expect on an interview," she said.

"A lot of effort goes into organizing an event like a job fair," says Vaala. "But the rewards can be huge. Employers are impressed by the caliber and qualifications of the technically trained NTID students. And even though we tell students that their technical training will prepare them for careers in the real world, at an event like this, when they talk with employers, they can really see the opportunities that are out there."

As connections are made and relationships grow, Torres hopes that more employers develop a heightened awareness of the skills and abilities of NTID students. "These students have real marketable technological skills that businesses all over the country are seeking. And businesses talk to other businesses. Hopefully they will network about the great things happening here at NTID."



Old home week At the IBM booth, four lines of students 10 deep showed that interest was keen in the information technology field. Three of the four IBM employer representatives were deaf or hard-of-hearing alumni from NTID/RIT who answered questions and described realistic opportunities for employment in that field.

Here is a sampling of the employers with whom NTID is helping students connect:

U.S. Bureau of Labor Statistics
Defense Contract Audit Agency
Defense Contract Management Agency
Eastman Kodak Company
Educational Credit Management Corp.
Employment World
Goldman Sachs
IBM
Internal Revenue Service
JML Optical
Lowe's
NASA Goddard
New York State Department of Labor
Paychex
Rochester Gas and Electric
Strong Health
U.S. Geological Survey
URS Engineering
WCI (Work, Community, Independence)

one example of the opportunities NTID provides for high-tech students and graduates to connect with employers who require their state-of-the-art skills.

"The job fair showcases the strengths and breadth of disciplines and majors and the strengths of our technically educated students," says Allen Vaala, NCE director. "And it gives NTID faculty, staff and students a glimpse of the needs of businesses and of the job opportunities out there."

"NTID has done an excellent job establishing a high-tech reputation that gains both interest and respect from the business community," says Vilma Torres, Business Services Manager of the Rochester office of the NYS DOL. "Our goal is to bring business and the job seeker together. In fact, for the first time, we are making full use of a new software program that allows us to put copies of the participants' resumes on a CD-ROM."



Aju Cherian

When he completes his studies in Information Technology this fall, Aju Cherian, 25, will be among the first graduates from RIT's newest and largest college—the B. Thomas

PROFILES IN COLLEGE

Golisano College of Computing and Information Sciences.

“My goal is to become a Web or database developer,” says Aju, a native of Bombay, India. “I enjoy designing databases and creating programs to access databases through the Web.”

Aju came to America in 1996 and attended Seattle Central Community College, graduating with an associate degree in art in 1998. After briefly attending a university in California, he came to RIT.

“Compared to the West Coast, the costs for me to attend RIT are more reasonable,” says Aju. “Also, RIT's co-op program helped me gain work experience related to my major.”

For his co-op jobs, Aju worked for the Federal Aviation Administration National Aeronautical Charting Office where he performed several tasks for database development using specific programming languages.

“RIT has given me the best education in the world,” says Aju. “I encourage other deaf high school students to study and work hard in school. I would like them to have the same wonderful opportunities I have at RIT.”

Mandy Clatterbaugh

One of RIT's strengths is how well it blends technology with traditional academic pursuits like business and produces graduates with high-tech skills for today's computer-based society.

Now in her third year in RIT's Management Information Systems (MIS) program, Mandy Clatterbaugh, 21, of Churchville, Va., enjoys the challenges she encounters as she studies how business processes and information processing systems support an organization.

“MIS satisfies my interests in math, computers, and business,” says Mandy. “I am learning that it often takes a variety of business and technology applications to help organizations meet their goals.”

Mandy finds campus life at RIT equally satisfying and rewarding. As a member of Alpha Sigma Theta, Mandy says that she cherishes the many friendships made among her sorority sisters as they support each other in their studies at RIT.

“The sisterhood is strong,” says Mandy. “We strive to do well in our majors, and we hold events to raise money for worthy causes. It's important that we take from RIT the knowledge we'll need for our careers, while giving our energies to support the community. In that way, we all grow and thrive.”



Patrick Graham

Third-year psychology major Patrick Graham, 22, of East Grand Rapids, Mich., is a member of RIT's diving team.

The 1- and 3-meter springboard Tiger standout rose to several first- and second-place finishes in diving competitions this season against leading universities in the NCAA's Division III Empire Eight Conference. At the 2002 Upper New York State Collegiate Swimming Association Championships, Patrick captured fifth-place in low board and third-place in high board events. He's been diving competitively since high school where both his interest in the sport and the study of psychology began.

“I got interested in psychology because my high school diving coach was a psychology teacher,” he says, “and we had many talks during and after diving practice. He got me interested in pursuing psychology in college.”

Another positive force in Patrick's life is his family. He gratefully credits his parents, his mother, Linda, in particular, with his decision to come to RIT.

“My mother was a big influence,” says Patrick. “She wanted all of us kids to get a great education.”

Patrick is a member of Sigma Nu International Fraternity and the RIT/NTID Dance Company. His goal is to become a teacher of deaf students.

“I chose RIT because it has a wonderful diversity of both deaf and hearing people, student activities, and great support services. I like it here because people of different backgrounds all come together to learn in a constructive setting.”

Kelly Leniz

As a student at New York School for the Deaf, Kelly Leniz, 25, of Brooklyn, N.Y., was guided by the inspiring words of Dr. Robert Davila, the school's headmaster, a position he held before becoming NTID's vice president in 1996.

"Dr. Davila told us, 'Make the play first, then protest the umpire's call,'" Kelly recalls. "What he meant by this was, reach your goals and finish your education and then become an activist afterward."

Kelly already has reached one important goal, graduating from NTID's Digital Imaging and Publishing Technology program last February. Her next goal already is in sight as she starts her baccalaureate studies in RIT's Graphic Media program this fall.

Kelly is a student assistant in NTID's Career Resource and Testing Center and a peer mentor for African American, Latino/Hispanic, Asian American, and Native American students at NTID/RIT.

"I like that I am actively involved in my own college education and helping other students as well," says Kelly. "Like Dr. Davila, my mother also inspires me to always do what's right. I recall her saying to me, 'Be a fighter, and be somebody. Don't let anyone tell you what they want you to be.'"



Sonja Johnson

To be successful, Sonja Johnson believes, "You must follow your heart and don't let anyone tell you what to do with your life."

She comes from Toronto where she attended a mainstream high school and grew up not knowing much about deaf culture. She wanted to know more.

"Because of a wonderful counselor who took a personal interest in me, I began to feel that NTID was the place for me, and joining the NTID Student Congress in 1999 made me feel even more a part of things," Sonja says.

Software engineering appeals to Sonja's penchant for puzzle and problem solving, and spare time finds her involved with her sorority, Sigma Sigma Sigma. Last year she worked as a Student Development Educator on NTID's Student Life Team and prior to that was a resident assistant working with the "Explore Your Future" program. These might have been paying jobs for Sonja, age 20, but helping others find their way is something she strongly believes in. After graduation in 2005, she intends to pursue a master's degree.

"My major is challenging, but the professors and the other students in my classes make it worthwhile," says Sonja, "I know that NTID/RIT will prepare me for the real world and help me learn more about myself."



Alice Lo

Originally from Indonesia, Alice Lo moved to Canada when she was eight years old. She attended several mainstream schools in Toronto and spent a year in an adult continuing education program, where she worked to improve her English skills before starting college.

Alice studied liberal arts at a Toronto university, but wasn't happy being the only deaf student on campus, so after one year, she transferred to NTID/RIT to pursue her interest in photography—an interest she says she inherited from her father, a professional photographer.

Now in her second year at RIT, Alice says she couldn't be happier. She is currently majoring in photojournalism and considering changing her major to advertising photography.

Alice chose RIT because of the quality of its photography programs and because of the diversity of the student body. She enjoys the deaf community on campus and the many programs and activities available.

"RIT has a good reputation," says the 21-year-old, who has been on the dean's list every quarter since coming to the school, "and I am proud to be a student here. I love to walk around the campus and see the many different people, taking creative pictures as I go."



Pascal Mutabazi

Pascal Mutabazi is a happy man. At age 32, he has found his educational home at NTID/RIT, and he came a long way to do it— all the way from Uganda, East Africa. Pascal, one of eight children, was

PROFILES IN COLLEGE

born hearing, but because of an overdose of a malaria drug at age 10, he became deaf. He was the only deaf student out of 500 in a high school with no interpreters and no special support.

“Starting college seven years after high school, I am a ‘comeback kid.’” says Pascal, who expects to graduate in four years with a social work degree.

“Social work allows me to connect with people, which I love, and to deal with issues and problems in their lives, like discrimination on grounds of deafness, anti-women bias, poverty and family issues,” he says.

Pascal earned a 4.0 GPA last winter and is grateful to mentors on the social work team for their help. He feels, after his long journey, that “NTID/RIT is the right college with the right career guidance to prepare students to choose the right work in the right places.”

He plans to get his Ph.D. and become a professor so that he can fulfill a long-standing commitment he made to share knowledge through service to others. “Pass on what you know,” says Pascal, “or else you will die with it.”

John Nemeth

Playing the lead role of “Tony” in NTID’s production of *West Side Story* wasn’t a stretch for NTID/RIT senior John Nemeth. John’s personal hopes for the future also are high. He graduates this year with a bachelor’s degree and a strong belief that “success is not money or fame, just happiness.”

He selected NTID/RIT because of its reputation and the support services available and says, “I knew that the size of the deaf population here would involve me more in the deaf and hard-of-hearing community, and with so many majors, I knew I would find something that interested me.”

This 24-year-old from Loveland, Colo., chose his Professional and Technical Communication major because it appealed to his interest in writing.

Stints as an officer of the Sigma Nu fraternity, roles in NTID’s theater productions and earning a Nathaniel Rochester Society Scholarship for outstanding academic excellence have kept John’s schedule full.

“NTID is a great place to find other people with similar experiences and frustrations,” he says, “but you also need to be dedicated and prepared for a lot of work.”

As John considers his next move, to Washington, D.C., or maybe Seattle, he takes with him a favorite quote from Alfred Lord Tennyson—“to strive, to seek, to find, and not to yield.”



Annemarie Ross

“I never imagined my life without a college degree,” says 19-year-old biochemistry major Annemarie Ross from St. Clairsville, Ohio. Annemarie has a brother and two sisters, one of whom also attends NTID/RIT and is a business major.

“My parents encouraged and supported me in whatever I wanted to do,” she says, and the phrase “whatever I wanted to do” in Annemarie’s world means doing a lot.

In addition to being on the Dean’s List, she appeared in a student-directed play and with the RIT Players in *You Can’t Take It With You*. Annemarie proves you can take it with you if it is enthusiasm for where you are and what you are doing.

“This is a great environment,” she says. “Students are very friendly and the professors are so accessible.”

She is active in RIT’s Leadership Education and Development (LEAD) program and is a scholarship recipient. A co-op placement last summer sent her to the University of Michigan’s Kresge Hearing Research Institute where she participated in research on quality improvement for cochlear implants.

Her goals? One possibility is graduate school after getting her bachelor’s degree in 2004. Her advice for prospective students:

“Take advantage of every opportunity. There are so many here.”

Danielle Marie Rogers

The first time Danielle Marie Rogers watched a wrestling match, she was hooked.

"I was completely fascinated," says the 20-year-old from Abington, Mass. "I just sat there analyzing all the moves."

She was so taken with the sport, that Danielle tried out and won a place on her high school wrestling team, where she was the only woman to compete.

"I love wrestling because it makes me feel strong and confident," she says.

Danielle brought her passion for wrestling to college, breaking ground as the only woman to try out for the RIT wrestling team last year—and breaking her finger in the process. Disappointed, but undeterred by the injury, she plans to try out again next year.

For now, she's concentrating on her studies as a second-year Accounting Technology student. After completing her associate degree, she plans to enroll in RIT's Social Work program.

"I have always wanted to help people, especially deaf people," she says. "My accounting background will provide a good foundation in money management and budgeting that will help me to help others in my social work career."

When she's not studying, Danielle likes to write poetry. Next year, she plans to work on the Student Life Team and as an alternate resident advisor.

"There are so many opportunities to try new things," she says of NTID/RIT. "I know the experiences I'm having here will help prepare me for the future."



Tony Wallace

The wrestler with the biggest impact for the Tigers this season, with 29 wins and only seven season losses, is 184-pound, three-time All-American Tony Wallace of Franklin, Ohio.

The 24-year-old wrestling team tri-captain returned to the mats this year and went straight to the top of his sport after taking an important time-out last season to complete a co-op with Nestle USA in Connecticut.

"I like wrestling," says the Packaging Science/Management major in RIT's College of Applied Science and Technology. "At the same time I have to get ready for my career after RIT, so I took a year off to co-op."

The four-time collegiate state placer and three-time NCAA All-American showed perseverance in the final weeks of the 2001-2002 season, as he overcame a knee injury and ankle sprain to wrestle in the NCAA Division III championships. In 2000, he went 27-4, finishing second in the state. In 1999, he took seventh in the 174-pound weight class, scoring victories against wrestlers in all three national collegiate wrestling divisions. In his 1998 debut season, and again in 2000 and 2002, Tony earned first place in NCAA wrestling qualifying meets.

"People said that I couldn't go to college because I was deaf," Tony says, "and that I couldn't finish my wrestling career because I was injured. I proved to them, and to myself, that I could do both. Now I'm ready for any opportunity that comes my way after graduation."

U-Wen Wong

"Knowledge is powerful," says 30-year-old U-Wen Wong. "Embrace it so that you can help people."

A fourth-year student majoring in social work, one of U-Wen's goals is to work with deaf and hard-of-hearing and disabled refugees from war-torn countries.

"Deaf and hard-of-hearing refugees need someone who understands their language and their issues," he explains. "I want to be the person to help them. I have food, clothes, shelter, and education. I want to give something back to help other people improve their lives."

Born in Singapore, U-Wen came to the United States when he was 15 years old so he could attend American School for the Deaf. When it was time to think about college, he researched many schools and chose NTID/RIT because of the support services available for deaf students and because he feels the mix of deaf and hearing students on campus is beneficial to his personal and professional growth.

"RIT really offers the best of both worlds," he says.

U-Wen is a member of the Asian Deaf Club and the Dean's Leadership Advocacy Group. He has received numerous awards and scholarships, including the Outstanding International Student Award and the Robert F. Frisina Endowed Scholarship. This year, he completed a two-quarter internship at the Center for Disability Rights in Rochester where he was involved in advocacy and case management.



Anyone who has ever struggled through algebra or physics, barely survived a history class or been driven to frustration attempting to identify dangling modifiers and split infinitives knows that some academic subjects are more challenging than others. For deaf and hard-of-hearing students who have difficulty with some of their courses at NTID/RIT, help is available. NTID has developed a unique array of tutoring services that provide the extra assistance some students need. Among them are two highly successful yet very different programs—one offers assistance to students who want to improve their English skills and the other provides support to students pursuing bachelor's degrees at RIT.

Extra Help with English

“Some deaf students have a hard time with English because it's a difficult language to learn, and trying to learn

it when you can't hear it is especially difficult,” says Margy Brophy, assistant professor in the NTID Department of English.

If students need help in English classes but are too shy to ask or reluctant to go to a faculty member, they have another option in NTID's English Peer Tutoring program.

“This program actually grew out of student requests,” says Brophy, program coordinator. “The students themselves saw value in communicating student-to-student and advocated for a program of one-on-one tutoring by deaf peers.”

Peer tutoring is an attractive option because the tutors know the experience of having struggled with English from a deaf person's point of view. And they are excellent role models: smart, successful, high-achieving deaf students who

portray a you-can-do-it-too image. Their goal is to encourage students to find their own skills and develop confidence.

“We make it very clear that the peer tutor is there to help the student understand assignments, assist with reading comprehension questions and explain concepts,” Brophy says. “The focus is on instruction, not ‘fixing’ assignments.”

The 10 peer tutors in the program this year all fulfill the program's rigorous requirements. They are Dean's List students who have strong English reading and writing skills, have earned A's in their own English requirements, and have been recommended by two faculty members.

Learning

How to

Learn

By Pamela L. Carmichael
and Kathy A. Johncox





Individual attention Students benefit from one-on-one interaction with faculty tutors. Pictured here at right, second-year Fine Arts major Leigh McNulty reviews class material with Assistant Professor Sidonie Merkel Roepke.

Without peer tutoring, many students feel they would have a much harder time with English assignments.

"It's very frustrating for many students," says fourth-year biology major Amber Marchut, who has been a peer tutor since the project began three years ago. "And they want to improve quickly."

The program offers students the advantage of walk-in sessions or they can have an assigned tutor who works with them one-on-one throughout the quarter. Last year, English peer tutors logged an estimated 260 hours in tutoring services.

Marchut has worked with students who were very motivated to have a tutor, but who initially didn't realize how much work they would be expected to do. However, they ended up being extremely proud that they had done so much better in their English courses.

"One student was having trouble with a poem," Marchut recalls. "We went over it together and talked through it. He came back from class very excited because he actually felt smart."

"I love being a peer tutor," Marchut continues. "I like helping people, and I like seeing them improve and seeing their confidence grow. Success is so important."

Student to student NTID's peer tutors meet regularly to discuss strategies for helping their fellow students.

"The tutor often serves as mentor and role model, and the one-on-one interaction helps the student develop more effective study habits and greater confidence in his or her ability to work more independently."

Warren Goldmann, Associate Professor,
NTID Science and Engineering Support Department

Specialized Support = Better Than Average Success

Because academic success is so important, NTID has developed another unique system for providing tutoring support to the more than 450 deaf and hard-of-hearing students who cross-register through NTID into one of RIT's seven other colleges. This specialized attention from tutors translates into real success for students. At four-year colleges across the United States, the average graduation rate for hearing students is 46 percent and for deaf students is 35 percent. In contrast, deaf students in bachelor's degree programs at RIT graduate at a rate of 63.3 percent. This success is even more remarkable given RIT's rigorous academic requirements.

"The RIT learning environment is fast-paced," says Peter Lalley, director of NTID's Center for Baccalaureate and Graduate Studies (CBGS). "Our quarter system can be daunting and the courses difficult. Faculty tutors can help clarify material students might not fully grasp so that they don't fall behind."

Last year, CBGS supplied more than 13,700 hours of tutoring and advising for students. Part of what makes the CBGS concept unique is that the center offers an extra layer of faculty dedicated to supporting students. CBGS provides academic support departments staffed by faculty members who have expertise in the academic subjects taught within each of RIT's colleges. These faculty members are able to amplify and clarify difficult concepts. They review classroom notes with students and design and develop

materials such as study guides and practice tests that further help students master course material.

"Many students arrive at RIT and find that the course content is so cutting-edge that it can't be found in a textbook," says Sidonie Merkel Roepke, assistant professor with NTID's Imaging Arts and Sciences Support Department and tutor for 18 years. "There is no other information that students can refer to other than what is presented in class or lab. Tutoring provides an opportunity to dissect the course material with the student and, through dialogue, find out what areas need to be clarified."

Each CBGS faculty member provides 20 or more hours of tutoring and advising each week. Because faculty members work with students one-on-one or in small groups, they can address the individual learning needs of each student.

"For some students the personal interaction involved in tutoring can be a powerful motivator," says Warren Goldmann, associate professor with NTID's Science and Engineering Support Department and tutor for 34 years. "The tutor often serves as mentor and role model, and the one-on-one interaction helps the student develop more effective study habits and greater confidence in his or her ability to work more independently."

Giving students the extra help they need to master course material and develop independent learning skills is the goal of all of NTID's tutoring programs. The unique features of both the English Peer Tutoring Program and CBGS tutoring services help students learn how to learn, and when that happens, they gain confidence in their abilities and feel empowered to succeed.

New Degree Program Responds to National Need

by Kathleen S. Smith

NTID historically has been a leader in interpreting education, having established the world's first interpreter education program in 1969. This fall, the college will tweak the recipe of its successful associate degree program by offering a new bachelor of science degree program in American Sign Language (ASL)-English Interpretation. Mixing the ingredients of specialized training, practical experience, challenging coursework, and experienced faculty members, the program—which offers two more years of study after the associate degree program—is designed to meet the increasing demand nationwide for interpreters with more advanced skills.

“Never before have so many deaf people been in college or in graduate-level programs,” says Linda Siple, associate professor in NTID’s Department of American Sign Language and Interpreting Education. “We need interpreters with advanced degrees to work in these settings as well as in the communities where these individuals live and work.”

Janet Bailey, president of the Maryland-based interpreter business Sign Language Associates (SLA) and past president of the national Registry of Interpreters for the Deaf, is happy to see the addition of a bachelor’s degree option at NTID.

“The consumer base for interpreting is changing dramatically,” she says. “When SLA interpreters work with the National Institutes of Health in Washington, for example, they must have a general knowledge of topics as diverse as physics, biology, medicine, politics, and English. They don’t need an in-depth knowledge of a particular subject matter, but they need to understand the gist of the speaker and know how to learn more about the subject if necessary.”

While interpreters from two-year programs generally are well qualified, Bailey says the extra two years of study expands students’ knowledge in both general and specialized academic



Working together Assistant Professor Christine Monikowski, standing, works with students in the interpreting program as they review a videotape they created for a homework assignment in NTID's interpreting lab.

subject areas and makes them even more appealing job candidates.

No one disputes the increasing demand for interpreters with such skills. In the mid-1970s, federal legislation addressed the interpreting needs of deaf students at the K-12 and postsecondary levels. In the 1990s, the Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act (IDEA) further widened that demand to include many public settings. The result? A huge increase in requests for interpreters nationwide.

Since 70 percent of those requests are

“Our unique environment is perfectly suited to interpreter education,” agrees Dr. Rico Peterson, chairperson of the Department of American Sign Language and Interpreting Education. “We have 1,100 students and 85 faculty and staff members who are deaf. Rochester has one of the largest, most active, and diverse deaf communities in the nation.”

Ironically, it's the lure of mid-sized Rochester that drew Big Apple native Jeanette Moscoso to the bachelor's degree program. Moscoso, who relocated to Rochester two years ago to enroll in the associate degree program



Nathan Herring

The program attracts all ages. Many older students look at educational interpreting as a viable job option while raising a family, since most positions require work only during school hours.

Many will be prepared to seek professional certification, which enhances salary prospects. Several states already require interpreters to be certified to work in K-12 settings.

As the demand for interpreters to work in advanced settings continues to grow and deaf consumers seek interpreters with better skills, NTID's new degree program is the natural “next step” to remain at the forefront of the profession.

“Having my resume read ‘bachelor of science’ will hopefully increase my chances of getting the job I want,” says Herring.

And those jobs are plentiful and varied, says Siple.

“Interpreting is demanding both physically and mentally,” she explains. “But it's always new and exciting. In one day, an interpreter may go from a board meeting to a childbirth education class to a class on welding and then to a group therapy session. Interpreting is the best job in the world.”

Editor's note: For more information about the new bachelor's degree program, contact NTID's Department of American Sign Language and Interpreting Education at www.rit.edu/NTID/ASLIE or call 585-475-6809 (v/tty).

“Never before have so many deaf people been in college or in graduate-level programs. We need interpreters with advanced degrees to work in these settings as well as in the communities where these individuals live and work.”

Linda Siple, Associate Professor

NTID Department of American Sign Language and Interpreting Education

based in educational settings, NTID's bachelor's degree program is particularly attractive to students interested in a high-demand program with exciting job possibilities.

Nathan Herring, 27, of Mesa, Arizona, will begin the program this fall, after just receiving his associate degree in ASL-English Interpretation.

“I want to get a more in-depth understanding of interpreting,” says Herring, “and I know that I'll learn that here. What might take me five years to learn working as an interpreter in the field may only take me two years to learn in this program.”

Herring moved to Rochester in the late 1990s after receiving his bachelor's degree in psychology from Arizona State University. Encouraged by deaf friends to pursue a career in interpreting because of his motivation and enthusiasm for deaf culture, Herring decided that NTID was the ideal place for him.

in interpreting, has no plans to leave Rochester after she gets her degree.

“Interpreters have so many options here,” she says. “Mental health settings . . . classroom work . . . professional office settings. It's one of the best cities in the country for deaf people, and for interpreters.”

Moscoso will have a chance to apply her existing interpreting skills to a more challenging specialty area in the bachelor's program, where she may work one-on-one with a professional interpreter in a school or community setting. NTID alone has more than 100 professional interpreters on campus; more than 300 additional interpreters work in the Rochester community.

Peterson says that the small number of students in the bachelor's degree program—only 20 each year—and the many resources available to them will help ensure that “our graduates are among the best trained interpreters in the nation.”



Technology in action A captionist dictates classroom lectures into a computer that uses software to convert voice into written text for students.

Spencer Foundation Supports High-Tech Talk

by Kathy A. Johncox

More than 25 years ago, science fiction television shows like *Star Trek* introduced the general public to computers that recognize voice commands. Now computers that recognize voice are used in classrooms to bring lectures and classroom discussions to deaf and hard-of-hearing students.

Thanks to the Spencer Foundation based in Chicago, Ill., research into adapting speech recognition technology to support deaf and hard-of-hearing college students in mainstream classrooms is taking the technology to a new level. This

project probably would have appealed greatly to Lyle Spencer, who established the foundation and who, until his death in 1968, was the president of Science Research Associates, Inc., an educational publishing firm. Mr. Spencer directed that the foundation exist to support research that investigates ways to improve education around the world.

To achieve this goal, the foundation is committed to supporting high quality research on education through its research programs, and to strengthening and renewing the educational research community

NTID—An Outstanding Investment in the Future

NTID's primary mission is to provide deaf students with outstanding state of the art technical and professional education programs that prepare them to live and work in the mainstream of a rapidly changing global community. NTID also prepares professionals to work in fields related to deafness; undertakes a program of applied research designed to enhance the social, economic and educational accommodation of deaf people; and shares its knowledge and expertise through outreach and other information dissemination programs.

Because of all this, NTID has earned a national reputation for developing high-tech solutions to improve higher education for deaf and hard-of-hearing students. These innovative solutions are supported by friends and donors who consider NTID an excellent investment.



History Lesson

Karen Conner and Harry Lang, long-time NTID faculty members, seated on the left in the photo above, agreed to write a history of NTID, and after years of research and putting fingers to computer, *From Dream to Reality* was finished. It tells the history of NTID as well as explains its place in the history of deaf education. At a recent event for donors, Conner and Lang enjoyed signing copies and talking with guests about the process of creating the book and about the history of this unique institute.

NTID Research Update

NTID research programs seek to address critical issues facing deaf and hard-of-hearing young people. A combination of the technical resources made possible by the generosity of foundations and corporations, and the human resources of NTID faculty, staff and students has made NTID a leader in research and development in higher education for deaf and hard-of-hearing students. The following is a list of just a few of the research projects currently underway:

TEACHING AND LEARNING

- Postsecondary Education Network International (PEN-International) Project (See article on Page 4.)

TECHNOLOGY INTEGRATION

- Evaluation of Real-Time Systems for Converting Speech to Print (C-Print)
- Speech Recognition as a Support Service for Deaf and Hard-of-Hearing Students: Adaptation and Evaluation (See article above.)

through its fellowship initiatives.

“Speech Recognition as a Support Service for Deaf and Hard-of-Hearing Students: Adaptation and Evaluation” is the title of the research project the foundation has funded at NTID. Dr. Michael Stinson, principal investigator on the project, and his research team have spent the last several years experimenting with automatic speech recognition software in order to develop a support service that better matches the classroom needs of many deaf and hard-of-hearing students in public school and postsecondary programs.

The goal is to create a practical tool that enables students to function more effectively in the classroom.

“Students in mainstream classrooms have different communication needs,” says Stinson, “and providing support services that are best tailored to the needs of each individual gives students the best possible

chance for learning and participating—and we all know this translates into success.”

Voice recognition classroom support works like this: During class, a captionist dictates the professor’s lecture and classroom comments into a computer equipped with the speech recognition system, using a device called a dictation mask. This device muffles the captionist’s voice so the class is not disturbed. The computer is trained to recognize the spoken words and translate them into written words that appear on the deaf or hard-of-hearing students’ computer screens in real time, that is, as the words are being said. Students read what is on the screen and know what is being said in class. In addition, the system’s software enables students to participate in the class by typing questions to the professor and taking notes on a laptop computer as they view the text display. They also can save the classroom discussion as a text file and make a copy of it.

Stinson and his research team have made remarkable progress in exploring the potential to adapt current and evolving speech recognition technology to the advantage of deaf and hard-of-hearing people. “We think that automatic speech recognition could become more widely used than other speech-to-text services that currently support mainstreamed deaf or hard-of-hearing students,” says Stinson. “Automatic speech recognition appears to be easier to learn and more cost efficient than other systems.”

The Spencer Foundation has a national reputation for being a strong supporter of innovation in education. The foundation believes that the best scholarly work is accomplished by persons who have the imagination to conceive or recognize an important research idea or problem, who have the professional skill to pursue it and who possess the energy and commitment to bring the project to a successful conclusion.

Dyer Arts Center Update

During its inaugural year, the Joseph F. and Helen C. Dyer Arts Center hosted some exciting and thought-provoking exhibits. Dyer Arts Center offerings during the academic year 2001–2002 included work from the Arena Group, computer graphics and paintings by NTID/RIT alumna Nancy Oyos Rourke, and a pictorial exhibit of digital color photos by Tom Policano, associate professor in NTID’s Digital Imaging and Publishing Technology department. Finishing out the year were painting and sculpture by Len Urso, professor and RIT Ann Mowlis Endowed Chair for Contemporary

Crafts, the School of American Crafts Senior Wood Show and the NTID Student Honors Show.

Thanks to the deaf and hard-of-hearing artists whose work comprised the opening exhibition of the arts center. The work of these artists broadens the view of the

world for our students and for the community at large.

Joseph and the late Helen Dyer contributed both vision and financial support to create this arts center as a resource and an inspiration to the Rochester community. An artist herself, Helen Dyer knew the importance of art to a well-rounded life. Since Mrs. Dyer’s death last fall, her husband has continued their shared vision.

The Dyer Arts Center is open to the public Monday through Friday, 9:30 a.m.–4:30 p.m.

NTID Project Initiatives

The following foundations and individuals provided financial support for NTID projects and initiatives:

- The AT&T Foundation contributed to the development of a Web site for the NTID Center on Employment.
- Glover-Crask Charitable Trust supported cochlear implant testing equipment.
- The Nippon Foundation continues to support the Postsecondary Education Network International (PEN-International) Project.
- The Joseph F. and Helen C. Dyer Arts Center was made possible by contributions from Mr. and Mrs. Joseph Dyer, Mrs. Ray Ohringer, and Mrs. Elizabeth Williams.

Scholarship Funds

Scholarships were established by the following individuals, families or foundations to encourage deaf and hard-of-hearing students to apply to NTID and to support their education while they prepare for a career:

- Ann Wadsworth Frisina Memorial Scholarship Fund
- The NTID Alumni Association Scholarship Fund

Foundations that contributed to NTID Endowed Scholarship Funds:

- The William Randolph Hearst Foundation
- Jephson Educational Trust
- Solon E. Summerfield Foundation
- The Louis S. and Molly B. Wolk Foundation

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Ellen Hibbard

The study of biology delves into the most fundamental aspects of life's processes.

Scientists like Ellen Hibbard, a 1997 graduate of RIT's College of Science, reach beyond their sphere of knowledge in biological sciences, using data and applying techniques of engineering to solve problems they observe in living organisms. In this way, the important work of genetic engineering, or biotechnology as it also is known, manipulates genes—the building blocks of life itself—to protect and improve human health, the environment, and the food supply for today and generations to come.

"I love scientific research," says Hibbard, 29, a native of Horseheads, N.Y. "I always enjoyed doing science projects in grade school, and when I was

12 years old, I decided I would become a scientist and be the best I could be in my chosen field."

After RIT, Hibbard studied Neuroscience at the University of Michigan and worked at the Kresge Hearing Research Institute in Ann Arbor for three years. In 2000, she became a research assistant in structural protein biology at Yale University and later transferred to West Haven Veterans Administration Hospital in New Haven, Conn., where she helped develop genetic screens for mutations associated with depression and alcoholism.

Today, she's back in Rochester, N.Y., pursuing doctoral studies in cellular, molecular, and developmental biology at the University of Rochester. In her first year, she taught two freshman biology lab sections, took courses, and worked

various rotations in biology faculty research labs.

"I use an interpreter and a notetaker in classes I take," says Hibbard. "In labs I teach, I use my voice and speechreading skills, with overheads and handouts. Occasionally, I ask a hearing undergraduate assistant to verbally repeat main points to the class. In lab rotation, I voice, read lips, and teach sign to my colleagues."

Hibbard expects that hearing people with whom she's in daily contact will meet her part way in the communication process. She keeps a journal of her experiences and believes that as she achieves her goal of doctor of biology, she can show others that a profoundly, pre-lingually deaf person can contribute knowledge and talents in the highest ranks of the world of science.



"I am an ambassador for people in two worlds," Hibbard says, "opening channels of communication and understanding among my fellow scientists, so deaf and hearing people can enter into and work together in the world of science."

Daniel Mellott



Like notes in a musical score, Daniel Mellott's talents for piano performance reached a crescendo in 1995 when he began bachelor of music studies at the Eastman School of Music, in Rochester, N.Y.

Knowing vaguely at the time that Rochester was home to a large deaf community, Mellott's curiosity led him into an elective course in American Sign Language (ASL).

"Soon after that course started, my gut kicked in," Mellott says. "It was telling me that I had to leave music. I had stumbled into a wonderful new world that later would have a profound impact on my life."

Mellott considered taking a temporary leave from Eastman or continuing while also studying ASL-English interpretation at NTID/RIT.

"As I learned more about the deaf community, I found myself in a better place, where I was much happier and not really missing music too much," recalls Mellott.

He applied and was accepted into NTID's interpreting program in 1998. During his two years

in the program, Mellott worked at a group home for deaf, developmentally disabled individuals in Rochester. He also was a student interpreter for NTID's Department of Interpreting Services, a member of the Interpreting Club, and explored freelance interpreting jobs in the community.

After graduating from RIT with highest honors in May 2000, Mellott continued working in the Rochester community as a professional interpreter until September, when he relocated to Washington, D.C., and joined an interpreter referral agency as a full-time staff member.

Earlier this year, he left his full-time staff position to pursue a wider range of professional interpreting opportunities in the deaf community.

Always mindful that he is working for others, Mellott

believes that he is successful at what he does because he enjoys deaf people and sign language and is passionate about continually developing his skills.

"To be part of the process that allows people to have access to information in order to live their lives the way they want is very satisfying to me," Mellott says.

"I love it when I see people take control of their own lives and do what they want to be doing."

To students at NTID who hope to join Mellott in the field, he says that the profession needs more interpreters who have good skills and great attitudes.

"By exploring the language and diversity of people who are deaf or hard of hearing," says Mellott, "you may discover, as I did, that everything they have to offer makes the world an extremely rich place."

Mary Therese Hamilton

Some 4,500 NTID/RIT graduates, live in the nation's biggest cities and smallest towns. Some have jobs with major corporations, government agencies, or companies with only a modest workforce. As they draw from skills and knowledge gained at RIT, their careers mature. In turn, their involvement and contributions to their communities grow, and each graduate proudly includes himself or herself as another thread, neatly woven into the tapestry of America.

It is within the fabric of pastoral communities like Greenville and Transfer, Pa., that NTID/RIT alumna Mary Therese Hamilton is right at home.

"When I was a little girl growing up on my family's farm in Transfer," Hamilton, 42, recalls, "the hardworking lifestyle and

the care and support of both my parents allowed me to discover the art that was all around me. That part of my upbringing has been a source of artistic inspiration and creativity ever since."

She followed her creative interests in art from grade school through high school and into RIT's graphic design program, graduating in 1986. Returning to her hometown, she worked full-time for a manufacturer of specialized industrial shipping container products.

"I was laid off from my job in 1991," says Hamilton. "This gave me the opportunity to return to RIT for a master of fine arts in computer graphic design."

Hamilton's homecoming after her second graduation from RIT in 1993 landed her the position of computer graphic artist for Werner Company in Greenville, Pa., one of the nation's leading

manufacturers of fiberglass, wood, and aluminum ladders, platforms, and climbing equipment.

"My work environment is busy and challenging," she says. "There's more to designing images of Werner products for magazine ads, posters, and brochures than most people think. There's never a dull moment.

"I do not let deafness stand in the way of achieving my goals and dreams," adds Hamilton. "When people talk too fast or not clearly, I tell them about my deafness, and we work together. In our work environment, my so-called 'handicap' is not a barrier."

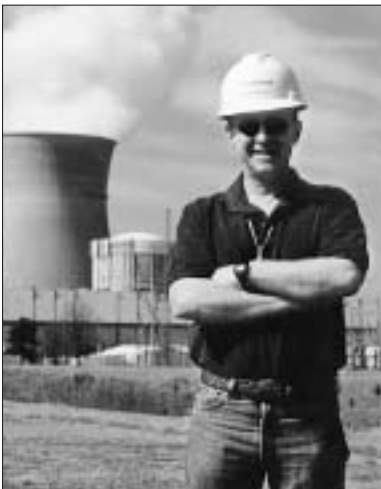
As a mother of two, Hamilton's artistic expressions outside of her work recall her upbringing



on the family farm. She enjoys a penchant for cooking and canning fruits and vegetables for her family and doing arts and crafts projects for friends and relatives, and with members of her church.

"I use the skills I gained at RIT everyday," says Hamilton. "I live my life to its fullest and enjoy my family and my work, thanks largely to the wonderful education I received."

Carel Dunaway



Technology has changed dramatically since 1971 when Carel Dunaway, of Russellville, Ark., first pursued his interest in drafting in high school.

"There were no calculators, computers, or other advanced

technology when I started," Dunaway, 48, recalls.

With little more than lead pencils, mechanical pens, templates, and parallel bars, Dunaway blended his love of art and drawing with his fascination for technology.

After high school, Dunaway attended another college, but desiring a higher level of technical studies, he enrolled in NTID's Architectural Technology program. He spent summers in his home state of Arkansas working for the Army Corps of Engineers as a drafting and cartographic aide, and as a support and maintenance crew member for Arkansas Power and Light Company (AP&L). In 1979, Dunaway graduated from RIT and returned to work at AP&L.

"One day—out of the blue—

a co-worker asked me what degree I had from college," says Dunaway. "A few days later I was told that someone from the company's nuclear power plant wanted to interview me for a drafting job."

During the interview, Dunaway was asked if he would be afraid to work at a nuclear plant.

"I told them I would not be afraid to work there," he asserted, "just in the same way that I wasn't afraid to drive a car. The next day I was hired."

Today, Dunaway is a drafting/CAD technician at Arkansas Nuclear One, a nuclear power plant producing electricity for power company Entergy Arkansas, serving 643,000 customers across the state. He prepares or revises piping and instrument diagrams, piping isometrics (three-dimensional

views), mechanical and civil engineering drawings, and electrical schematic and connection diagram drawings.

Dunaway is involved in the Arkansas Association of the Deaf, Arkansas Deaf-Blind Community, Arkansas Registry of Interpreters for the Deaf, and Fort Worth Regional Schools for the Deaf Alumni Association. From the small town of Russellville, he reaches out to strengthen the bridge between the deaf and hearing worlds for people who share common dreams and goals.

"NTID gave me two important things," Dunaway says. "It gave me technical skills for the wonderful job I have today, and it gave me the desire to help make the community I live in a better place. Both take hard work, but the rewards are tremendous."

Course Encourages Cultural Exchange

by Pamela L. Carmichael

“**W**hen I think about what makes ‘The Black Experience’ unique, it’s the diversity of the students in the class,” says Assistant Professor Catherine Clark. “It’s exciting to see all of these young people of different backgrounds interested in learning about black history. The diversity makes for some interesting group dynamics.”

Offered since 1996 at NTID, “The Black Experience” course traces the founding of Black America from its origins in Western Africa to present day. Class discussions, research, and presentations help students gain an understanding of the impact of history on modern-day relationships between the black population and other cultures in the United States.

Clark co-teaches “The Black Experience” with Assistant Professor Kathy Davis, who developed the course in 1996 with Dr. Shirley Allen, an associate professor in NTID’s Department of Cultural and Creative Studies, now retired.

“Students tell me they take the course because they want to get a larger view of history,” says Davis. “They want to learn about cultural experiences other than their own.”

As American society becomes increasingly diverse, the face of college campuses across the country is changing. At NTID, the minority student population grew from eight percent in 1988 to 23 percent in 2001, and that growth is expected to continue. This increase in campus diversity brings with it opportunities for students to experience a broad range of cultures, which many students are taking advantage of.

“Since I’ve been at NTID, I’ve

developed friendships with a diverse group of people,” says Daniel Santos, a second-year graphic design student from London, Ontario, Canada, who took the course last year. “Some of my friends were talking about black culture, and I didn’t really know much about it, so I decided to take ‘The Black Experience’ course to learn more.”

“Students come into the course with different perspectives on African-American history,” says Davis. “We tie black history in with other cultures and look at how it compares. In the process, students learn about their own and other cultural groups.”

“I learned a lot about my own Portuguese background from the course,” says Karen Escourse, a third-year applied computer technology student from Richmond Hill, Ontario, Canada, who also took the course last year. “And I discovered that the experience of being black in America is part of everyone’s heritage.”

One of the course requirements is that students interview someone from a different cultural background than their own and report on the experience.

“The course gives the students an opportunity to explore the stereotypes that exist related to various cultures,” says Clark. “When they begin to see how the stereotypes evolved, it’s like a light bulb effect. They’re learning not just what happened, but why it happened.”



A diverse perspective Assistant Professors Catherine Clark and Kathy Davis, left and right respectively in photo at top, present a broader view of history for a diverse group of students in NTID’s course, “The Black Experience.”

The course also explores the history of deaf African-Americans, and Clark and Davis invite guest presenters to share their personal experiences in both worlds with the class.

“Most students haven’t learned much about black deaf history,” says Clark. “Our course gives them an opportunity to learn about and discuss this unique subject.”

“I get so excited for students because I know that they’re learning who they are by talking about their own ethnic group and others,” says Davis. “And I look forward to what I learn each quarter from the students as well.”

Students like Santos can teach all of us something valuable.

“I think it’s important to treat all people as equals and for everyone to learn about and respect other cultures,” he says.

NTID’s “The Black Experience” course gives students an opportunity to do just that by providing cross-cultural dialogue in the classroom and encouraging an appreciation for diversity.



Presidential Award Recipients The National Science Foundation (NSF) awarded RIT its first-ever Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM) for the work of NTID's Department of Science and Engineering Support (DSES). Established by the White House and administered by the NSF, the PAESMEM program honors outstanding mentoring efforts and programs designed to enhance the participation of groups underrepresented in science, mathematics and engineering. DSES members received the award at a special White House ceremony in December.

Members of the award-winning team pictured here are: (front row, left to right) Jane Jackson, Gail Binder, Glenda Senior, Karen Beach, Carla Deibel; (back row, left to right) Warren Goldmann, Peter Lalley, Rosemary Saur, Sandy Grooms, Thomas Callaghan, Sharon Rasmussen, Dom Bozzelli. Not pictured are Markey Hoblit, Katharine Gillies, Melody Shust and Delegne Woldmedhin.



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A trip to "Neverland" Flying characters, swordplay, and a giant crocodile on the hunt for Captain Hook delighted sell-out crowds this spring when NTID Performing Arts and MS Productions, Ltd. presented a one-of-a kind production of *Peter Pan*. This was the first-ever full-scale adaptation of J.M. Barrie's classic play presented in American Sign Language by deaf actors.