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Welcome Class of 2013

New Jersey Institute of Technology



OPEN HOUSE 2008

A message from Kathryn Kelly, Dean of Admissions

Are you the kind of student who's not satisfied with being just as good as everyone else? You want to be not just one, but two steps ahead; you want to have an edge. Take a few minutes to read about the edge in knowledge at NJIT.

Why NJIT?

- Our majors are vital to our global economy: sciences, engineering, architecture, computing, and business, to name just a few.

- You can be "career-ready" with a Bachelor's degree.

- Our reputation as an outstanding university and an excellent value. Read about it in U.S. News & World Report's 2007 Annual Guide to America's Best Colleges, or Princeton Review America's Best Value Colleges.

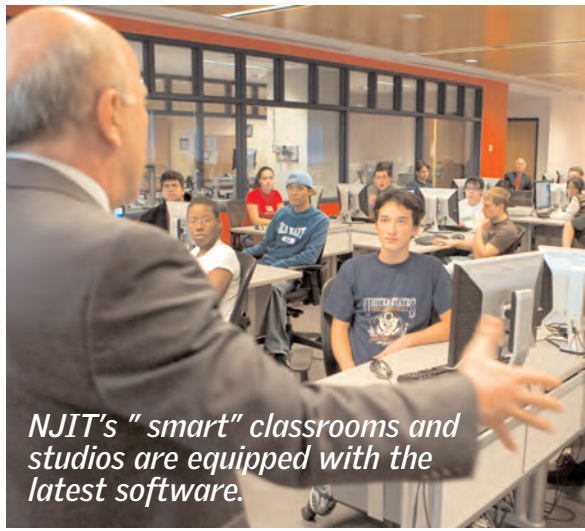
- Vibrant student life, a renovated campus, NCAA

Division I sports, and a wonderfully diverse, multicultural, urban environment. Ask our students — they'll tell you it's a great place to live and learn.

Visit NJIT and find out for yourself: exciting things happen at the edge!

NJIT's 2008 commencement ceremony was held at the new Prudential Center in Newark.





NJIT's "smart" classrooms and studios are equipped with the latest software.

NJIT at the Edge in Academic Excellence

- *U.S. News and World Report* ranked NJIT among top national universities.
- *Princeton Review* named NJIT a best college and best Northeastern college.
- NJIT ranks among the top 200 American research universities in an annual study by The Center at the University of Florida.
- The university placed among the NSF top 50 among colleges without a medical school for research expenditures.
- In a study by Academic Analytics, NJIT was tenth among research universities specializing in science, technology, engineering and math based on faculty scholarly productivity.
- *Princeton Review* ranked NJIT among the "25 Most Connected Campuses" in the nation.
- NJIT was seventh among national universities in the *U.S. News* ranking of campus diversity.
- The university also ranked as national leader in graduating African-American, Asian-American and Hispanic engineers and computer scientists, according to *Diverse Issues in Higher Education*. Among these rankings, NJIT was third in the nation in graduating African-American students with master's degrees in engineering, and tenth in the nation in engineering master's degrees awarded to students of all minority groups.
- NJIT is a *U.S. News* top 100 engineering program at a doctoral university.
- The university was tenth in the nation in mathematics and ninth in information systems based on faculty scholarly productivity in a study by Academic Analytics.
- NJIT's College of Computing Sciences was ranked among the top 56 graduate schools of information technology in the "Schools to Watch" special report by *Computerworld*.

at a glance...

NJIT is New Jersey's Science and Technology University. Its roots go back to 1881, when it was founded as Newark Technical School. A *U.S. News* top national university, NJIT is seventh in the nation in diversity.

LOCATION

Located in New Jersey's University Heights, home to more than 30,000 college students, NJIT offers advantages beyond its own campus, including the resources of New York City just 10 miles away.

CAMPUS

In recent years, NJIT has put more than \$83 million toward new and improved buildings and facilities on the 45-acre campus, including biomedical engineering labs and a campus center with bowling alleys and a rooftop garden.

ENROLLMENT

5,428 undergraduates and 2,860 graduate students from 33 states and more than 100 countries.

FACULTY

399 full-time faculty; more than 98% hold highest degree possible in their fields; student-faculty ratio is 13:1.

DEGREES

112 degree programs, at the undergraduate, master's and doctoral levels. Students can double major, design an interdisciplinary major, opt for an accelerated bachelor's/master's degree program, and cross-register at nearby Rutgers University-Newark.

HONORS COLLEGE

Albert Dorman Honors College enrolls more than 600 students who take advantage of honors courses, research opportunities, advising, and mentoring. Honors College students have SAT scores in the top 10 percent nationally.

HANDS-ON LEARNING

Students have many opportunities to take part in experiential learning through service learning, labs, internships, co-ops, and research.

New Majors at NJIT: Innovative Routes to the Edge in Knowledge

NJSOA is a national leader in the use of computers in design.

The edge in knowledge is not limited to engineering and science: NJIT, the state's science and technology university, has expanded its educational offerings with surprising new undergraduate degree programs. The university is offering eight innovative programs in areas including art and design, pre-law, business and computing. To learn more about the new majors, visit newmajors.njit.edu. To apply for admission, visit: www.njit.edu/admissions/undergraduate/applying/index.php.

Each new program has a unique 21st century focus that draws on the rich technological expertise of NJIT. Students can learn new ways to apply technology and make it work for them: how to create digital or multimedia art, or to launch a hi-tech business, or to use computational technology to design new medicines or even to chart sunspots that disrupt cell phone reception.

New majors for 2008 include the following:

● **Art*:** (Bachelor of Fine Arts) prepares students for careers in the fine arts with a program that integrates art, science and technology with the new Bachelor of Fine Arts program offered by NJIT's New Jersey School of Architecture (NJSOA). The program offers a unique atmosphere in which students can develop their innate inventiveness and natural curiosity into an exciting, diverse and rewarding professional career. (*Pending approval)

● **Digital Design:** Another new program offered by NJSOA, is an exciting field that underlies most of today's communication and entertainment media, from computer game

design to movie special effects.

Students can learn the techniques of animation, digital special effects, and graphic design at one of the nation's leading institutions for digital design education.

● **Interior Design:** Drawing from NJSOA's expertise as a national leader in digital design, the interior design program focuses on shaping the experience of interior space, through the manipulation of spatial volume as well as surface treatment. Students will learn to create residential, commercial and institutional interior spaces and facilities by integrating the disciplines of environmental psychology, architecture, industrial design and product design.

● **Law, Technology and Culture:** A program unique in the state of New Jersey, the BA in law, technology and culture is offered by the History Department and offers an interdisciplinary approach focusing on the history and social development of law, with an emphasis on technological and scientific issues that are particularly relevant in the twenty-first century. It is designed to prepare students for careers in law and law-related areas of business and government, as well as for further graduate study of the law in various disciplines.

● **International Business:** International trade, multinational enterprise development, foreign direct investment, and international financial institutions are among the areas covered in International Business, another new SOM program. SOM also encourages internships and foreign study programs with affiliated universities in Asia, Europe, Russia and South America.

Business and Information Systems

A new offering from NJIT's College of Computing Sciences (CCS), this program is geared toward students who want to prepare for careers where they will perform requirements analysis and application systems design and development, as well as use, analyze and evaluate computing applications and systems in a business environment. Offered in collaboration with the School of Management, the program provides strong preparation in business topics as well as computing.

● **Computing and Business:** Also offered by CCS in partnership with SOM, this new BS program teaches the concepts in computer science and business necessary to function effectively in designing, building, enhancing, and maintaining software systems and applications in the context of business environments such as in the financial industry. Graduates will have a unique combination of business and computing knowledge that will open doors to numerous jobs in finance, insurance, marketing, telecommunications, consulting and the pharmaceutical industry.

● **Computational Sciences:** This new math program, offered by the College of Science and Liberal Arts, explores the connection between science and computation. Computational sciences combines the application of numerical methods, models, and algorithms in the context of solving problems that are intractable by traditional methods, thus providing new means for learning and advancing the traditional sciences. Students may specialize in biology, physics, mathematics or chemistry.

SCHOOLS & COLLEGES

Newark College of Engineering

Sunil Saigal, PhD, Dean
(973) 596-6506
engineering.njit.edu

New Jersey School of Architecture

Urs P. Gauchat, MArch, Dean
(973) 596-3080
architecture.njit.edu

College of Science and Liberal Arts

Fadi P. Deek, PhD, Dean
(973) 596-3677
csla.njit.edu

School of Management

Robert English, PhD, Interim Dean
(973) 596-3279
management.njit.edu

Albert Dorman Honors College

Joel Bloom, EdD, Dean
(973) 642-4448
honors.njit.edu

College of Computing Sciences

Narain Gehani, PhD, Dean
(976) 596-5304
ccs.njit.edu



THE NJIT EDGE:



Real Experience and Real Knowledge for the Real World

The NJIT students combining conventional classes with internships and co-op work at General Devices are benefiting from an educational experience that literally involves matters of life and death. Based in Ridgefield, New Jersey, General Devices is at the leading edge of communications technology for emergency medical and public safety personnel. For example, as featured on National Public Radio, the company's ER-Link is the first operational EMS telemedicine system in the nation. It is designed to support voice, video and data communication between medical first responders on the road in Tucson, Arizona, and physicians at the hospital to which they're transporting a person stricken by illness or an accident.

NJIT students have contributed to the design and production of these systems at General Devices for nearly three decades. The company currently has some 24 staff members in Ridgefield, among them a dozen NJIT interns and co-ops. Curt Bashford '87, MS '95, now vice president, joined General Devices as an intern over 20 years ago.

An educational cornerstone

In 2008, experiential learning is an educational cornerstone at NJIT, encompassing various other programs in addition to internships and co-op employment. Also notable are the Capstone projects that engage NJIT undergraduates and graduate students, as well as young people on the pre-college level, in real-world challenges presented by the public and private sectors. NJIT students can sample hands-on experiences in all branches of engineering, software development, architecture, basic research, marketing and numerous other fields.

All told, NJIT has partnerships with some 2,600 organizations, including companies ranging from small startups to large corporations, non-profit groups and government agencies. Among program sponsors and employers are Johnson & Johnson, New Jersey Transit, Schering-Plough, PSEG, Memorial Sloan-Kettering Cancer Center and Liberty Science Center.

Success made at NJIT: Co-ops and interns

Michael Smith, president of General Devices and a member of NJIT's Career Development Services Advisory Board, says that his company's success is due in large measure to the NJIT interns and co-ops who have worked with him over the years, some of whom have attained full-time posi-

tions. As Smith puts it, "You could say that our success has been made at NJIT."

Companies like General Devices, engines of technical innovation and job creation in the U.S., need employees who can hit the ground running when they come aboard full-time. A co-op or intern gives an employer a good idea as to whether that person would be a productive full-time fit. According to Smith, the average ratio of employees who don't work out in the long run is about 6 to 1. "Our record is nearly a hundred percent, based on our preference for hiring co-ops and interns as full-time employees."

Gregory Mass, NJIT's executive director for career development services, enthusiastically elaborates on how experiential learning adds value to education in the classroom and promotes professional development. "An outstanding academic record is no longer enough to obtain the most desirable positions when you first enter the workplace," he says. "Employers seek graduates who are not only technologically proficient, but who also have developed communication and teamwork skills. Students who have taken full advantage of opportunities for experiential learning in appropriate work environments are simply more prepared for success at the start of their careers." There's also a significant advantage when it comes to paying for college. While not all interns are paid, co-op students earn a salary as well as academic credit.

The Capstone perspective

Capstone projects call upon students to help develop solutions for real-world needs in many fields. For example, since its inception in 2002, the Capstone program, initiated by University Senior Lecturer Osama Eljabiri in the College of Computing Sciences, has involved more than 1,500 students in some 300 projects. Clients and sponsors have included CBS News, CIT, Honeywell, PSE&G, Saint Barnabas Health Care System, and the U.S. Army, as well as smaller high-tech firms. These Capstone students have also joined NJIT research teams, and projects have been sponsored by the City of Newark, the New Jersey governor's office and the FBI.

Under Eljabiri's direction, the program has expanded to include a pre-college component — Connections: A Real World Education Program for High School Students. Talented young people from high schools across New Jersey participate in work-experience projects for companies, non-profit

organizations and other groups under the guidance of industry experts, and NJIT faculty and students.

Recently, a Capstone team that included high school students worked on software for the "Global Microscope" at New Jersey's Liberty Science Center. This powerful projector allows visitors to view graphic depictions of atmospheric changes, tsunamis, global warming and other geophysical phenomena.

(Visit www.lsc.org for more about the Global Microscope.)

The university provides opportunities many opportunities for undergraduates to gain hands-on experience in the research labs as well. Through NSF-supported programs, students can spend summers working with leading faculty researchers in cutting-edge fields such as BioMEMS, nanotechnology, and computer and network security.

SCIENCE AND TECHNOLOGY DEGREES: THE PAYOFF



NJIT's emphasis on technology makes for excellent career preparation. Consider:

- Engineering and computer science majors took five of the 10 top spots in a list of starting salary offers, according to the National Association of Colleges and Employers. NJIT offers comprehensive and strong programs in both engineering and computer science.
- More top 500 company CEOs have undergraduate degrees in engineering than any other major; more than half earned undergraduate degrees in engineering, business management, science, math and computing.
- In one year, NJIT's Career Development Services posted 4,746 technology job opportunities.

Graduates of science and technology degree programs continue to be among the most sought-after in the job market. Most graduates in these fields will receive multiple employment offers and starting

salaries exceeding \$50,000 annually.

For students who wish to continue their education after the completion of the baccalaureate degree, an NJIT degree serves as excellent preparation for advanced study. NJIT graduates have been accepted to the most prestigious graduate degree programs in the United States and around the globe including:

- California Institute of Technology
- Columbia University
- Cornell University
- Georgia Institute of Technology
- Harvard University
- Johns Hopkins University
- MIT
- Northwestern University
- Princeton University
- Purdue University
- Seton Hall Law School
- Stanford University
- University of California at Berkeley
- Yale University

Tuition & Fees

NJIT's costs are substantially lower than those at private universities.

Financial Aid

More than 89 percent of incoming students receive financial aid in the form of grants, scholarships, loans, and/or work-study.

2008 - 2009 Tuition & Fees:

New Jersey Resident:
Tuition: \$10,500
Fees: \$1,982

Non-New Jersey Resident:
Tuition: \$19,960
Fees: \$1,982

Undergraduate Programs

MAJORS

Applied Physics
Architecture
Art (pending approval)
Bioinformatics
Biology
Biomedical Engineering
Business
Business and Information Systems
Chemical Engineering
Chemistry
Civil Engineering
Communication
Computational Sciences
Computer Engineering
Computer Science
Computing and Business
Digital Design
Electrical Engineering
Engineering Science
Engineering Technology
Environmental Sciences
History
Industrial Design
Industrial Engineering
Information Systems

Information Technology
Interior Design
International Business
Law, Technology and Culture
Mathematical Sciences
Mechanical Engineering
Science, Technology and Society

JOINT PROGRAMS

Accelerated Medicine/Dentistry (with various professional schools)
Accelerated Law (with Seton Hall University)
Physician Assistant (with UMDNJ)
Physical Therapy (with UMDNJ)
Teacher Certification (with Rutgers-Newark)

MINORS

Applied Mathematics
Applied Physics
Applied Statistics

Biology
Business
Chemistry
Communication
Computer Engineering
Computer Science
Drama/Theater
Economics
Environmental Engineering
Global Studies
History
Industrial Engineering
Information Systems
Leadership and Aerospace Studies
Legal Studies
Literature
Materials Engineering
Philosophy/Applied Ethics
Science, Technology and Society
Technology, Gender and Diversity

Students and Stats

Tell the Story of Campus Safety



As biomedical engineering major Yvan Christophe sees it, "NJIT's campus is safe. With the many officers always on duty, you feel secure taking day or night classes." Christophe and his fellow students have solid reasons to feel safe at the 45-acre Newark campus patrolled by the university's Department of Public Safety.

Honors College student Paul Maranski puts it this way: "I do feel safe on this campus. Granted, we are located in Newark, which may seem daunting to some, but it is still quite safe. It is surrounded by numerous security stations, and the officers know their job well. Also nearby are the campuses of the other local colleges, including Rutgers and UMDNJ, which adds to the security of the area."

The majority of NJIT students agree with them.

"The data tells the story," suggests Eugene Deess, director of Institutional Research at NJIT. Deess points to NJIT student satisfaction survey results, revealing opinions that show that personal safety on campus has always topped the list of areas of satisfaction. "Since we began the annual survey in 2001, students have never been less than overwhelmingly satisfied with personal safety on campus," Deess says. In the

anonymous satisfaction survey, students are given an opportunity to comment on topics of their own choosing and many, unsolicited, chose to comment on the safety of the campus.

Fatima Elgammal, who studies applied mathematics, credits the university for its safety-conscious atmosphere and perspective. "The university makes it clear, one way or another, how we should carry ourselves in the urban location we are in. There is a likelihood that anything can happen, regardless of the location, if one is not vigilant," says the Honors College student, adding that Public Safety's response time and vigilance have earned her confidence.

Trained security professionals, dedicated to community policing, are available 24-hours a day, seven days a week to assure campus security. They are very visible on campus with bikes, police scooters and foot patrol, as well as in patrol cars. All NJIT police officers undergo 20 rigorous weeks of training at a local police academy with other municipal recruits. Upon graduation, the officers are certified by the New Jersey Police Training Commission and commissioned as police officers by the university president in accordance with N.J.S.A. 18:6-4.3.

CAMPUS LIFE



NJIT faculty and staff serve the traditional pancake breakfast to students on the first day of classes.



Architecture student Sara Nordstrom and her fellow Wachovia/NJ DCA Housing Scholar Melissa Licastro spent their spring break in New Orleans 9th Ward helping to build the "first carbon-neutral community" in the nation.



NJIT men's basketball, shown here hosting Rutgers in the downtown Newark Prudential Center, is one of 11 of NJIT's Division I intercollegiate athletics teams invited to compete in the Great Western Conference.

Night or day, check out what the Campus Center has to offer.



NJIT's SmartCampus research program provides student volunteers with cool technologies like wearable computers.



NJIT's residence halls provide cable TV and high-speed Internet access.



NJIT's Biology Club participated in 22nd Annual Spring Beach Sweep at Sandy Hook, helping to remove and record debris from New Jersey's beaches to identify patterns of pollution. Left: Women's soccer finished 4-1-1 in its last six contests of the 2007 season.

Student Organizations

African Student Association
Aikido Club
Alpha Kappa Alpha
Alpha Phi Alpha
Alpha Phi Omega
Alpha Rho Chi
Alpha Sigma Phi
Alpha Sigma Tau
Association of Computing Machinery
Architecture Student Union
Biomedical Engineering Society
Biomedical Engineering Honor Society
Bemani Gamers Association
Campus Crusade for Christ
Commuter Student Council
Coptic Society
Delta Phi Epsilon
Delta Phi Omega
Delta Sigma Theta
Electrical & Computer Engineering
Filipino Student Association
Formula Hybrid SAE
Graduate Student Association
Hasan
IEEE Student Branch
IFSC
International Society for Pharmaceutical Engineers
International Students Organization
Intervarsity Christian Fellowship
Judo - Martial Arts
Kappa Xi Kappa
Korean Campus Crusade for Christ
Korean Graduate Student Association
Korean Student Association
Lambda Upsilon Lambda
Lambda Sigma Upsilon

Lambda Tau Omega
Lambda Theta Alpha
Lambda Theta Phi
Music Interest Club
Muslim Students Association
NSBE
NJIT Amateur Radio Club
NJIT Art Society
NJIT Breakdance Club
NJIT Italian Club
NJIT Math Club
Nucleus
Pakistani Students Association
Phi Beta Sigma
Phi Eta Sigma
Pi Kappa Phi
Radio Control Club
RANG
Sanskar-Indian Graduate Student Association
SCEED
Sigma Lambda Beta
Sigma Pi
Sigma Psi Kappa
Society of Automotive Engineers
Society of Musical Arts
Society of Plastic Engineers
Society of Women Engineers
Spectrum
Student Activities Council
Tau Beta Pi
Tau Delta Phi
Tau Epsilon Phi
Tau Kappa Epsilon
Theta Chi
United Sikh Students
WWEAG
Wrestling Club