

New Jersey Institute of Technology



Educational Learning Assistants Increasing Retention Significantly

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Overview of NJIT



- **Description**
- **Mission**
- **Demographics**
- **Support Programs**
- **Launching Programs**
- **Career Services**
- **Graduate Studies**
- **Conclusion**

New Jersey Institute of Technology



- **Located in the University Heights section of Newark, New Jersey on a 45-acre campus easily reached via interstate highways and public transportation. Newark International Airport and the Pennsylvania Railroad Terminal are close by.**
- **The university houses major centers sponsored by the New Jersey Commission on Science and Technology: it is an internationally recognized leader in environmental research at the Hazardous Substance Management Research Center; and also houses the Center for Manufacturing Systems**
- **With over 8,200 students, it is the largest technological university in the New York metropolitan region. The university has state-of-the-art facilities with more than 2,000,000 square feet of space.**

NJIT (continued)



- **A Technology and Engineering Center is located in Mount Laurel and a solar observatory in Big Bear, California.**
- **With robust Extension and Distance Education programs, NJIT's degree and non-degree programs are available throughout the state and the world.**
- **A two-story "factory of the future" is an important feature of the Information Technology building.**

Mission



- NJIT is a public, urban research university, committed to the pursuit of excellence in...
- ➔ undergraduate, graduate, and continuing professional education, preparing students for productive careers, and amplifying their potential for lifelong personal and professional growth;
- ➔ the conduct of research in such multi-disciplinary areas as environmental engineering, materials science, manufacturing, productivity enhancement, transportation and infrastructure systems, infrastructure and communications technologies, and health sciences;
- ➔ contributing to the state's economic development through partnerships and joint ventures with government and the business community and through the development of intellectual property;

Mission (continued)

- ➔ In service to both its local communities and the broader society of the state and nation by conducting public policy studies, making educational opportunities widely available, and initiating community-building projects.
- NJIT prepares its graduates for positions of leadership as professional and as citizens; provides educational opportunities for a broadly diverse student body; responds to needs of large and small businesses, state and local governmental agencies, and civic organizations; and advances the uses of technology as a means of improving the quality of life.
- NJIT offers a comprehensive array of programs in engineering and engineering technology, computer science, architecture, applied sciences, mathematics, management, policy studies, materials science, and related disciplines throughout New Jersey and the nation.

Demographics

■ Gender

Female 21.2% Male 78.8%

■ Race/Ethnicity

Undergraduate enrollment

Black 11.5%, Hispanic 12.7%, Asian
23.5%

■ Engineering Majors

ChE, CE, CoE, EE, IE, MfE, ME

■ Engineering Technology

CET, CMT, EET, MfET, MET, SET

National Student Chapters

■ NSBE

The largest chapter in NJ (75 members)
Highest graduation number in region

■ SHPE

National Champs (1999)
Top finalists (three times)
2nd Place (1999) Eastern Technical Regional
Conference

■ SWE

(50+ members and growing)

Support Programs



- **University Learning Center**
- **Student Support Services program**
- **Pre-college programs**
- **Educational Opportunity Program**
Educational Learning Assistants
Program

University Learning Center



The ULC has made an effort to address barriers to student success, particularly under-represented students by:

- Using a collaborative learning model,
- clustering students in the same course for tutoring sessions,
- offering workshops on Test Prep, Test Anxiety, Time Management and
- providing a pleasant area conducive to studying

Student Support Services program



- Serves first-generation, low-income and disabled students
- Funded by the Department of Education and NJIT
- Offers:
 - Two-week winter Inter-session
 - Counseling & Peer Tutoring
 - Sponsors Multi-cultural events and field trips
- Serves 150 participants

Pre-College Programs

- Consortium for Pre-College Programs in Greater Newark
- Center for Pre-College Programs - bridge to engineering programs
- Women in Engineering and Technology
- Summer Academies
- Curriculum Reform
- TRIO Programs
 - Upward Bound
 - Talent Search
 - U.B. Regional Math and Science Program
 - ESL Upward Bound
- all are focused on middle through high school students on Saturdays all year and in the summer.

Educational Opportunity Program



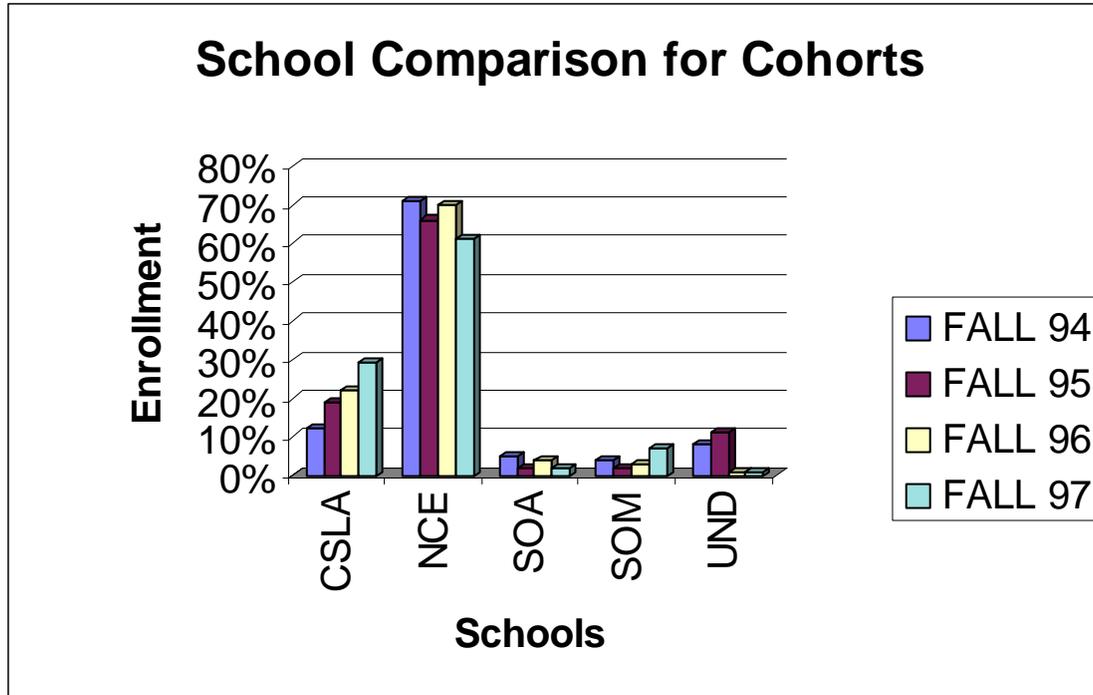
Programs

Summer Academic Enrichment Program	Freshman Advisement Program	Educational Learning Assistants Project	Seminars <ul style="list-style-type: none">- financial aid- alumni spkr- conflict resolution- study skills
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Staffing

Faculty Counselors Resident Assistants	Assistant Director for Counseling Services	ELA Project Coordinator Upper Division Student Aids	Staff Guest Speakers
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School Profile



Approximately 70% of our students are in engineering majors

ELA Profile



- 👉 EOP Students
- 👉 Junior/Senior/Graduate students
- 👉 Good academic standing
- 👉 Recommended by EOP staff
- 👉 Experience as Resident Assistants, tutors, Teaching Assistants, etc.

ELA Training



- * ELA Program & EOP Overview
- * Project Goals & Objectives
- * Group Dynamics & Team Building
- * Residence Hall Rules & Regulations
- * Tutoring & Collaborative Learning
- * Commuters Vs. Residential Students
- * Duties & Responsibilities

Responsibilities



Coordinator

- Data Management
- Supervision
- Counseling
- Reports
- Program Manual
- Career Advisement
- Identify Resources

ELAs

- Student contact
- Attend meetings
- Weekly reports
- Track student progress
- ULC Liaison
- Provide referrals

Intervention



What is being done?

- Mentoring
- Tutoring
- Study Sessions
- Career Advisement
- Scholarship Info
- Networking Contacts

How is it being done?

- Correspondence
- E-mail
- Cohort meetings
- In-person contact
- Telephone calls
- Study-a-thons

ELA Benefits



- EOP students helping EOP students
- Room & Board grant
- Commitment of only 10 hours per week
- Leadership & Administrative Experience
- Practice in Report Writing
- A chance to make a difference!

Launching Programs



- **University Research Experience**
- **Ronald E. McNair Post-baccalaureate Achievement Program**
- **MAC Program**
- **BS/MS Program**
- **BS/Ph.D. Program**
- **Dual Degree Programs**

University Research Experience (URE)



- Opportunity to teach at collegiate level
- Opportunity to attend/ present at a professional meeting / or conference
- Opportunity to co-publish in scholarly journals
- Assistance with the graduate school application process
- Supervised research with Faculty Advisor/Mentor
- Financial support
- A chance to present and compete at the State and national Undergraduate Research programs
- Opportunities to partake in teaching internships and workshops
- A chance to experience the faculty culture “behind the scenes”
- An opportunity to become the Outstanding Undergraduate Researcher and be recognized at the National level

McNair Post-baccalaureate Achievement Program



- The goal of the McNair Program is to increase the number of United States scientists, engineers and mathematicians who come from economically disadvantaged backgrounds.
- McNair prepares low-income and first- generation or underrepresented students enrolled full-time in the Newark College of Engineering, the College of Science and Liberal Arts and the Albert Dorman Honors College for doctoral study.
- All Fellows receive assistance to apply for and enroll in graduate school after graduating with bachelors' degrees from NJIT.

McNair Program (continued)

- Engages students in research and other scholarly activities
- Provides opportunities to present at professional conferences and to be published in peer review and other professional journals.
- Provides a wide array of seminars, workshops and activities to prepare students for doctoral study.
- Facilitates summer research (either at NJIT or elsewhere) between their junior and senior year of study.
- Assists seniors to apply to national undergraduate research programs.

Career Services Division



- Internships
- Cooperative Education
- Career Fairs
- Job Placement
- Service Corps
- Alumni Services
- Employer Services

Minority Academic Career (MAC) Program



- Funded through the Commission on Higher Education of NJ to increase the number of under-represented students in PhD programs
- offers a doctoral fellowship for up to \$20,000 a year for three years
- and the fourth year a dissertation fellowship for up to \$20,000

Undergraduate Approval for Taking Graduate Courses

■ BS/MS

six credits can be double counted for undergraduate and graduate credit

■ BS/MBA

12 credits can be double counted

■ BS/PhD

Student can be admitted to doctoral track provided that GPA is maintained throughout

Dual Degree Programs



- **Engineering Science (ES) /MD**
Senior year spent at UMDNJ New Jersey Medical School
- **ES/OD**
Senior year spent at SUNY School of Optometry
- **ES/DM**
Senior year spent at UMDNJ NJ Dental School
- **ES/DDS**
Senior year spent at NYU Dental School
- **ES/Law***
*Still in planning stages.

Graduate Studies

- NJIT offers 33 Master's degrees, 18 doctoral degrees and 12 graduate certificate programs.
- There are Full-time and part-time options.
- Numerous collaborative programs with Rutgers and UMDNJ are also offered through the Graduate Center at Newark.
- Distance Learning courses is offered nationwide and internationally.
- Off-campus sites are available as well.

GRE Test Score Data '98-99



	Verbal	Quantitative	Analytical	TOTAL
NJIT PhD	480	750	650	1880
ALL ETS	470	580	556	1606
U.S. ONLY	478	530	538	1546
ENGR	460	710	593	1763
PHYS SCI	480	680	596	1756
BUSINESS	444	549	515	1508

PhD Graduates



AY	NJIT	NJIT/RU-N	DEN	TOTAL
1995-96	40	3	0	43
1996-97	42	3	1	46
1997-98	33	5	0	38
1998-99	39	0	0	39
1999-00	5	0	0	52
2000-01	60-65	4-6	1-2	65-73

PhD Degree Titles

■ NCE

Biomedical Engineering
Chemical Engineering
Chemistry
Civil Engineering
Computer Engineering
Electrical Engineering
Environmental Engineering
Environmental Science (with Rutgers)
Industrial Engineering
Mechanical Engineering
Transportation

■ CSLA

Biology (w/Rutgers)
Mathematical Sciences
(w/Rutgers)
Applied Physics (w/Rutgers)

■ Computing Sciences

Biomedical Informatics (w/ UMDNJ)
Computer Science*
Information Systems*

■ Interdisciplinary or Other

Materials Science & Engineering
Urban Systems (w/Rutgers & UMDNJ)
Management (w/Rutgers)

Conclusion



- NJIT was ninth in the nation in the number of engineering and engineering technology degrees conferred on Hispanics (*Hispanic Outlook*)
- tenth in the nation in the conferral of baccalaureate degrees in engineering on African American Students (*Black Issues in Higher Education*)
- The only university in the nation listed in the top ten of both rankings.