

## II.H. Profile of the Institution

### II.H.1. Degree Programs

NJIT currently offers 95 degree programs (35 bachelors degree programs, 41 masters programs, and 19 doctoral programs):

*Bachelors Degrees (35 programs, CIP Code listed after program name)*

Applied Mathematics <sup>1</sup> (B.A.) 270301	Engineering Technology (B.S.) 150000
Applied Physics <sup>1</sup> (B.S.) 400899	Environmental Engineering (B.S.) 141401
Architecture (B.Arch.) 040201	Environmental Science <sup>1</sup> (B.S.) 030104
Architecture (B.S.) 040201	Geo-science Engineering <sup>1</sup> (B.S.) 143901
Bioinformatics (B.S.) 119999	History <sup>1</sup> (B.A.) 540101
Biology <sup>1</sup> (B.A.) 260101	Human Computer Interaction <sup>1</sup> (B.S.) 110401
Biology <sup>1</sup> (B.S.) 260101	Industrial Engineering (B.S.) 143501
Biomedical Engineering (B.S.) 140501	Industrial Engineering <sup>1</sup> (Dual B.A. in Physics) 143501
Chemical Engineering (B.S.) 140701	Information Systems (B.S.) 110401
Chemistry (B.S.) 400501	Information Systems <sup>1</sup> (B.A.) 110401
Civil Engineering (B.S.) 140801	Information Technology (B.S.) 110103
Communication (B.A.) 231101	Management (B.S.) 520201
Communication (B.S.) 231101	Manufacturing Engineering (B.S.) 143601
Computer Engineering (B.S.) 140901	Mathematical Sciences (B.S.) 270301
Computer Science (B.S.) 110101	Mechanical Engineering (B.S.) 141901
Computer Science <sup>1</sup> (B.A.) 110101	Science/Technology & Society (B.S.) 301501
Electrical Engineering (B.S.) 141001	Science/Technology & Society <sup>1</sup> (B.A.) 301501
Engineering Science (B.S.) 141301	

There is now a Mathematical Sciences B.S. that will replace the Applied Mathematics B.S. and the Statistics and Actuarial Science B.S. No new students will be admitted to either the Applied Mathematics B.S. or the Statistics and Actuarial Science B.S; they will both be phased out as students currently in the programs complete.

There are 4 options within Engineering Science (B.S.):

- Materials Science and Engineering
- Pre-medical
- Pre-dental
- Pre-optometry

There are 9 options within Engineering Technology (B.E.T.):

- Computer Technology (not ABET accredited)
- Concrete Industry Management Technology (not ABET accredited)
- Construction Engineering Technology
- Construction Management Technology (not ABET accredited)
- Electrical and Computer Engineering Technology
- Manufacturing Engineering Technology (not ABET accredited)
- Mechanical Engineering Technology
- Surveying Engineering Technology
- Telecommunications Management Technology (not ABET accredited)

There are 4 options within Management (B.S.):

- E-Commerce
- Finance
- Marketing
- Management Information Systems

There are 23 undergraduate minors offered (12-18 credits required for a minor):

Applied Mathematics	History
Applied Physics	Industrial Engineering
Applied Statistics	Information Systems
Biology	Leadership and Aerospace Studies (AFROTC only)
Chemistry	Legal Studies
Communication	Literature
Computer Engineering	Management
Computer Science	Materials Engineering
Drama/Theatre	Philosophy/Applied Ethics
Economics	Science, Technology and Society
Environmental Engineering	Technology, Gender & Diversity
Global Studies	

Masters Degrees (41 programs, CIP Code listed after program name)

Applied Mathematics (M.S.) 270301	History <sup>1</sup> (M.A.) 540101
Applied Physics (M.S.) 400899	History <sup>1</sup> (M.A.T.) 540101
Applied Physics <sup>1</sup> (M.S.) 400899	Industrial Engineering (M.S.) 143501
Applied Science (M.S.) 409999	Information Systems (M.S.) 110401
Applied Statistics (M.S.) 270501	Infrastructure Planning (M.I.P.) 040301
Architectural Studies (M.S.) 040201	Interdisciplinary Studies (M.S.) 309999
Architecture (M.Arch.) 040201	Internet Engineering (M.S.) 149999
Biology <sup>1</sup> (M.S.) 260101	Management (M.S.) 520201
Biomedical Engineering (M.S.) 140501	Management of Technology (M.B.A) 520299
Chemical Engineering (M.S.) 140701	Manufacturing Systems Engr. (M.S.) 143601
Chemistry (M.S.) 400501	Materials Science and Engineering (M.S.)
Civil Engineering (M.S.) 140801	Mechanical Engineering (M.S.) 141901
Computational Biology <sup>1</sup> (M.S.) 261103	Nursing-Nursing Informatics <sup>2</sup> (M.S.N.)
Computer Engineering (M.S.) 140901	Occ. Safety & Health Engineering (M.S.)
Computer Science (M.S.) 110101	Occ. Safety & Industrial Hygiene (M.S.)
Electrical Engineering (M.S.) 141001	Pharmaceutical Engineering (M.S.) 149999
Engineering Management (M.S.) 151501	Professional & Technical Comm. (M.S.)
Engineering Science (M.S.) 141301	Public Health <sup>4</sup> (M.P.H.) 512201
Environmental Engineering (M.S.)	Telecommunications (M.S.) 141001
Environmental Policy Studies (M.S.)	Transportation (M.S.) 140804
Environmental Science <sup>1</sup> (M.S.) 030104	

There are 4 options within Management (M.S.):

- Management Information Systems
- E-Commerce
- Organization Management
- Management of Technology (pending approval)

There are 6 areas of concentration within the M.B.A.:

- Management Information Systems
- Operations Management
- E-Commerce
- Marketing
- Finance

Doctoral Degrees (19 programs, CIP Code listed after program name)

Applied Physics<sup>1</sup> (Ph.D.) 400899  
Biology<sup>1</sup> (Ph.D.) 260101  
Biomedical Engineering<sup>2</sup> (Ph.D.) 140501  
Chemical Engineering (Ph.D.) 140701  
Chemistry (Ph.D.) 400501  
Civil Engineering (Ph.D.) 140801  
Computer & Information Science (Ph.D.) 110101  
Computer Engineering (Ph.D.) 140901  
Computer Science (Ph.D.) 110701  
Electrical Engineering (Ph.D.) 141001  
Environmental Engineering (Ph.D.) 141401  
Environmental Science<sup>1</sup> (Ph.D.) 030104  
Industrial Engineering (Ph.D.) 143501  
Information Systems (Ph.D.) 110401  
Materials Science & Engineering (Ph.D.) 141801  
Mathematical Sciences<sup>1</sup> (Ph.D.) 270101  
Mechanical Engineering (Ph.D.) 141901  
Transportation (Ph.D.) 140804  
Urban Systems<sup>4</sup> (Ph.D.) 459999

NJIT teaches, advises, and mentors doctoral students in one degree program where Rutgers University is the degree-granting institution:

- Management (*Ph.D.*) 520201

NOTES:

1. Joint degree program with Rutgers - The State University of New Jersey, Newark Campus
2. Joint degree program with The University of Medicine and Dentistry of New Jersey.
3. Joint degree program with both The University of Medicine and Dentistry of New Jersey and Rutgers - The State University of New Jersey, Newark Campus.

*NJIT's accelerated programs*

NJIT offers or participates in 9 accelerated programs:

- B.S./M.S.
- B.Arch./M.S.
- B.S./D.M.D. with the University of Medicine and Dentistry of New Jersey
- B.S./M.D. with the University of Medicine and Dentistry of New Jersey
- B.S./M.D. with St. George's University School of Medicine
- B.S./O.D. with the State University of New York-New York School of Optometry
- B.S./D.D.S. with the New York University-College of Dentistry
- B.S./J.D. with Rutgers School of Law-Newark
- B.S./J.D. with Seton Hall University School of Law-Newark

*NJIT's 2+2 and 3+2 programs*

NJIT offers 2+2 programs through a joint admissions agreement with 10 county colleges:

- Bergen Community College
- Brookdale Community College
- Burlington County College
- Essex County College
- Hudson County Community College
- Mercer County College
- Middlesex County College
- Ocean County College
- Raritan Valley Community College
- Union County College

NJIT offers 3+2 programs through a joint admissions agreement with 3 colleges:

- Seton Hall University
- Stockton State College
- William Paterson University

*NJIT's articulation arrangements*

NJIT currently has articulation arrangements with the following 19 institutions:

- Bergen Community College
- Brookdale Community College
- Burlington County College
- Camden County College
- County College of Morris
- Cumberland County College
- Essex County College
- Hudson County Community College
- Mercer County College
- Middlesex County College
- Morris County College
- Ocean County College
- Paul Smith's College
- Passaic County Community College
- Raritan Valley County College
- Union County College
- Seton Hall University
- Stockton State College
- William Peterson University

NJIT currently offers an accelerated B.S. in Information Technology at Camden County College and partners with Camden County College to offer courses leading to masters degrees in Engineering Management, Computer Science, and Information Systems

**II.H.2. Continuing and Professional Education Activities at NJIT**

NJIT's Division of Continuing Professional Education (CPE) is a coordinated unit focusing on the development, management, and execution of five major educational programs that fall into two major categories:

**Academic Credit Learning (Degree and Certificate Programs)**

- NJIT eLearning Program
- Graduate Certificate Program
- Extension Programs

## Non-Credit Learning (Training and Certificate Programs)

- Corporate Training
- Professional Development and License Reviews

**II.H.2.a. NJIT eLearning Program**

NJIT offers seven complete undergraduate and graduate degree programs, seven graduate certificates completely online, eight graduate certificate partially via eLearning, and more than 218 individual eLearning college courses in an academic year. eLearning courses are available three times per year in the standard NJIT Fall and Spring semesters and in a ten-week Summer Session. NJIT eLearning courses consist of both an electronic lecture component conducted by an NJIT faculty member and an electronic discussion through which students conduct dialogue with their instructor and other classmates at any time of the day or night. Courses utilize computer conferencing platforms (e.g. WebCT, WebBoard), and multimedia methodologies delivered via CD-ROMS, streaming audio/video, and/or videotapes. Over the past five years, the number of eLearners and eLearning course enrollments have grown as much as 21% averaging 16% a year growth. During the 2007-2008 academic year, there were about 4,800 eLearning students who totaled an eLearning enrollment of more than 6,000 in over 190 eLearning academic credit courses during Fall and Spring semesters and Summer sessions. NJIT's has an inventory of over 200 courses produced in-house within 27 academic disciplines:

- Accounting
- Chemistry
- Chemical Engineering
- Computer Science
- Economics
- Electrical and Computing Engineering
- Electrical Engineering
- Engineering Management
- English
- Environmental Engineering
- Finance
- Human Resource Management
- Humanities and Social Sciences
- Industrial Engineering
- Industrial Management
- Information Systems
- Information Technology
- Literature

- Mathematics
- Management
- Management Information Systems
- Manufacturing Engineering
- Marketing
- Physics
- Professional and Technology Communication
- Science Technology & Society
- Social Science

*Over 100 NJIT faculties have originated courseware for NJIT's eLearning Program.*

Seven undergraduate and graduate degree programs are available through eLearning as well as, seven graduate certificates completely online and eight graduate certificates offered partially via eLearning:

Undergraduate Degrees via eLearning in whole or in part

- |                                 |             |
|---------------------------------|-------------|
| • Computer Science (B.S.)       | 134 credits |
| • Information Systems (B.A.)    | 129 credits |
| • Information Systems (B.S.)    | 130 credits |
| • Information Technology (B.S.) | 127 credits |

Graduate Degrees via eLearning

- |   |            |
|---|------------|
| • Engineering Management (M.S.)                 | 30 credits |
| • Information Systems (M.S.)                    | 36 credits |
| • Professional & Technical Communication (M.S.) | 30 credits |

Graduate Certificates in whole or part via eLearning (each 12 credits)

- Bioinformatics
- Business Management Fundamentals
- Construction Management
- Health Communications
- Information Assurance
- Information Systems Auditing
- Information Systems Design
- Information Systems Implementation
- Internet Applications Development
- Management Essentials
- Management of Technology
- Operations Productivity
- Pharmaceutical Management
- Pharmaceutical Technology
- Practice of Technical Communications

- Project Management
- Sustainable Architecture
- Telecommunications Networking
- Virtual Tools for Professional Communities

Regarding our reputation in the now expanding field of eLearning, NJIT has placed in the top 10 in "eLearning enrollments" among America's Best Online Graduate Degree Programs in the *U.S. News & World Report* magazine's surveys for 2006 and 2007.

NJIT was also ranked by *Yahoo! Internet Life* (1998 through 2002) as the nation's "Perennially Most Wired University", in part due to the large volume of distance learning activity.

In the last five years, the number of NJIT learners and eLearning course enrollments in academic programs has increased an average of 16% each year and over the last ten years has grown nearly 2600%.

#### **II.H.2.b. Graduate Certificate Program**

Structural shifts in the economy have caused many individuals in technological and managerial specialties to feel insecure about their jobs. Others see a reduction in opportunities for advancement in their current careers. For many, education is the key to career transition but earning a Master's degree is not always necessary or appropriate. The NJIT Graduate Certificate Program is designed to facilitate a return to formal advanced education for people whose schedules are too busy to enroll in a more traditional program.

Key features of the Graduate Certificate Program include the following: 12-credit Graduate Certificates are milestones in their own right or springboards to MS degrees at NJIT or elsewhere. Graduate Certificates are offered in fields of study designated by outside authorities as likely to offer the highest growth opportunities for employment. Program duration is one calendar year.

Study is possible through distance learning, which provides greater flexibility for the busy professional to study any time, anywhere. Entry is open to applicants with a BA/BS degree with a satisfactory grade point average.

The following is the list of the 22 current Graduate Certificates offered during Academic Year 07-08:

- Bioinformatics
- CAD/CAM
- Computer Networking
- eCommerce
- eLearning Applications
- Enterprise System Modeling and Design
- Environmental Assessment
- Environmental Infrastructure and Management
- Health Communications
- Information Systems Auditing
- Information Systems Design
- Internet Applications Development
- Internet Systems Engineering
- Managing Human Resources
- Object Oriented Design
- Operations Productivity
- Physical and Digital Counter Terrorism
- Polymer Engineering
- Programming Environment Tools
- Supply Chain Management
- Telecommunications Networking
- Virtual Tools for Professional Communities

### **II.H.2.c. Extension Programs**

NJIT's Division of Continuing Professional Education provides access to their courses and programs to part-time, evening students who prefer to attend classes at locations throughout the state. The extension program began in 1974 when courses in Computer and Information Science were offered at Drew University.

During AY07-08, NJIT will offer courses at 6 extension sites throughout New Jersey including:

#### *Public Extension Sites:*

##### Atlantic County:

Atlantic Cape Community College in Mays Landing

- Computer Science (M.S.)
- Information Systems (M.S.)
  
- Computer Science (M.S.)
- Engineering Management (M.S.)

- Information Systems (M.S.)

Mercer County

Department of Environmental Protection in Trenton

- Environmental Policy Studies (M.S.)
- Environmental Science (M.S.)

Department of Transportation in Trenton (Ewing)

- Transportation (M.S.)

Morris County

Drew University in Madison

- Computer Science (M.S.)
- Information Systems (M.S.)
- Management (M.B.A. & M.S.)

Ocean County

New Jersey Coastal Community at Camp Evans in Wall

- Information Technology

Somerset County

Raritan Valley Community College in Somerville

- Management (M.B.A. & M.S.)
- Information Technology (B.S.)

**II.H.2.d. Private Extension Sites**

- Chubb in Morris County leading to a Master's of Business Administration and Master's of Management of Technology.
- Fort Monmouth in Monmouth County: Courses leading to Executive MS in Electronic Engineering and MS in Electrical Engineering.
- Howmedica in Bergen County leading to a Master's of Business Administration and Master's of Management of Technology.
- National Starch and Chemical Company in Somerset County: Courses leading to Graduate Certificate in Management of Technology, Graduate Certificate in Applied Chemistry, MS in Applied Chemistry, and MS in Management or MBA in Management of Technology.
- Telcordia in Somerset County leading to a Master's of Business Administration and Master's of Management of Technology.
- Wyeth in Pearl River, New York State leading to a Graduate Certificate in Pharmaceutical Management and Pharmaceutical Technology.

### **II.H.2.e. Customized Corporate Training**

For fifty years, NJIT has been designing and conducting customized non-credit courses that meet technology-based organizations' needs for high-quality, lifelong workforce education. Representing the arm of NJIT that brings the university's areas of academic specialization into the workplace, this unit has developed particularly close relations with the NJ Department of Labor (DOL). The DOL's Office of Customized Training implements aspects of the NJ Workforce Development Partnership Program through which eligible New Jersey companies can receive state subsidization for sixty percent of the cost of initiating on-site training programs. Qualified educational providers (such as NJIT's Customized Corporate Training Program) oversee these programs. In FY 07-08 NJIT's Customized Corporate Training program executed training contracts with over 50 companies and trained over 2,000 employees.

### **II.H.2.f. Professional Development and License Review**

The Professional Development and License Review Program offers non-credit short courses, certificates, and license reviews. In AY 07-08 over 145 non-credit courses were offered.

In Academic Year 07-08 many new courses were added to the program, bringing the total number of courses offered to over 60 courses. Among the new offerings, a Certification in Open Source Unix was initiated. At this time, NJIT is the only University nationwide that offers this program and is endorsed to offer a professional development certificate in Open Source Operating Systems

Also added was an expansive Architecture Program for Review and Professional Development. NJIT is the only facility in New Jersey to offer this array of courses and NJIT is an approved provider in the American Institute of Architects' Continuing Education System.

The non-credit Professional Development program escalated in course demand and variety. Additional courses were added to the program and include:

#### *Architecture*

- Architecture Review Courses
- Design of Steel and Wood Structures
- Marketing/Communications for Design Firms
-

*Cable Telecommunications Industry*

- Introduction to the Cable Telecommunications Industry
- Cable Telecommunications Installation
- Digital and High Speed Data
- Customer Service
- Broadband Telephony

*Cisco Networking Academy*

- Preparing for the CISSP Credential

*Computing and Technology*

- A+ Certification
- .Net Comprehensive
- C Sharp Basics and Advanced C# programming
- Fireworks MX
- Windows Application Programming using Visual C#
- Web Application Development using Visual C#
- XML Comprehensive
- Voice XML
- Introduction to EDI – Electronic Data Interchange
- Advanced EDI Concepts

*Open Source UNIX Operating Systems – NJIT is the only University nationwide that offers and is endorsed to offer a professional development certificate in Open Source Operating Systems*

- Introduction to UNIX Free BSD
- UNIX Administration I
- UNIX BSD Administrator II

*Oracle Database Technology**Safety and Environment*

- Hazwoper Refresher
- Supervisor Training
- OSHA Hazwoper Training
- Certified Hazardous Materials Manager (CHMM)
- NJ's Underground Storage Tanks Regulations

*Web Master*

- Web Manager
- Web Developer
- Web Author
- Dreamweaver
- Flash
- Fireworks MX

- Programming for the Web
- Visual Basic Programming
- Multimedia:SMIL

**II.H.3. Affordability**

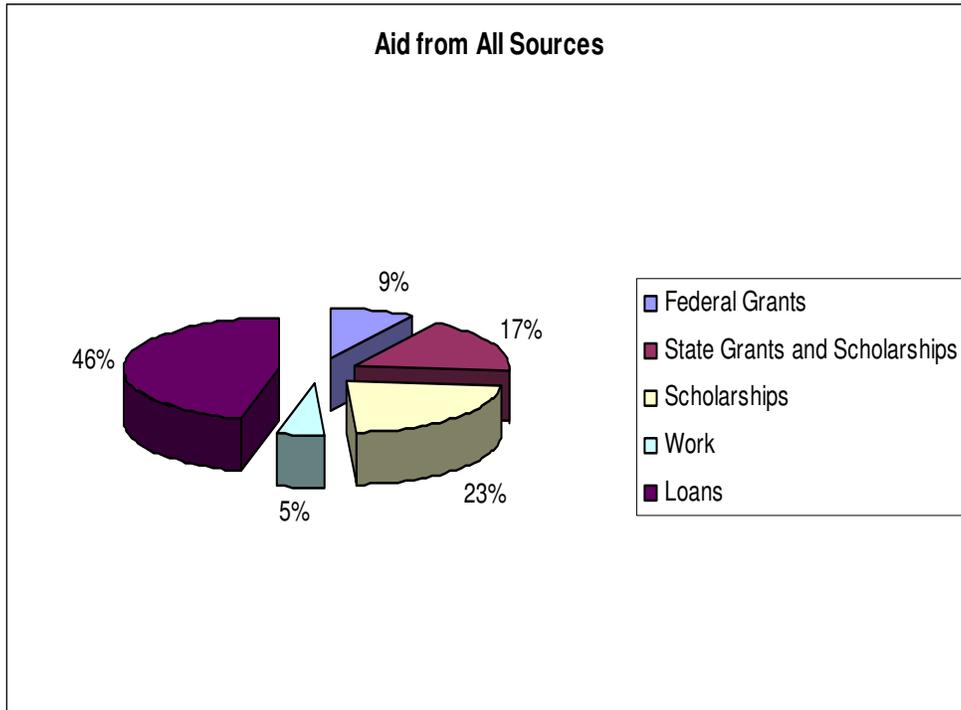
**II.H.3.a. Cost of Attending NJIT**

Table II.H.3.a. Cost of Attending NJIT		
AY 2007-2008 Full-Time Undergraduate Student		
	In-State	Out-of-State
Tuition	\$9,700	\$18,432
Fees	\$1,650	\$1,650
Room & Board	\$9,264	\$9,264
<b>Total</b>	<b>\$20,614</b>	<b>\$29,346</b>
AY 2007-2008 Full-Time Graduate Student		
	In-State	Out-of-State
Tuition	\$12,730	\$18,090
Fees	\$1,624	\$1,624
Room & Board	\$9,264	\$9,264
<b>Total</b>	<b>\$23,618</b>	<b>\$28,978</b>

**II.H.3.b. Financial Aid**

<b>NJIT Financial Aid Profile Academic Year 2007-2008</b>				
Award Type	<b>Amount Awarded</b>		<b>Percent of Grand Total</b>	
	Sub-Totals	Totals	Percent of Grand Total	
<b>Federal Grants</b>				
Pell	3,941,091			
Smart	404,000			
ACG	164,575			
SEOG	293,238			
		4,802,904	9%	
<b>State Grants and Scholarships</b>				
TAG	7,967,946			
EOF	688,844			
DSS	223,138			
OSRP	358,750			
Gear Up	9,000			
		9,247,678	17%	
<b>Scholarships</b>				
NJIT – Institutional	9,823,692			
NJIT – Other	131,360			
Endowed	1,192,998			
Alumni	198,750			
Annual	440,751			
Outside	440,086			
NJIT Graduate Tuition Remiss. *	4,189,693			
NJIT Graduate Fees Remiss. *	322,632			
NJIT Graduate Other *	218,737.20			
NJIT Graduate	1,672,516.29			
		12,227,637	23%	
<b>Work</b>				
FCWS	372,391.00			
IWS	2,190,991.00			
Stipend	6,290,751.18			
		2,563,382	5%	
<b>Loans</b>				
Direct Subsidized	8,802,302			
Direct Unsubsidized	5,742,274			
Direct PLUS	1,491,340			
Perkins	249,244			
NJIT Loan	3,503			
NJCLASS	1,798,001			
Other	6,861,626			
		24,948,290	46%	
<b>GRAND TOTAL</b>		<b>53,789,891</b>	<b>100%</b>	

Figure II.H.3.b. Student Financial Aid from All Sources



### II.H.3.c. Loans

The average loan debt at the time students receive their bachelors degree is currently less than \$18,000.