

# Rensselaer in Brief



## Overview

Rensselaer Polytechnic Institute is the nation's oldest technological research university. A nonsectarian, coeducational institution, the university offers degrees from five schools: Engineering, Science, Architecture, Humanities and Social Sciences, and the Lally School of Management and Technology, as well as an interdisciplinary degree in Information Technology.

The Institute's long-standing reputation for research and educational distinction draws students from every state and 72 foreign countries.

More than 140 degree programs in nearly 60 fields lead to bachelor's, master's, and doctoral degrees. Students are encouraged to work in inter- and cross-disciplinary programs that allow them to combine scholarly work from several departments or schools. The university provides rigorous, engaging, interactive learning environments and campuswide opportunities for leadership, communication, and creativity.

For almost two centuries, Rensselaer has maintained its reputation for providing an undergraduate education of undisputed intellectual rigor based on exceptional pedagogical innovation in the laboratory and classroom.

As a research university, Rensselaer has built an outstanding faculty whose research programs include such areas as biotechnology, nanotechnology, advanced materials, microelectronics, information technology, computational modeling and simulation, the social and political dimensions of technology, and electronic arts.

The Institute is especially well-known for its success in the transfer of technology from the laboratory to the marketplace so that new discoveries and inventions benefit human life, protect the environment, and strengthen economic development.

## Students

For the 2003-2004 academic year, Rensselaer enrolled 5,164 full-time undergraduates and 1,378 full-time graduate students in residence on the Troy, N.Y., campus, as well as approximately 1,600 in Hartford, Conn., and in distance learning opportunities around the world.

Self-identified underrepresented minorities account for 5 percent of the undergraduate student body. More than 25 percent are women. It is an exceptionally bright and ambitious group: 58 percent of the members of the class of 2007 were in the top 10 percent of their high school classes.

Students operate the Rensselaer Union and control its \$8.5 million annual budget. They belong to 23 NCAA intercollegiate teams, scores of intramural teams, and more than 130 clubs. About 30 percent of men are members of fraternities and 20 percent of women belong to sororities. Students publish a weekly newspaper and operate a 10,000-watt radio station.

Approximately 15 percent of Rensselaer graduates go on to graduate school. The average starting salary for Rensselaer bachelor's recipients in 2003 was \$50,161 and \$59,079 for master's degree recipients, higher than the national averages.

Rensselaer ranks annually among the top 50 national universities in *U.S. News & World Report*, and its graduate engineering program ranks among the top schools in the United States.

### **Faculty and Educational Innovations**

Rensselaer's more than 530 faculty members from both the Troy and Hartford campuses, include a Nobel laureate, National Science Foundation Faculty Early Career Development Award winners, members of the National Academy of Sciences and the National Academy of Engineering, and other eminent professionals.

Rensselaer faculty take pride in their dedication to teaching. In coordination with the Anderson Center for Innovation in Undergraduate Education, Rensselaer's faculty devote much thought and time to designing more dynamic teaching methods, redesigning curricula, and transforming classrooms into interactive learning environments where students learn by doing.

Rensselaer is the recipient of the "triple crown" of higher education awards—the Hesburgh, Boeing, and Pew Charitable Trust awards for innovations in undergraduate education. Rensselaer is the only technological university to win all of these prestigious honors.

The Carnegie Foundation for the Advancement of Teaching report, *Reinventing Undergraduate Education*, has cited Rensselaer's studio classes in "Ten Ways to Change Undergraduate Education."

### **Research**

One of the hallmarks of a Rensselaer education is the opportunity for intellectual partnerships between students and faculty. Particularly unique are the opportunities open to undergraduate students. During the 2003-2004 school year, 360 students participated in the Undergraduate Research Program in which students in all four class years took part in formal research.

Graduate students are involved in myriad projects from the development of "smart" materials and manufacturing processes to exploring the social and humanistic effects of technology.

Rensselaer's research ties are national and international with experiments conducted at the Saclay Laboratory in France, the Bates Accelerator, the National Radio Astronomical Observatories, Sandia, the U.S. Geological Survey, and the National Laboratories in Brookhaven, Los Alamos, and Oak Ridge. Rensselaer research awards total \$72 million.

### **Locations**

Rensselaer's historic main campus sits on a bluff overlooking the city of Troy, N.Y., and the Hudson River. The area offers a relaxed lifestyle with many cultural and recreational opportunities, with easy access to the high-energy metropolitan centers of the Northeast.

Troy is 10 miles northeast of Albany, New York's capital, and 150 miles north of New York City. The area is centrally located with easy access to Boston (3 hrs.), Montreal (4 hrs.), and Niagara Falls (5 hrs.). Troy and the Capital Region (population 873,500) are home to many well-known colleges such as Albany Medical College, Russell Sage, Siena, Skidmore, Union, University at Albany (SUNY), and the nearby Williams College.

The area offers a variety of recreational and social opportunities. The Adirondacks, the Berkshires, and the Catskills, all within an hour of Troy, offer hundreds of areas for camping, hiking, and skiing. Many clubs sponsored by the Rensselaer Union take full advantage of these natural resources.

Arts organizations of every description are also found in the area. The Troy Savings Bank Music Hall, considered by many experts to have the finest acoustics in America, is a short walk from campus as is a

new downtown arts center. Nearby Saratoga Springs is the summer home to the New York City Ballet and the Philadelphia Orchestra. Albany's Pepsi Arena hosts a wide array of top-name musical groups, sporting events, and other entertainment options.

Rensselaer at Hartford is housed in its own eight-story building on 14 landscaped acres in downtown Hartford, Conn., readily accessible from both Interstates 84 and 91. Regional sites also exist in southeastern Connecticut, northern Virginia, and Malta, NY.

## Facilities

Rensselaer's 260-acre Troy campus and its several off-site facilities provide diverse environments for learning and living. From the George M. Low Center for Industrial Innovation, with its manufacturing high bay laboratories and meeting rooms, to the Adirondack site of the Darrin Fresh Water Institute, Rensselaer's facilities support the needs of researchers and students.

The 15 major interdisciplinary research centers and several smaller ones, the Incubator Center for start-up high-tech companies, and the nationally known Rensselaer Technology Park offer undergraduate and graduate students a wide range of opportunities for research and learning through interaction with business, government, and industry.

Rensselaer's nearby Technology Park houses more than 50 companies and 2,200 employees. The Incubator Center, recently named Business Incubator of the Year, nurtures some 43 startup companies. Approximately two-thirds of participating companies have evolved from research at Rensselaer or have been started by Rensselaer alumni.

The Division of the Chief Information Officer supports student and faculty needs. A Help Desk in the Voorhees Computing Center is open days and evenings (except Saturday). Supported teaching facilities include laptop classrooms which have a power and Internet connection for each student and classrooms where instructors can present multi-media materials.

Rensselaer's Mobile Computing Program, requiring all undergraduate students to own laptop computers, has received resounding praise. Students have anytime/anywhere mobile access across the campus via more than 8,000 data ports and wireless connections.

The academic library system is one of the first in the nation to have integrated a broad range of electronic features into its online systems. Users can consult the catalog, order copies of articles, renew books, and read files of campuswide information such as job openings and grant opportunities at computer terminals on and off campus. The Rensselaer libraries contain more than one-half million books, reports, and documents, as well as more than 7,000 titles of print and electronic journals.

Institute residence facilities house up to 2,900 single students and 93 student families in a variety of living environments. Indoor and outdoor athletic facilities include the Houston Field House, which is home of the NCAA Division I Engineers ice hockey team. The Mueller Center, a \$6 million, 32,000-square-foot fitness center, houses more than 40 pieces of aerobic exercise equipment.

The mission of Rensselaer at Hartford is to anticipate and respond to the needs of individuals and organizations through the implementation of high-quality educational programs for working professionals. In support of this mission, Rensselaer at Hartford provides conference facilities suitable for small and medium-sized programs accommodating from 10 to 100 participants. Rensselaer at Hartford's conference facilities are ideal for meetings and seminars for corporate, nonprofit, and government organizations, as well as professional associations. Amenities include on-site security; free, lighted parking; bookstore; and cafeteria. Rensselaer has also been serving students and corporations in southeastern Connecticut since 1977.

## Alumni

Rensselaer's more than 85,000, including Hartford, living alumni are active and influential in all facets of society. They are engineers, physicians, attorneys, architects, writers, inventors, and entrepreneurs. By contributing to scholarships and sharing their expertise with Institute leadership, they significantly enhance campus life.

The Office of Alumni Relations, supported by the Rensselaer Alumni Association, seeks to create and sustain mutually beneficial relationships among current students, alumni, and the Institute. A full range of services are offered, including career assistance, regional and campus events, affiliate group programs, print and Internet communications, sports programs, and more. Student programs include the Red and White service organization, regional "fairs," alumni speakers, and mentoring programs.

## Accreditation

Rensselaer is accredited by the Middle States Association of Colleges and Schools and by a number of professional and academic societies. Undergraduate degree programs in chemistry are certified by the American Chemical Society; professional programs in architecture are accredited by the National Architecture Accrediting Board. The Lally School of Management and Technology is an accredited member of the Association to Advance Collegiate Schools of Business, an international accreditation. All engineering bachelor's degree programs are accredited by the Engineering Accreditation Commission of the Board for Engineering and Technology. The exception is engineering science, which is not intended as preparation for professional engineering practice.

Rensselaer at Hartford is accredited by the Middle States Association of Colleges and Schools, by the Board of Governors for Higher Education of the State of Connecticut, and by a number of professional and academic societies. Rensselaer at Hartford's Lally School of Management and Technology is an accredited member of the Association to Advance Collegiate Schools of Business.

Rensselaer admits qualified students without regard to age, race, color, gender, sexual orientation, religion, national or ethnic origin, veteran status, marital status, or disability.

## Why Not Change the World? The Rensselaer Plan

*The Rensselaer Plan*—the Institute's new strategic plan—serves as the driving force to achieve new prominence for the Institute in the 21<sup>st</sup> century. This comprehensive plan defines Rensselaer's core enterprises and sets forth the Institute's goal to double its doctoral program and virtually triple its research initiative with special focus on biotechnology and information technology.

To fulfill *The Rensselaer Plan*, President Shirley Ann Jackson identified certain areas as the highest priorities of the Institute. The initiatives under way include the recruitment and hiring of faculty constellations in biotechnology and information technology; a first-year experience initiative to support the drive to attract and retain the very best students, faculty, and staff; construction of a 218,000-square-foot Center for Biotechnology and Interdisciplinary Studies, expected to house approximately 400 faculty members, staff, and graduate students; and a world-class Experimental Media and Performing Arts Center.