Richard Weeks Hall of Engineering

Igniting Imagination
From the Dean

For more than 150 years, the School of Engineering has provided the spark igniting the imaginations of students from New Jersey, around the world, and across a host of engineering disciplines. Our continued success depends on our ability to expand and improve as changing times demand.

We are now in the midst of a dynamic era, reshaping programs to address specific societal issues and building the facilities to advance our goals. From new energy initiatives and drug delivery mechanisms, to stepping up to meet our deteriorating infrastructure demands, the School of Engineering is preparing students to be innovators and leaders.

The Richard Weeks Hall of Engineering will not just provide a state-of-the-art facility for student learning and research, it will also transform the Busch campus. Designed to anchor the School of Engineering complex, the new facility is part of the Rutgers-New Brunswick redevelopment project as presented in the university’s Strategic Plan. It will be the first structure to be built as part of this historic multi-year, multi-campus effort.

However, completing this project to its fullest extent with well-equipped labs and cutting-edge technologies requires the support and commitment of our alumni, industry and research partners, and friends. I hope you will consider the naming opportunities in this new flagship building, and join our effort with your leadership support.

Thomas N. Farris, Ph.D.
Dean
Rutgers University School of Engineering

Discovery Starts Here

Weeks Hall of Engineering is designed to bring together students, faculty, and industry to pursue new solutions and technologies in the areas of sustainability, energy, and advanced manufacturing. At 100,000 square feet, this open and collaborative facility will create a modern learning environment vital to training the next generation of engineers – and foster innovation and discovery.

- Energy-related projects, ranging from energy smart building automation, distributed energy resources, and energy storage control and integration, lead the development of sustainable energy solutions.
- The focus on sustainability and civil engineering advances innovations in transportation, infrastructure and rehabilitation, and resource management.
- Leading-edge advanced manufacturing facilities invite collaboration with a variety of industries to develop new production technologies that bring together many engineering disciplines.
A Home to Innovation...
A Pathway to the Future

A state-of-the-art LEED-certified facility, Weeks Hall of Engineering features flexible learning laboratories for advanced manufacturing and sustainable resources and systems. Students will have hands-on access to facilities dedicated to rapid prototyping, pilot manufacturing, urban and coastal water systems, intelligent transportation systems, and more. The building includes smart classrooms, collaborative workspace, dedicated student space, and advanced technology integration.

First-year engineering students will be the vibrant core of the building, with all introductory engineering courses taught in the new facility. Weeks Hall will also be home to the School of Engineering’s Department of Civil and Environmental Engineering.

Pioneer Research and Invention
Opportunities for large-scale, multidisciplinary initiatives support the development of technologies, student learning, and industry partnerships.

Shape the Student Experience
This modern learning environment features smart classrooms, laboratory space, and equipment. Courses taught as part of the first-year engineering curriculum will be scheduled in the new facility.

Drive Technology Alliances
Between Rutgers’ desirable Northeast Corridor location and the capabilities housed within Weeks Hall, the School of Engineering expects to increase technology alliances in robotics and manufacturing.

New Home to Civil and Environmental Engineering
This space will include administrative offices, a conference room, and computing classrooms, as well as student spaces and faculty and research staff offices.
Blueprint for Giving

The Richard Weeks Hall of Engineering honors 1950 alumnus Richard N. Weeks, chairman of Weeks Marine, one of the leading marine construction, dredging, and tunneling firms in the United States and Canada. This is the first School of Engineering building named for an alumnus.

Spaces in the new building may be named by individuals and industry partners. Available naming opportunities include:

- Lecture Hall
- Leading-edge Learning Laboratories
- Student Commons
- Student Classrooms
- Graduate Student Space
- Leadership Suite
- Conference and Collaboration Spaces

Collaborative Work and Environmental Spaces

New Jersey Advanced Manufacturing Institute

Sustainable Systems

Civil and Environmental Engineering

Naming Opportunities

Join Us in Igniting the Future

Weeks Hall depends on the investment of the school’s alumni, industry partners, and friends. This is a unique opportunity to make an enduring impact on engineering education at Rutgers through transformational and lifetime gifts.

Help us ignite the path to tomorrow and beyond.

“One has only to look at the backgrounds of almost all the engineering greats in our history to appreciate what Rutgers does, and why a first class School of Engineering facility is a great investment.”

Richard S. Weeks
CEO and President
Weeks Marine, Inc.
Join Us in Igniting the Future

Richard Weeks Hall of Engineering

Naming Opportunities

Collaborative Work and Environmental Spaces

Atrium/commons
First and Second Floor Spaces: $3,000,000
First Floor Atrium: $2,000,000
Second Floor: $1,000,000

Lecture Hall
Reserved

Smart Classrooms
First Floor Large Classroom: $1,500,000
Second Floor 72-seat Classroom: $750,000
Second Floor 35-seat Classroom: $400,000

Robotics Lab
$750,000

Aerospace Lab
Reserved

Leadership Suite
Dean’s Office: Reserved
Executive Conference Room: $500,000
Leadership Offices: $50,000 - $75,000

New Jersey Advanced Manufacturing Institute

Undergraduate Concepts Labs and Research Terrace
First Floor Undergraduate Concepts Lab: $1,000,000
Second Floor Undergraduate Concepts Lab: $750,000
Research Terrace: $1,000,000

Manufacturing Pilot Lab and Second Floor Catwalk
$750,000

Rapid Prototyping Lab
$750,000

Microfabrication Lab
$1,000,000

Sustainable Systems

Energy Lab (and Roof Deck/Balcony)
$2,000,000

Sustainable Infrastructure Lab
Reserved

Urban Informatics Lab
$150,000

Intelligent Transportation Systems Lab
$150,000

Civil and Environmental Engineering

Urban and Coastal Water System Lab
Entire Urban and Coastal Waterways Lab: $800,000
Urban and Coastal Waterways Physical Testing Lab: $600,000
Urban and Coastal Waterways Control Center: $200,000

Geo-Systems Laboratory
Soil Mechanics Instructional Lab: $400,000
Soil Mechanics Research Lab: $200,000
Geo-Environmental Lab: Reserved

Environmental Process and Molecular Analysis Lab
Entire Environmental Process and Molecular Analysis Lab: $500,000
Environmental Engineering Lab: $150,000
Environmental Chemical Analysis Lab: $200,000
Environmental Ultraclean Lab: $150,000

Civil and Environmental Engineering Offices and Leadership Suite
Chair’s Office: Reserved
Conference Room: Reserved
Student spaces, faculty and research staff offices:
$25,000 - $50,000

Join us in igniting the future
For more information regarding how you can support Rutgers Engineering and Weeks Hall, contact Annie Nienaber, Assistant Dean, Development, at annie.nienaber@rutgers.edu or 848-445-2369.
Civil and environmental engineering tackles issues of global importance, including the sustainability of infrastructures, the impact of transportation on the environment, deploying emerging concepts and technologies in the construction of new facilities, and much more.

Urban and Coastal Water System Laboratories
The Urban and Coastal Water System Labs will be at the leading-edge of water resources engineering and management for urbanized and urbanizing coastal regions. These labs will allow for modeling of coastal areas to develop and demonstrate flood risk reduction strategies for vulnerable urban communities.

- Urban Coastal Water Systems Laboratories
  - Urban and Coastal Waterways Physical Testing Lab
  - Urban and Coastal Waterways Control Center

Geo-Systems Laboratories
The Geo-Systems Labs are focused on finding sustainable solutions for modern environmental and geo-technical challenges.

- Geo-Systems Laboratories
  - Soil Mechanics Instructional Lab
  - Soil Mechanics Research Lab
  - Geo-Environmental Lab
Environmental Process and Molecular Analysis Laboratories

The grand challenges facing the environmental engineering field occur at the extremes of scale and are tracked through engineered treatment systems, watersheds, and global systems. The Environmental Process and Molecular Analysis Labs will be home to state-of-the-art instrumentation for measuring pollutants in air, water, and soil for projects from bench scale treatability studies to field-scale fate and transport research.

- Environmental Process and Molecular Analysis Labs
  - Environmental Engineering Lab
  - Environmental Chemical Analysis Lab
  - Environmental Ultraclean Lab

Civil and Environmental Engineering Offices

Weeks Hall is the new home of the Department of Civil and Environmental Engineering. Department administrative offices, a conference room, and computing classrooms will be housed on the third floor.

- Chair’s Office
- Conference Room
- Faculty, Student, and Research Staff Offices
Sustainable Systems

Living laboratories, physical and cyber-system environments, indoor and outdoor monitoring, and miniature prototypes allow for replication of real-world environmental challenges and advances in research and education.

**Energy Laboratory (and Roof Deck/Balcony)**
The Energy Lab provides students, faculty members, and industry partners with a collaborative environment specific to sustainable energy solutions. A combination of physical and cyber-system technologies, including live feeds from on-campus power sources such as solar panels, wind turbines, and fuel cell equipment, this living laboratory advances smart grid analysis and modeling to determine how different power source and load combinations respond to differing commercial and environmental demands. Industry access to these energy simulations, as well as smart grid and cybersecurity training and education, will assist energy providers in providing improved reliability and efficiency, addressing critical national and global energy challenges.

**Sustainable Infrastructure Laboratory**
Sustainability of our nation’s infrastructure depends on the ability to monitor and accurately describe conditions and then recommend and implement effective interventions, as needed. The Sustainable Infrastructure Lab provides integrated modeling, simulation, and development of prototype equipment and sensory systems for infrastructure assessment and monitoring and rehabilitation.

**Urban Informatics Laboratory**
Coastal cities, home to over half of the population in the U.S. and over 38% worldwide, are facing intensified natural and human disturbances such as hurricanes, sea level rise, and urban development. By integrating indoor physical testing with outdoor field monitoring, the Urban Informatics Lab provides a platform to advance research and education in urban sustainability and resilience.
**Intelligent Transportation Systems Laboratory**

The Intelligent Transportation Systems Lab facilitates research on connected and autonomous vehicles, transportation big data analytics, and drone-based traffic management. Miniature prototypes of vehicle-infrastructure platforms will replicate real-world transportation systems, while a server system will convert data from traffic sensors, probes, video, smart devices, social media, and connected vehicles. A 3D visualization “cave” will combine with urban analytics to study traffic accidents, congestion management, and human factors in a driver-simulator environment.
Rutgers established the New Jersey Advanced Manufacturing Institute (NJAMI) to distinguish and elevate the state’s historic manufacturing profile. At Weeks Hall, dedicated space provides unique opportunities for faculty, students, and industry partners to develop and test innovative devices in areas of information technology, renewable energy, sensing devices, and health and life sciences.

**Undergraduate Concept Labs and Research Terrace**

Two large undergraduate Concept Labs provide collaborative space for students to design and build projects. Open to all students in every engineering discipline, the spaces offer an ideal environment for students to work together and exchange ideas, while also providing design and build space for senior capstone design projects. The Research Terrace offers an outdoor facility for building, test driving, and/or flying projects.

**Manufacturing Pilot Laboratory**

The Manufacturing Pilot Laboratory provides a unique space dedicated to the assembly, testing, and modification of student project prototypes. This high-bay lab space has a second floor perimeter catwalk for viewing projects below.

**Rapid Prototyping Laboratory**

Advancements in rapid prototyping, commonly known as 3D printing, have greatly accelerated in recent years, offering immediate production of conceptual ideas. The state-of-the-art Rapid Prototyping Lab provides instant production and testing of designs.

**Microfabrication Laboratory**

The Microfabrication Lab is designed to be a critical resource for research and education in the area of information technology. Students, faculty members, and industry partners will collaborate in this space to design and produce innovative devices in the areas of information technology, renewable energy, sensing devices, and health and life sciences. This will be one of only three such facilities in the state, making it an educational and research resource with benefits for engineering students and regional industries.
Collaborative Work and Environmental Spaces

The new gateway for the Rutgers engineering community employs state-of-the-art technologies in an open, interdisciplinary venue designed to foster collegial and industry research and education partnerships.

**Atrium/Commons**
Open space and natural light, emanating through two-story glass walls and overhead skylights, creates a welcoming entryway to the Atrium and Commons area of Weeks Hall. Unique features include a technology wall for engineering-related displays and gathering or touchdown spaces where students and faculty can meet informally or find a quiet niche for themselves. The Atrium and Commons area is surrounded by collaborative workspaces, smart classrooms, a lecture hall, and living laboratories. This open and flexible space also transitions to an event venue.

**Lecture Hall**
A prominent feature of Weeks Hall is the two-story lecture hall with seated capacity for 280 guests.

**Smart Classrooms**
The three smart classrooms in Weeks Hall allow for faculty to easily pivot student learning from class lectures to team-based collaborative activities. These classrooms, in various sizes, are designed with first-year students in mind.

The high-tech classrooms will be equipped for project-based learning, which is at the center of our first-year engineering curriculum.

- First floor large classroom
- Second floor 72-seat classroom
- Second floor 35-seat classroom

**Robotics Lab**
Recent advances in machine learning – personal robots, automatic cars, and even brain-controlled prostheses – have set the stage for robotics to make real and meaningful advances to our quality of life. The Robotics Lab provides space and infrastructure for research and development for enhanced systems ultimately impacting manufacturing, agriculture, elder assistance, home automation, vehicle automation, and more.
Aerospace Lab
The Aerospace Lab, a two-story space strategically placed adjacent to the Manufacturing Pilot Lab and opening onto the Research Terrace, is a testing space for students to experiment with drones and aerospace projects. The enclosed area features a protected environment for test flights to be done year-round and in any weather, and the catwalk around the second story perimeter allows for an elevated view.

Leadership Suite
Located on the top floor of Weeks Hall, the Leadership Suite includes the dean’s office, a large executive conference room, and leadership offices. Ample natural light and excellent views of the engineering campus provide an ideal environment for faculty members, alumni, and industry partners to exchange ideas and collaborate.