VILLANOVA UNIVERSITY
College of Engineering

VILLANOVA ENGINEERS: IGNITING CHANGE
1,067 undergraduates
85% graduate within 5 years (versus national average of 47%)
92% freshman-to-sophomore retention rate (versus national average of 76%)
28% female (versus national average of 19.9%)
With an engineering degree you’ll learn how the world works—and how to make it work better. Many schools graduate engineers who solve problems. We graduate engineers who ignite change.

In the classroom
From day one, you’ll learn to think like an engineer in small classes taught by faculty members. You’ll benefit from the expertise of those who bring engineering to life through hands-on instruction that bridges theory and practice. Entrepreneurially minded learning experiences both inside and outside the classroom will help you realize your creative and innovative potential.

In the laboratory
Work alongside faculty on their latest research. Connect with industry professionals on real-world challenges in the Multidisciplinary Design Lab. Collaborate on a senior project, which may benefit a community down the street or around the world. In the process, you’ll develop leadership and team-building skills, and learn best practices for laboratory research and technical communication.

In the community
With service learning built into the curriculum, there are countless opportunities for Villanova engineers to take what they learn in the classroom and apply it to some of the world’s most complex challenges.

Our rigorous curriculum is rooted in the liberal arts and our Augustinian values. You don’t just learn what to do as an engineer, but how to do it in a way that benefits humanity and builds a sustainable society. Our students, faculty and alumni have many stories to share about their transformative Villanova engineering experiences.

What will your story be?

Gary A. Gabriele, PhD
Drosdick Endowed Dean of Engineering

What Change Will You Ignite?
The first chapter of your Villanova Engineering story begins in the fall semester of your first year with courses in math, science and Augustinian culture, as well as a core course in engineering fundamentals. Our active-learning, problem-based approach prepares you for a team-based, faculty-mentored multidisciplinary engineering project later in the semester. In the spring, you choose a different project, exposing you to other engineering disciplines. With the knowledge and experience you’ve gained, you are able to make a more informed decision on your choice of an engineering major. Finally, once you have officially declared a major, you are immersed in a 7-week educational experience in your discipline.

Recent multidisciplinary freshmen projects:
- Robotics
- Cyber Crime Scene Investigation and Digital Forensics
- Automatic Blood Pressure Measurement
- Engineering for Developing Societies
- Adsorption as a Drinking Water Treatment Process
- Biofuel: Processes and Sustainability

Each student team presents its project findings, which strengthens communication skills and teaches best practices for presenting scientific information.

The freshman project gives you a chance to see a real application of what you’ll be doing as an engineer, and provides a great introduction to the field as a whole. It also helps you adjust to working in teams, which is something you’ll do throughout your career.”
—Daniel Fetsko ’19 CE

As a freshman you are assigned an academic advisor who is a full-time faculty member in your major. Your advisor will help ensure proper course selection and your advancement in the program.

Profile of the Freshman Class (Class of 2019):
- 258 students
- 29% female, 71% male
- 18% ethnic minority
- Represents 29 states, Puerto Rico and five countries
- 93% in the top 25% of their high school classes
- 2110–1880 combined range SAT score
- 20 enrolled in the University Honors program

“Villanova is going to provide you with so much more than a piece of paper with a degree on it. Your classmates will quickly turn from strangers to lifelong best friends. This is all thanks to the freshman engineering program.”
—Kenna Bryan ’16 CpE
CHEMICAL ENGINEERING (ChE)

CAUSING A REACTION

Chemical engineers use the principles of mathematics, chemistry, physics and engineering sciences to creatively solve technical, commercial and social problems. These solutions must respond to economic constraints, as well as social, ethical, environmental and safety implications.

CHEMICAL ENGINEERING (ChE)

CHEMICAL ENGINEERING (ChE) majors earn a minor (Class of 2015)

52%

CHEMICAL ENGINEERING (ChE)

CHEMICAL ENGINEERING (ChE) majors are women (2015–2016)

44%

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CHEMICAL ENGINEERING (ChE)

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52%
Civil and environmental engineers create infrastructure solutions. Because the scale of these projects often affects large segments of the population, the responsibilities of civil engineers extend beyond mere physical facilities. Villanova faculty prepare you to play a vital role in improving quality of life while protecting the environment.

DESIGNING AND CONSTRUCTING THE FUTURE

CIVIL AND ENVIRONMENTAL ENGINEERING (CEE)

CEE students are grounded in the fundamentals of:
- Environmental Engineering
- Geotechnical Engineering
- Structural Engineering
- Transportation Engineering
- Water Resources Engineering

UNDERGRADUATE RESEARCH OPPORTUNITIES

In addition to a senior Capstone Design project, students may take a course of undergraduate research where they work directly with a faculty advisor and a graduate student mentor, and receive academic credit.

Recent undergraduate projects include:
- Design of a single span dual steel superstructure highway bridge
- Carbon-facilitated surface hydrolysis of nitrogenous contaminants
- Impact of high-friction surface treatment on crash types and rates
- Transportation engineering research for local municipalities
- Structural design in rural communities in Honduras, Panama and Cambodia

EXTRACURRICULARS

CEE students compete on extracurricular teams:
- GeoWall
- Steel Bridge
- Concrete Canoe

PART OF THE STORY

Some 32% of CEE students participate in the University’s study abroad program. “In an increasingly global environment, studying abroad as an engineer taught me the valuable lesson that not everyone does it like America does it.”

—George Zimmer ’15 CE

“I was a little intimidating at first, but when you work on a project like this for an entire semester, you get to know the talking points really well.”

—Adam Macker ’15 CE

referring to the client presentation of his senior capstone project, sponsored by the Delaware Valley Regional Planning Commission.

93% CEE majors graduate with either an internship, research or military experience (Class of 2015)

54% CEE department faculty are women
COMPUTER ENGINEERING (CpE)

FASTER, SMALLER, BETTER, SAFER

Computer engineers blend theories from computer science and applications from electrical engineering to develop new hardware and software for computer systems. These engineers, who are in high demand, optimize and advance the core technologies behind the Internet, wireless communications and mobile computing.

CpE AT VILLANOVA
You can choose to specialize in:

- Computer Networks
- Cybersecurity
- Microcontrollers
- Multimedia
- Real-time Digital Signal Processing
- Software Engineering

Technical electives include:

- Biomedical Signal Processing
- Android Mobile Apps Programming
- Advanced Digital System Design
- Select courses from the Department of Computer Science

UNDERGRADUATE DESIGN PROJECTS
Every student completes a senior Capstone Design project, which covers three semesters and involves student teams working on a variety of real-world problems. You also can speak with your advisor about research opportunities in one of these areas:

- Computer Systems
- Digital Systems Design
- Cybersecurity
- VLSI Design

PART OF THE STORY
In the Villanova Student Entrepreneurship Competition, Matthew Myers ’16 CpE won third place for Vivify, a wrist-worn device that constantly monitors heart rate and vibrates if it senses the user is falling asleep. Matt, who aspires to be an entrepreneur, says, “The opportunity to pitch an idea to a room full of potential investors was a highlight of my college years!”

“I would love to be the person designing the security system for our country’s computer networks, protecting us from cyberattacks. I have taken a course in cybersecurity and learned about cryptography, and my senior design project was with Lockheed Martin doing malware analysis.”
—Christine Fossaceca ’16 CpE
now a cybersecurity researcher at the MIT Lincoln Laboratory

“Top 10 jobs” can be earned with a Computer Engineering degree (Forbes 2016)

5 years to earn a Bachelor of Science in Computer Engineering and a Master of Science in Cybersecurity
Electrical engineers use mathematics, science and technology to design, construct and maintain a wide array of products, services and information systems. From the nanoscale to the macroscale, products and systems that utilize electromagnetic waves, electrons and photons in their operations belong to the field of electrical engineering.

EE AT VILLANOVA

All EE students study:
- Analog and Digital Electronics
- Communication Systems
- Control Systems
- AC and DC Circuits
- Electric Energy Systems
- Electromagnetics
- Electronic Materials and Devices
- Signal Processing

Areas of specialization include:
- Biomedical Engineering
- Electric Energy Systems
- Electronics
- Embedded Systems
- High Frequency Systems
- Signal Processing

COMPUTER ENGINEERING MINOR

Learn computer engineering fundamentals, as well as computer architecture, C++, algorithms and data structures. Based on area of interest, a variety of electives also are available.

UNDERGRADUATE DESIGN PROJECTS

Over three semesters, you will complete a real-world senior Capstone Design project with a team of fellow EE/CpE majors. Industry partners who have sponsored these projects include:
- Harris Corporation
- Lutron
- Lockheed Martin
- RT Logic

PART OF THE STORY

In Nicaragua—where Villanova has a formal cooperation agreement with UNICEF—ECE students have contributed to a telehealth program that’s making health care accessible to remote communities. They’re also collaborating on projects and taking a sustainable business course with peers at a Nicaraguan university.

Villanova’s first MacArthur “Genius” Fellow earned his BS and MS in Electrical Engineering

“Villanova was definitely the right choice for me. I learned to work in a team environment, and I never felt the need to compete for my grade. Additionally, I really loved doing the Bioengineering minor within the ECE department.”
—Liesl Krause ’16 EE

4.5 years to earn a bachelor’s degree in both Electrical and Computer Engineering

ELECTRICAL ENGINEERING (EE)

Harnessing the Power

Electrical engineers use mathematics, science and technology to design, construct and maintain a wide array of products, services and information systems. From the nanoscale to the macroscale, products and systems that utilize electromagnetic waves, electrons and photons in their operations belong to the field of electrical engineering.
MECHANICAL ENGINEERING (ME)

The field of Mechanical Engineering nurtures designers and inventors who layer scientific principles on a strong mathematical foundation to develop creative solutions to the world’s challenges.

ME AT VILLANOVA
Mechanical Engineering is one of the broadest engineering disciplines, and students are exposed to many different career possibilities. The curriculum includes both engineering fundamentals and cutting-edge technology.

Deepen your studies in your junior year with an official concentration in one of these areas:
- Mechanics and Materials
- Thermal Fluids Systems
- Dynamics and Controls

Seniors can choose electives from a broad list of technical subjects, including:
- Biomechanics
- Flight Dynamics
- Mechatronics
- Nanomaterials
- Robotics
- Renewable Energy

UNDERGRADUATE RESEARCH OPPORTUNITIES
Seniors complete a two-semester Capstone Design experience. Many of these projects are industry-sponsored, and a significant number run through the College’s Multidisciplinary Design Lab. Some students choose a service-learning trip as the basis for their work. Recent projects include:
- Industry-sponsored: 3-D underwater mapping with stereo sonar
- International Service: Water utility operations and data acquisition
- Automotive Design: Remote-controlled Formula SAE traction control module
- Medical Devices: Design and construct a better manikin for CPR training
- Robotics: Oculus Rift integration with low-cost explosive ordnance disposal robot

PART OF THE STORY
In fall 2016, the department introduced a minor in Aerospace Engineering, which includes courses in Elements of Aerodynamics and Aerospace Vehicle Design.

Other popular minors are Mechatronics and Engineering Entrepreneurship.

ME majors graduate with either an internship, research or military experience (Class of 2015)

94%

ME students worked side-by-side with faculty as research assistants in 2015–2016

“At Villanova, I learned engineering fundamentals and had the opportunity to conduct state-of-the-art research on globally important engineering problems with professors who are experts in their fields.”
— Joseph Schaadt ’15 ME
2015 Falvey Scholar, 2016 Fulbright Scholar
Teams of senior engineering students can be found in the College’s Multidisciplinary Design Lab (MDL) working with engineers from partner companies to conduct real-world design projects. Students help companies solve engineering challenges in a space custom-made for and dedicated to high-tech collaborative design—a core activity of engineering.

Recent MDL partners and projects include:

- **Harris Corporation**: 3-D underwater mapping with stereo sonar
- **PPL Corporation**: Equipment and line monitoring
- **Air Products**: Expansion of natural gas from a pipeline
- **RT Logic**: Channel simulator improvements
- **Covanta**: Improvements in cost efficiency and recycling of cathode ray tubes
- **United Technologies Inc.**: Autonomous drone for collecting water samples
- **Jaros, Baum & Bolles**: Stairway pressurization systems design
Villanova’s size, world-class facilities and dedicated “teacher-scholar” faculty mean that Villanova Engineering students have access to research opportunities rarely available to undergraduates in other top-tier engineering programs.

Student researchers:
- Apply classroom and laboratory concepts to real-world problems
- Become motivated to pursue graduate studies
- Network with and receive mentoring from faculty outside of class
- Make industry connections
- Develop leadership and team-building skills
- Understand best practices for research and scientific communication
- Improve critical thinking skills
- Get paid, get credit and get experience!

CENTERS OF EXCELLENCE
In addition to research conducted within individual departments, undergraduates have opportunities to work in the College’s high profile research centers:

Center for Nonlinear Dynamics and Control (CENDAC)
CENDAC is distinguished by its strong interdisciplinary teams, close collaboration with sponsors, and expertise in nonlinear dynamic systems theory and applications.

Center for Energy-Smart Electronic Systems (ES2)
This National Science Foundation Industry/University Cooperative Research Center develops methodologies, tools and systems to maximize energy efficiency for the operation of data centers.

Villanova Center for the Advancement of Sustainability in Engineering (VCASE)
The VCASE mission is to protect and restore our environment through the integration of sustainability principles in engineering practices.

Villanova Center for the Analytics of Dynamic Systems (VCADS)
The College’s newest research center, VCADS develops new tools and techniques for uncovering the underlying dynamics of big data in fields like medicine, finance and engineering.

“There are tons of professors doing world-class research that want to use undergraduates in their labs. Through my department, I got to stay on campus researching and earning money for a summer. I had an awesome experience to put on my resume, comparable to an internship, and I contributed to a paper that is in the process of being published.”
— Nicholas Fonzo ’16 ChE

53% engineering undergraduates involved with independent study or faculty research (Class of 2015)
Engineering Minors

Minors in the College of Engineering

The following programs are available to all engineering students who satisfy the prerequisites:

Aerospace Engineering
Requires courses in Elements of Aerodynamics and Aerospace Vehicle Design, and offers a variety of electives, including Compressible Fluid Flow, Flight Dynamics, Orbital Mechanics, Fiber Composite Structures and more.

Biochemical Engineering
Prepares graduates for the biopharmaceutical industry—designing and optimizing processes for the manufacture of antibiotics, vaccines, antibodies and cell therapy products.

Bioengineering
Bridging Engineering, Liberal Arts and Sciences, and Nursing, this field blends engineering and biology to produce new knowledge, processes, procedures, systems and products for the benefit of society.

Biomedical Engineering
Combines engineering principles with medical and biological sciences to design and create equipment, devices, computer systems and software used in health care and the human body.

Electrical Engineering
Study MATLAB programming and electromagnetics, and then choose between Signal Processing and Discrete-time Signals and Systems, and Electronic Materials and Devices and Analog Electronics.

Engineering Entrepreneurship
The College’s most popular minor program equips you with an entrepreneurial mindset, enabling you to contribute to business success. The program begins with a course in Creativity and Innovation, and covers a range of topics.

Sustainability Studies (offered by Liberal Arts and Sciences in collaboration with Engineering)
This interdisciplinary minor requires all students to take Seminar in Sustainability Studies, and to select two courses from the humanities, social sciences and technology. The Sustainability Studies program also offers two summer study abroad opportunities in Lille, France, and Costa Rica.

Also Available:

Mechatronics is open to mechanical, electrical and computer engineering students, and takes an interdisciplinary look at the design, development and control of advanced hybrid systems (robotics, vehicles, automotive subsystems, etc.).

A minor in Computer Engineering is available to electrical engineering majors.

It was definitely my Engineering Entrepreneurship minor that helped me to stand out and create a brand for myself while looking for post-grad employment. The ability to think not only analytically, but creatively and with a business sensibility, are skills that not every Chemical Engineer possesses.”
—Paige Innamorato ’16 ChE

“Part of the Story
The College’s newest minors—Aerospace, Biochemical and Biomedical Engineering—were added to the offerings in response to industry and student demand.

“We are excited to expand our engineering minor offerings,” said Professor James Roddy. “These new minors allow our students to explore their interests and develop skills that will help them stand out in today’s competitive workforce.”

Engineering students interested in Biomedical Engineering, Robotics or Engineering Entrepreneurship may choose to expand their studies in a number of engineering minor program areas. You can satisfy other curiosities by exploring dozens of options offered by Villanova’s College of Nursing, College of Liberal Arts and Sciences, or the Villanova School of Business.

“65% of engineering graduates earned a minor (Class of 2015)”
The Entrepreneurial Mindset

The College’s unique Engineering Entrepreneurship minor (page 21) is just one example of the entrepreneurial mindset you’ll find across Villanova’s campus. As a member of the Kern Entrepreneurial Engineering Network, the College has incorporated entrepreneurially minded thinking throughout the curriculum, and offers numerous extracurricular activities and competitions as well, including:

- **Idea Bounce**—A required freshman event, each group is given 90 seconds to present, or “bounce,” an idea to an audience and panel of judges.
- **24-Hour Imagination Quest**—A combination of The Amazing Race, Shark Tank, The Apprentice and Fear Factor, this fast-paced team competition takes place over a 24-hour period.
- **Android Hackathon**—Teams are challenged to develop an award-winning Android application within a 24-hour time period.
- **Villanova Student Entrepreneurship Competition**—This one-semester, interdisciplinary competition requires students to innovate, create and design products, businesses and/or services to fill a variety of needs.
- **Villanova Summer Innovation Incubator**—Self-directed teams of engineering students receive resources and support to tackle real-world challenges. Students spend two months on Villanova’s campus in an incubator-like environment pursuing technological solutions of their own design.

**PART OF THE STORY**

The ICE (Innovation, Creativity & Entrepreneurship) Institute is a multidisciplinary driver of cross-college learning and entrepreneurial thinking at Villanova. The Idea Accelerator is the Institute’s physical space for supporting the development of entrepreneurial activities.

“It helped us get a taste of the marketing and delivery aspect of product development, which is crucial in the professional development of any engineer.”

— Bryan Ramirez ’18 CE  
Idea Bounce participant
Villanova Engineering Service Learning—(VESL) provides students with project-based learning experiences that reinforce engineering fundamentals and demonstrate excellence in engineering education. Participation comes in a variety of forms, from in-class projects, independent study and undergraduate research, to school break trips and summer internships. Regardless of format, VESL builds a commitment to lifelong learning and service with a global perspective.

Recent partners and projects include:
- Caramanico Foundation—school design and construction in Cambodia
- Golden West Humanitarian Foundation—unexploded ordinance detection, removal and remediation in Southeast Asia
- Profugo—community development center in India
- Chero-Payano Mission (Father Wally)—water resources master plan, and bridge and dam designs in Panama
- El Polvenir/Water Aid—community water supply infrastructure in Nicaragua
- Asociación de Desarrollo Integral y Sostenible—Nova Mobile Health Program in Nicaragua
- Catholic Relief Services—sustainability and water resources engineering design in Madagascar
- Wells for Relief—sustainable hand pumps in Ghana

The College of Engineering has been involved with STEM (Science, Technology, Engineering and Math) education outreach to middle- and high-school students for more than a decade.

Villanova Engineers established these programs:
- NovaCANE (Villanova Community Action by New Engineers) volunteers visit area middle schools where they conduct hands-on engineering projects with students and provide teacher education.
- VESTED (Villanova Engineering, Science, and Technology Enrichment and Development) brings Philadelphia-area high school students to campus over eight weekends for engineering experiences, college preparation classes, team building opportunities and discussions with industry leaders.
- Engineering Is for Girls! brings local Girl Scout troops and school students to campus for a full day of hands-on, mechanical engineering projects.

In addition to these Villanova programs, the College also participates in national programs and events:
- FIRST (For Inspiration and Recognition of Science and Technology) Tech Challenge—an annual robotics competition that is held in partnership with the School District of Philadelphia
- MATE (Marine Advanced Technology Education)—an annual underwater robotics competition organized by the Department of Mechanical Engineering

Philadelphia-area students from 6th–12th grades involved in Villanova’s STEM programs

"Being able to put what we learn into practice, while also helping communities around the world, is something truly special to Villanova engineers. We are different here, because we actively strive to make the world a better place and do so throughout their undergraduate careers.”
—Carrie Franchino ’16 ME

"Villanova Engineering sets itself apart with the amount of opportunities it offers. Whether through an internship, a career or a service experience, Villanova Engineers are privileged with a seemingly endless amount of opportunities.”
—Jacob Holman ’16 CE

57% engineering students participate in a service-learning project or experience (2015–2016)
With dozens of extracurricular activities available campus wide, engineering students can pursue everything from athletics and the arts, to race cars and robotboats.

**Engineering Competition Teams**
- Formula SAE Racing
- Steel Bridge
- Chemical Engineering Car
- GeoWall
- Concrete Canoe
- Roboboat and RobotX

**Professional Associations**
- American Institute of Aeronautics and Astronautics
- American Institute of Chemical Engineers
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- Institute of Electrical and Electronics Engineers
- National Society of Black Engineers
- National Society of Professional Engineers
- Society of Women Engineers

**Industry Exposure**
Students connect with members of the engineering industry throughout the academic year through a variety of on- and off-campus opportunities, such as:
- Alumni career panels
- Career Compass (see page 16)
- Career fairs and information sessions
- Company site visits
- Engineering and University-wide student competitions
- Guest speakers
- Industry sponsored projects
- Internships
- Research opportunities
- Service learning and STEM programs

“Getting involved doesn’t just have to be with engineering organizations. Those are great options, but as an orientation staff member, as well as a member of Greek life, campus ministry and a past resident assistant, I can definitely say there are a wide variety of clubs to join, so find your passion and write your own story!”
—Katherine Woolls ’16 ME

**PART OF THE STORY**
Time management skills are a must, but dozens of students manage to play varsity sports and excel as engineering majors at the same time. Soccer goalie Emma Meyer ’17 CHE says, “I was looking for a school that had big time sports, but also matched what I was looking for with academics. I wanted the whole college experience, and Villanova has everything I wanted.”
Where will Villanova take you?

ANYWHERE YOU WANT TO GO

MEAN STARTING SALARY BY MAJOR
(CLASS OF 2015)
Chemical Engineers: $63,763
Civil Engineers: $55,468
Computer Engineers: $66,626
Electrical Engineers: $65,340
Mechanical Engineers: $64,646

A FEW OF THE MANY PLACES WHERE VILLANOVA ENGINEERS GO TO WORK
AECOM
Air Products
Amazon.com
AT&T
Cantex Corporation
Comcast
Deloitte Consulting
Dow Chemical
Exxon Mobile
General Electric
Goldman Sachs
Harris Corporation
Lockheed Martin
Microsoft
Northrop Grumman
Pratt & Whitney
Proctor & Gamble
SpaceX
Thomson Tomasetti
Turner Construction
U.S. Army
U.S. Navy
Verizon

A SAMPLING OF THE INSTITUTIONS WHERE VILLANOVA ENGINEERS CONTINUE THEIR EDUCATIONS
Columbia University
Johns Hopkins University
MIT
Paradise Valley University
Trinity College, Dublin, Ireland
University of California, Berkeley
University of Michigan
University of Virginia
U.S. Navy Nuclear Power School
Villanova University

95.8% successful placement rate
(CLASS OF 2015)

WHERE WILL VILLANOVA TAKE YOU?
average starting salary
for engineering graduates
(CLASS OF 2015)
$62,750

PART OF THE STORY
In addition to our nationally recognized undergraduate program, Villanova’s College of Engineering offers award-winning graduate programs as well. A five-year BS/MS joint degree option is available for all majors, and master’s degrees also are offered in Biochemical Engineering, Cybersecurity, Sustainable Engineering and Water Resources and Environmental Engineering. The College also boasts a doctoral program that enrolls more than 70 students.

“The reputation that comes with graduating from Villanova—hard-working, insightful and community-focused—is the reason why so many Villanovans help out other Wildcats. We’re family!”
— Carrie Franchino ’16 ME

28
A SAMPLING OF OUR ALUMNI CHANGE MAKERS

Lt. Col. Andrew M. Allen (USMC, Ret.) ’77 ME: former NASA astronaut who served as commander of a 1996 mission of the space shuttle Columbia

William M. Brown ’84 ME, ’87 MSME: Chairman, CEO and President, Harris Corporation; Member President Obama’s National Security Telecommunications Advisory Committee

Nance K. Dicciani, PhD, ’69 ChE: President and CEO (Ret.), Specialty Materials, Honeywell International Inc.; Member, President’s Council of Advisors on Science and Technology

Coleen Burke-Finney ’90 ME, ’99 MBA: Director, Strategy Integration and Execution Advanced Systems, Boeing Company

John “Jack” G. Drosdick ’65 ChE: President and CEO (Ret.), Sunoco Inc.

Craig J. Fennie, PhD, ’93 EE, ’96 MSEE: 2013 MacArthur Fellow; Assistant Professor, Department of Applied and Engineering Physics, College of Engineering, Cornell University

Brian Glaister ’03 ME: Co-founder, Cadence Biomedical

John Paul Jones III ’72 ChE: Chairman and CEO (Ret.), Air Products and Chemicals Inc.

Colin D. Jove, PhD, ’02 EE: Engineer, U.S. Naval Research Laboratory; Recipient, Presidential Early Career Award for Scientists and Engineers

Michael T. McCullough, PE, ’76 CE: Vice President (Ret.), Environmental Design and Engineering, Walt Disney Imagineering

Anne Mullins ’87 MSEE: Chief Information Officer, Corporate Vice President, Lockheed Martin Corporation

Adelene Q. Perkins ’81 ChE: President and Chief Executive Officer, Infinity Pharmaceuticals Inc.

Glenn Reitmeier ’77 EE: Senior Vice President, Technology Standards and Policy, NBC Universal

Anne Roby ’86 ChE: Senior Vice President, Praxair Inc.

Robert Slegelmilch ’84 ECE: Vice President Engineering and Technology (Ret.), Information Systems and Global Solutions, Lockheed Martin Corporation

Rory D. Sparrow ’80 EE: former NBA player; Vice President, Player Development, NBA

Susan M. Ward ’80 ChE: Vice President and Chief Financial Officer, Shell Midstream Partners GP LLC