Engineering

USC Viterbi: innovative, elite, world-leading.

+

You

Engineers and scientists from around the world.

=

DEN@Viterbi

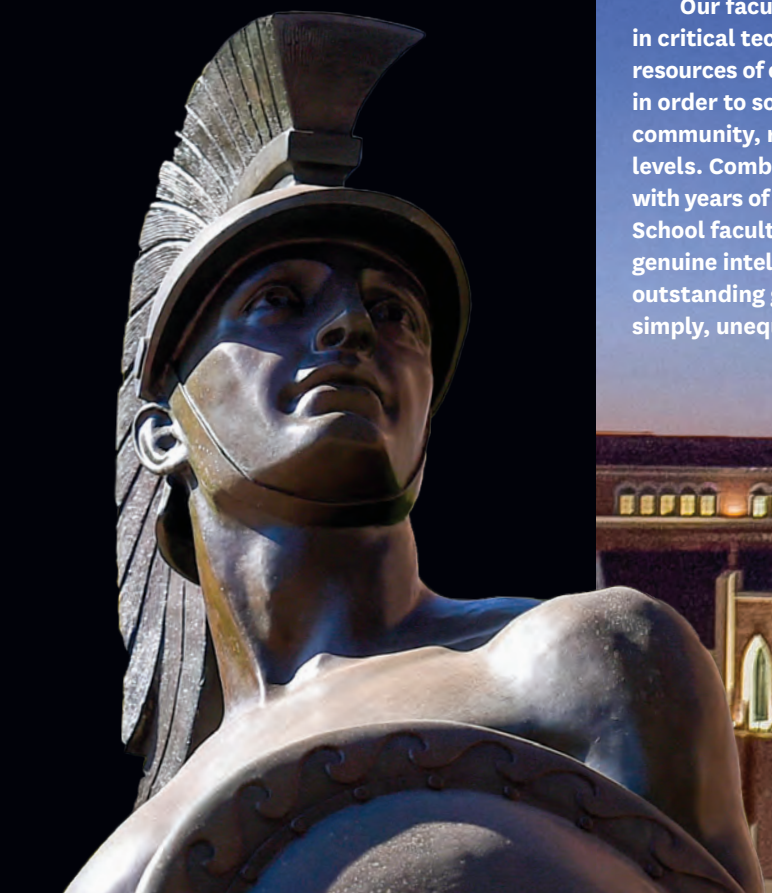
Same faculty.
Same program.
Same degree.

Access from anywhere, anytime.

USC Viterbi
School of Engineering

A BOUNDLESS PURSUIT OF KNOWLEDGE

The University of Southern California (USC) is among the world's leading private research universities. Located in Los Angeles, a global center for the arts, technology, and international trade, USC enjoys one of America's most diverse student populations, with students throughout the United States and over 100 countries worldwide. From the start, USC has built a strong tradition of integrating liberal and professional education. Every day, our students learn amid a vibrant culture of public service and are encouraged to cross academic as well as geographic boundaries in their pursuit of world-changing possibilities.



100 Years of Firsts

The USC Viterbi School of Engineering is a groundbreaking professional school in one of the world's leading private research universities, consistently ranked among the top graduate engineering programs in the United States by *U.S. News & World Report*. As the first professional school on the USC campus, the Viterbi School celebrated over 100 years of firsts since its founding in 1905. The Viterbi School also pioneered distance-based learning as one of the first graduate schools to offer an engineering degree online.

Our faculty members pursue research in critical technologies, supported by the resources of our engineering research centers in order to solve real-world problems at the community, regional, national, and global levels. Combining distinguished scholarship with years of industry experience, the Viterbi School faculty's commitment to fostering genuine intellectual partnerships with our outstanding graduate students is, quite simply, unequaled.

Welcome to Viterbi

There has never been a better and more exciting time to pursue an advanced degree in engineering.

Technology increases exponentially fast. It is at the core of every endeavor, every business, and every innovation today. Many of our critical problems can only be addressed and solved by the methodologies, techniques, and mindset of engineering. The Viterbi School, with its empowering philosophy of Engineering+, provides an engineering education that is current, dynamic, and adaptive. It will help its students, whether on-campus or off-campus, with a curriculum designed to advance their knowledge, career, and value to employers.

Being a USC Viterbi student in our graduate programs does not require you to be on campus. Our distance education program (DEN@Viterbi) has been a pioneer of access to the classroom from anywhere and anytime since 1972 — and has set the standards for distance education excellence. Thousands of professional engineers across the country, and across the globe, have earned master's degrees utilizing the unparalleled resources of DEN@Viterbi, which uses cutting-edge technology to deliver dynamic teaching and interactive coursework to our students, wherever they call home.

With more than 40 graduate engineering options available in a wide range of disciplines, DEN@Viterbi has consistently earned top-ranking acclaim from the *U.S. News & World Report*. We continually respond to technology changes by adding new programs in niche areas — with identical programs on-campus and online, both in terms of curriculum and faculty.

As a student at the Viterbi School, you will be in good company. We count among our community the most talented, ambitious and diverse students and faculty in the world. They learn and work at the highest levels of technical expertise and across traditional boundaries — between disciplines, between academia, industry and government, and between nations around the globe. Together, this makes the Viterbi School a force for change in the world: nourishing the collective curiosity with rock-solid academic rigor.

I recommend you explore this brochure to learn more about what makes DEN@Viterbi the ideal solution for your academic and professional endeavors. In addition, I encourage you to participate in an information session, visit our website, or contact us directly so you can obtain the full scope of what the Viterbi School has to offer you.

Fight On!

Yannis C. Yortsos

Dean, USC Viterbi School of Engineering

Andrew Viterbi

THE VITERBI SPIRIT

"No name could more appropriately capture the ingenuity and innovation that permeates this school. Andrew Viterbi is one of our own: a USC Ph.D., a USC Trustee, a member of the Board of Councilors, a pioneer in the global spread of wireless communications and a visionary engineer and entrepreneur who gave birth to the cellular technology that connects hundreds of millions of people.

Try to imagine a world without Andrew's inventions, and you'd have to travel back in time 30 years — before cell phones, direct broadcast satellite TV, deep space weather forecasting and video transmissions from the surface of Mars.

Andrew and his gracious wife, Erna, have assured the future of the school with far more than the growth of our endowment. The innovative Viterbi spirit will inspire a new generation of engineers and catapult the Andrew and Erna Viterbi School of Engineering into the uppermost echelon of engineering schools."

—C.L. Max Nikias,
President Emeritus, University of Southern California
Excerpt from Dean's Message - March 1, 2004

DEN@Viterbi

PIONEERING AND PERFECTING ONLINE LEARNING

Established in 1972, the USC Viterbi School of Engineering's online delivery method, DEN@Viterbi, is a pioneer in distance learning, delivering graduate degree programs and professional training opportunities using innovative web-based technologies. DEN@Viterbi is consistently ranked a top online graduate engineering program and a top online graduate information technology (computer science) program by *U.S. News & World Report*.

The Viterbi School offers over 40 master's degrees and graduate certificates completely online, ranging from broad disciplines to niche programs. We offer master's degrees in areas such as Financial Engineering, Sustainable Infrastructure Systems (multiple degree programs), Cyber Security Engineering, and Computer Science (Scientists & Engineers and Data Science). Because our online students are subject to the same rigorous academic criteria, curriculum, and standards as their on-campus counterparts, the degree earned is also identical.

USC Viterbi's Executive Education programs provide individuals and organizations with direct access to the world-class education offered by USC Viterbi faculty members and industry experts. Executive and continuing education offerings include non-degree open enrollment short courses and custom courses tailored to the particular needs of an organization.

Executive Education participants can take advantage of the flexibility offered by the Viterbi School, taking courses on USC's campus, completely online through DEN@Viterbi, or using a hybrid model of both in-person and virtual participation (when available). On-site programs are also available for organizations seeking to train their workforce at their own facilities.

5 Top Reasons

A SMARTER CHOICE

DEN@Viterbi is the smart choice for achieving your educational goals.

1 Choice and Flexibility

DEN@Viterbi students can enjoy the convenience of taking classes from their home or office. With the flexibility of viewing lectures live, on demand, or by download, students can advance their education while managing career, family and other commitments. If you receive tuition assistance from your employer, the Viterbi School provides a number of options for efficient tuition payment.

2 Among the World's Best

USC Viterbi is consistently ranked among the nation's top graduate engineering programs and top online graduate engineering programs by *U.S. News & World Report*.

3 New Content Every Semester

Our world-class faculty delivers fresh lectures for each class, rather than canned, recycled content, allowing for timely, immersive learning of the most current innovations.

4 Same Program, Same Degree

DEN@Viterbi students adhere to the same academic requirements as on-campus students, therefore, they earn the same exact diploma whether they pursue their degree on campus or online.

5 Breadth of Programs

40+ graduate programs are offered entirely online via DEN@Viterbi – developed from core research strengths and among the most offerings of any online engineering program in the country.

HOW IT WORKS

LECTURES

DEN@Viterbi employs a state-of-the-art, proprietary web-based delivery system that empowers students from around the world to access classes live, on demand, or by download. DEN@Viterbi students view the same lectures as on-campus students, with fresh content every semester. Although on-campus attendance is not required, students can also choose to come to campus to attend courses and interact with other classmates through DEN@Viterbi's unique blended delivery system.

INTERACTIVITY

DEN@Viterbi's live instruction is highly interactive—students can communicate with professors and fellow classmates via telephone, live chat, virtual meetings, and threaded discussions. You'll have access to a wide variety of web-based tools for communicating with professors and peers during, and outside of, class hours.

HOMEWORK AND NOTES

DEN@Viterbi homework is submitted electronically and students follow the same deadlines as on-campus students. You can also print out lecture notes prior to viewing the archived course.

EXAMS

DEN@Viterbi student exams are proctored at testing centers near your home or work during the same time frame as on-campus examinations. Students located in Los Angeles, Orange, and Ventura counties take their exams on the USC campus.

EDUCATING TODAY'S ENGINEERING PROFESSIONALS

DEN@Viterbi students have pursued their degree while employed in a variety of industries

- Aerojet Rocketdyne
- Amazon
- Amgen
- Apple
- BAE Systems
- Boeing
- Boston Scientific
- Chevron Corporation
- Cisco Systems, Inc.
- Devon Energy
- General Dynamics
- General Electric
- General Motors
- Google
- Honeywell
- Intel Corporation
- Jet Propulsion Laboratory
- Korean Air
- Kuwait Oil Company
- Lockheed Martin Corporation
- Los Angeles Department of Water and Power
- Medtronic
- Microsoft
- NASA
- Northrop Grumman
- Occidental Petroleum
- Oracle
- Pacific Gas & Electric
- Qualcomm
- Raytheon Technologies
- SAIC
- Saudi Aramco
- Schlumberger
- Southern California Edison
- SpaceX
- The Aerospace Corporation
- United States Armed Forces
- Walt Disney Imagineering

This is a partial representation of DEN@Viterbi student employers.

Ready to apply?

Admitted students are those who have formally applied for admission and have been accepted to a master's degree or graduate certificate program.

APPLYING FOR ADMISSION

Submit the USC Graduate Application, copies of official transcripts, and GRE test scores to the USC Office of Graduate Admission. As each engineering department has varying requirements for admission, please be sure to consult the website at viterbi.usc.edu/gradadmission for specific information.

The USC Graduate Application is available at gradadm.usc.edu/apply.

LIMITED STATUS ENROLLMENT

Qualified candidates may begin taking classes as a Limited Status student before being formally admitted to a degree program. To be eligible for Limited Status enrollment, you must have a Bachelor of Science degree in engineering or a closely related field (such as mathematics or science) from a regionally-accredited institution with a cumulative GPA of 3.0 or higher (on a 4.0 scale). You must also have the necessary background for the USC courses you wish to take. In addition, please note the following:

- **Grades earned as a Limited Status student will be considered if you later apply for admission. However, Limited Status enrollment is not a guarantee of admission.**
- **A maximum of 12 units may be taken as a Limited Status student.**
- **Limited Status students are required to pay full tuition.**
- **Individuals who were previously denied admission to a USC engineering graduate degree program are not eligible to take courses as Limited Status students.**

More information on Limited Status Enrollment can be found at viterbi.usc.edu/limitedstatus.

To get started as a Limited Status student, create and submit a DEN@Viterbi Profile by visiting viterbi.usc.edu/DENProfile. Please allow 3–5 business days for approval of your profile and for further instructions.

DON'T TAKE OUR WORD FOR IT...

IVY YANG

MS Engineering Management, 2018
Genentech

I believe that DEN@Viterbi students have the opportunity to get the same quality of education as an on-campus student, if not more. The DEN@Viterbi program allowed me to jump-start my career and I think taking classes while gaining work experience without a location constraint was the best use of my time.

SAMUEL ASPIRANTI

MS Cyber Security Engineering, 2019
United States Air Force

The flexibility to participate in lectures when I was available, or watch recorded sessions at a later time, was a phenomenal experience. With the demands of the military and frequent moving, I thought I would never be able to complete a program at USC but DEN@Viterbi far exceeded my expectations and enabled me to complete a master's degree while on active duty.

JOHN MICHAEL FERRER

MS Product Development Engineering, 2019
Ford Motor Company

Every class I took as a DEN@Viterbi student gave me experiences that I've been able to immediately apply on the job. The professors' industry and educational experiences enable them to put lessons into digestible terms for working professionals in which they were very thorough, accommodating, and understanding. The price – time, effort, and money – is worth it in every respect as I try to become a leader worthy of USC.

LACEY JONES

MS Systems Architecting & Engineering, 2017
Boeing

My DEN@Viterbi experience was one of great learning, flexibility, and gratitude for the professors and staff. I enjoyed the group projects and learning from the students in class and around the globe. I brought my Boeing engineering knowledge to the groups I was part of and helped to present our findings in person at USC. It was easy to attend class live online and also view the material later via the recordings.

Viterbi Disciplines

Aerospace & Mechanical Engineering advances basic and applied sciences in aeronautics, mechanics, dynamics, and controls of modern, automated and/or autonomous systems. Applications and opportunities are diverse, from human biology, to the design and control of small and large flying devices.

Astronautical Engineering is a nationally-recognized degree program that emphasizes space technology and applications, spacecraft design and space missions, space exploration, space science and space environment, space sensors and instrumentation, and advanced propulsion.

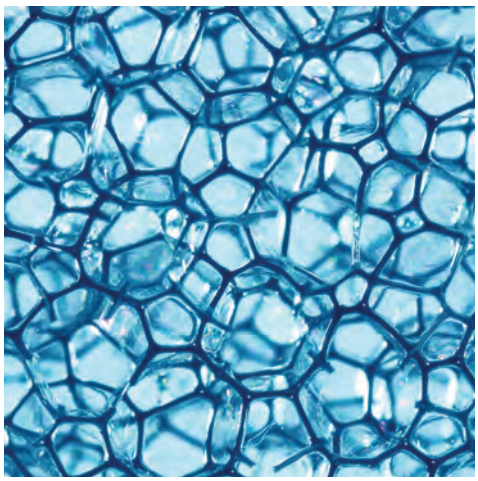
Biomedical Engineering offers leading programs in such areas as neuro-engineering, biosystems and biosignal analysis, medical devices and implants, bioimaging and imaging informatics, and systems cellular-molecular bioengineering. Viterbi's Biomedical Engineering programs prepare students for diverse careers at the interface between engineering, biology, and medicine.

Chemical Engineering, Materials Science & Petroleum Engineering subject areas include biological surfaces and interfaces, nanostructure device synthesis, polymer composite manufacturing, large-scale computer simulations, membrane separations, reactor design, and oil and gas exploration.

Civil & Environmental Engineering programs allow students to specialize in one of a broad range of focuses including Construction, Environmental, Geotechnical, Structural, Transportation and Water Resources Engineering, as well as Construction Management.

Computer Science provides students with both hardware and software knowledge; the department is an international research leader in new media and internet technologies, software engineering, artificial intelligence, robotics, networking and computer architecture, data science, and game design and development.

Electrical & Computer Engineering is known for research in circuits, devices and systems; communications; computer architecture and networks; control systems; electromagnetics; micro and nanotechnologies; photonics; plasma and power; quantum information processing; signal processing; and VLSI and CAD.



Energy & Sustainability covers interdisciplinary programs in Green Technologies, smartsystem design for sustainable infrastructures, the societal context of infrastructure engineering decisions, and energy conversion.

Industrial & Systems Engineering, including Engineering Management, is a world leader in education, research and innovation through the creation, expansion and communication of knowledge for the design, operation, integration, and improvement of products, processes, and socio-technical systems.

Informatics, including Cyber Security Engineering and Applied Data Science, focuses on how information can be applied to solve real-world problems in academia, industry, and government; how experts in a multitude of disciplines can leverage computing and data science to develop such solutions; and how we can protect the required data, software, and infrastructure.

Systems Architecting & Engineering emphasizes the methodologies, processes, and tools by which complex systems are conceived, planned, designed, built, tested and certified. The knowledge and experience gained from lectures and hands-on problem solving can be applied to defense, aerospace, energy, healthcare, transportation, and several other sectors.

DEN@Viterbi

Access from anywhere, anytime.

USC Viterbi School of Engineering

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Corporate & Professional Programs

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