# 2025 STRATEGIC PLAN



Engineering lives for the better.

#### WITH A SOLID FOUNDATION, IT'S INCREDIBLE WHAT WE CAN BUILD.

After 50 years of pursuing excellence in engineering, we can afford to pause—but just for a moment—to reflect on our triumphs and struggles. For our community partners, students, and faculty, the College of Engineering has been a beacon of education, opening doors of opportunity and revealing infinite possibilities for a better world. I am proud of our achievements. However, the fields of engineering and education are everevolving—and there is still much more to accomplish.

As a college, we can best be described as young in spirit. The advantages are evident in our optimism, confidence, and innate drive to aim higher than others think possible. Our tools and technology contribute to space exploration. Create fuel from landfill gases. Save lives in hospitals and operating rooms. Provide safer roads and effective transportation systems. Purify water and deliver it to those in need. Enhance domestic security. Yet, we are capable of even larger feats. So, each day, we work harder—relentlessly and creatively shaping our understanding of mathematics and science for the greater good. And proving again and again that we, as engineers and students, have the will and power to directly and positively impact the world around us.

The success of our students, research, and multidisciplinary solutions is a reflection of both the quality of education we offer and the rate by which we balance change with adherence to our foundational ideals. Through educational leadership, impactful discovery, experiential learning, and community partnerships, our plans for the future—for a new facility—are within reach. A facility that allows intellectual collaborations and collisions to take root and thrive. And that enables the College of Engineering to not only grow in size and strength, but to push the realm of what's possible in engineering and education.

Robert H. Bistop

Robert H. Bishop, Ph.D., P.E. Dean, USF College of Engineering

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If we all worked on the assumption that what is accepted as true is really true, there would be little hope of advance.

ORVILLE WRIGHT

Engineer | Pioneer of Aviation

# EXPERIENTIAL LEARNING

#### **TEXTBOOKS ARE A TOOL—NOT AN EDUCATION.**

Engineering cannot be learned from the pages of a textbook. That's why, with an emphasis on capstone projects, internships, technology, and highly specialized labs, our goal is for all students to grow through experience researching real-world situations and building innovative solutions for the greater good. By graduation, students will have accomplished far more than becoming engineers: They'll be poised to lead the industry.

#### **OUTLOOK FOR EXPERIENTIAL LEARNING**

- · Create a shared faculty-student space for collaborative research advancement
- Advance instructional effectiveness through thoughtful improvements to facilities, active learning, and training
- Foster a global approach to engineering by capitalizing on the international perspectives and diversity of students and faculty
- Integrate multidisciplinary research activities to cultivate and reflect students' broad interests

#### **BLUEPRINT FOR SUCCESS**

- Improve and update classrooms, labs, and instructional technology
- Further integrate arts and social sciences, ethics and leadership development, and entrepreneurship into curriculum
- Encourage dialogue between Career Services and students
- Synergize self-paced project learning with faculty research
- Expand service learning course selections
- Ensure experiential learning experiences
- Sync with the USF Global Citizens Project to deepen international perspectives

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At a research university, excellence in teaching and learning is vital to the needs and future success of a student.

#### AUTAR KAW

Engineer | University of South Florida Professor, 2012 United States Professor of the Year

# IMPACTFUL DISCOVERY

#### THE WORTH OF OUR WORK IS MEASURED BY ITS VALUE TO OTHERS.

Engineering is often viewed as a means to an end. An idea is generated. A process is followed. And, finally, a product is produced for monetary gain. This oversimplification, however, does little justice to a profession with a robust history of innovation and human service. Just like it is our job to teach cutting-edge design and facilitate research, it's our responsibility to shape new perspectives. In doing so, we'll develop a generation of engineers who see the true value of discovery: its limitless ability to change lives.

#### **OUTLOOK FOR IMPACTFUL DISCOVERY**

- Provide significant guidance and financial support for research and discovery
- Promote the influential nature of our achievements through effective partnerships and platforms
- Recruit and retain the nation's most promising graduate students and post-doctoral fellows
- Boost local and global awareness of our research in order to support technological advances

#### **BLUEPRINT FOR SUCCESS**

- Enrich faculty inquiry through core research facilities
- · Cultivate a diverse, competitively sized faculty
- · Construct space to grow our research enterprise
- Establish endowed named faculty positions
- Develop an endowed graduate student fellowship program
- Launch key Centers of Excellence
- Enhance marketing and communications for global outreach

We strive to reach our full potential as researchers and engineers, turning ideas into technologies that make an imprint on the world.

#### DANIEL YEH

Engineer | University of South Florida Associate Professor, Bill and Melinda Gates Foundation Grand Challenges Exploration Award Recipient

# COMMUNITY PARTNERSHIP

#### TOGETHER, WE CAN DO GREAT THINGS.

One look around reveals the countless ways engineering has shaped the world as we know it. But it's not just engineers who are responsible for progress. Because discoveries stem from the needs of a population, our jobs are inextricably linked to the citizens we serve. To bring diverse partnerships and service to the forefront of students' educations, we will strengthen our ties with both local and global communities. By engineering a solid support system, we'll increase opportunities for mentorships, internships, and careers, and we'll be able to provide much-needed solutions to communities that are close to heart and home.

#### **OUTLOOK FOR COMMUNITY PARTNERSHIPS**

- Expand community affiliations and outreach
- Grow existing partnerships with government agencies, both in Florida and nationally
- Raise awareness about our achievements
- Offer meaningful engagement opportunities for alumni and friends of the college

#### **BLUEPRINT FOR SUCCESS**

- · Emphasize entrepreneurship and entrepreneurial opportunities
- Become a key driver in local economic development activities
- Create effective industry partnerships through an industry relations manager
- Significantly increase I-4 corridor grant collaboration
- Increase community-based research awards
- Boost alumni and donor involvement with a wide range of programs and events
- Establish a K-12 engineering outreach program





What's happening in the world is ever-present in both our teaching and learning. Through close ties with our community, we are able to innovate solutions and create a wealth of opportunities for students.

#### JIM MIHELCIC

Engineer | University of South Florida Professor, State of Florida 21st Century World Class Scholar

# EDUCATIONAL LEADERSHIP

#### OUR JOB IS TO CHANGE THE STATUS QUO.

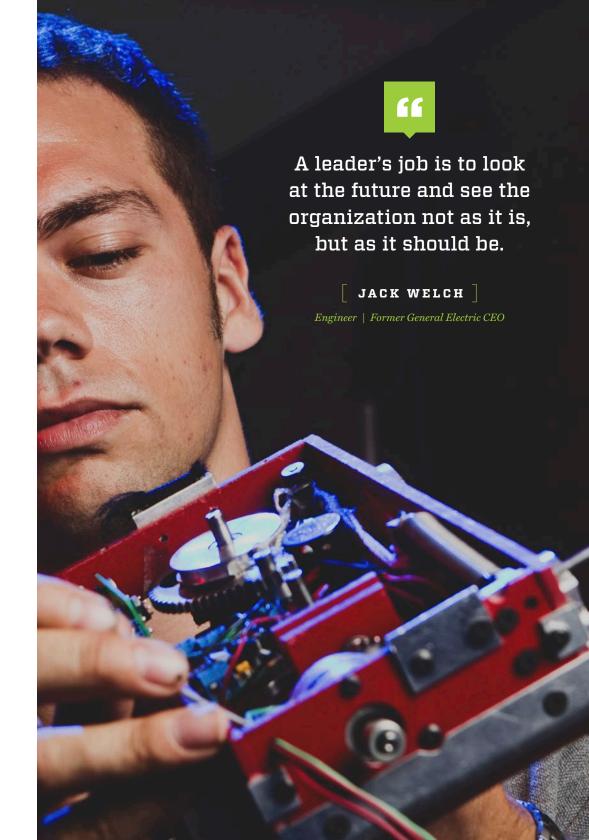
To an engineer, solutions are never complete—there's always room to improve. The job of a leader is no different. Even with 5,500 students, 200 patents, and 23 faculty members who have received the prestigious NSF CAREER award, we must still be agents of change. It's time to push our vision onward and upward, creating an even greater era for the College of Engineering—one that is truly transformational for the university, our students, and the impact of our research and discovery.

#### **OUTLOOK FOR EDUCATIONAL LEADERSHIP**

- Embody the college's mission, vision, and values, fully integrating and exhibiting these principles in all actions and decisions
- · Grow our distinguished and diverse group of faculty, students, and staff
- Ensure exceptional financial stewardship and cost-competitiveness
- Build accountable and transparent leaders who further the college's short- and long-term goals

#### **BLUEPRINT FOR SUCCESS**

- Employ business financial processes through a professional business manager
- Provide continuing education and training
- Optimize fundraising and philanthropic environments
- Increase financial backing of support services to sustain projected growth
- Evaluate and build extended student pipelines through distance learning



#### WE'RE BUILDING MORE THAN BUILDINGS.

Setting sights on a new 250,000 square-foot state-of-the-art facility is no small feat, especially considering the tremendous amount of resources and financial support needed. However, in and of itself, breaking ground on a new building is far from visionary. Doing something groundbreaking with that space? That's a different story. Our story.

As we head into the next decade and lay the framework for our fourth facility, we envision a design that encompasses shared workspace, integrated research opportunities, and cutting-edge teaching laboratories. Despite these modern features, it's not the building's physical footprint that sets it apart from others. Rather, it is how we use the space that matters: the ideals we steadfastly build upon and execute faithfully, day in and day out. Only then, through something so ordinary as a blueprint, will we achieve the extraordinary: We will engineer lives for the better.



### Scientists discover the world that exists; engineers create the world that never was.

#### THEODORE VON KÁRMÁN

Engineer | Lab at California Institute of Technology Later Became NASA Jet Propulsion Laboratory



### [ MISSION ]

To profoundly shape and impact lives through the steadfast pursuit of world-class engineering research, education, and innovation.

### VISION

We aspire to be at the forefront of engineering research and education, cultivating knowledgeable, passionate engineers who are dedicated to need-based, solutions-oriented engineering.

### [ VALUES ]

We share a culture of excellence, characterized by an emphasis on students, research, innovation, partnership, inclusivity, agility, and the future.



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