With a world population expected to reach more than 9.7 billion by 2050, we will need to make the most of precious resources. Now more than ever before, people will look to Iowa State University to help solve our most pressing challenges. The College of Engineering is uniquely poised to address issues in sustainability, energy, cyber security, advanced manufacturing, infrastructure and much more, and therefore will be a major player in helping Iowa State make a global impact.

Iowa State University has identified strategic aspirations that will propel Iowa State toward its goal of becoming the premier land-grant university. Through the Forever True, For Iowa State campaign, a historic effort to raise $1.1 billion for the university and $225 million for the college, the College of Engineering will contribute to these three goals by leveraging our greatest strength – our people – to reach new levels of discovery, learning and achievement. Together, we will remain true to the ideals at the college’s core and accelerate them into the 21st century.

– Sarah A. Rajala
Dean, College of Engineering
James L. and Katherine S. Melsa Dean of Engineering

Iowa State University College of Engineering FOREVER TRUE, FOR IOWA STATE

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ASPIRATION 1

Ensure access to an exceptional student experience that offers practical, global and leadership opportunities that shape the well-rounded citizens and informed critical thinkers needed in the 21st century.

Our world needs Iowa State students because they will become the leaders who take on future challenges and discover much-needed solutions. The College of Engineering takes the responsibility of providing a dynamic education for our students seriously – one filled with opportunities to learn from professors, peers, internship experiences and industry – and we have a commitment to excellence in everything we do. We are prepared to assist the university in shaping tomorrow’s leaders through comprehensive fundraising for engineering undergraduates. This includes supporting the programs, internships, study abroad opportunities and leadership roles that make up the student experience at Iowa State.

Leaders are created through opportunities to help address some of the world’s grand challenges. We can facilitate these types of opportunities through hands-on, relevant experiences – an Iowa State hallmark – such as working directly with international companies. In addition to learning in the classroom, our students also have opportunities to gain valuable experience by studying abroad and working in real-world internships and co-ops. Support for international programs, studying abroad and scholarships will help keep these experiences accessible for a greater number of students, and will better prepare them to tackle the engineering field in a global economy in need of Iowa State expertise.

Another factor in facilitating student success is providing students with co-curricular opportunities to expand learning and leadership skills outside of the classroom. The College of Engineering boasts more than 80 student organizations. These experiences, along with undergraduate research, upgraded classroom technology, study abroad opportunities, learning communities, internships and leading-edge curriculum are all critical in creating the well-rounded student experience expected at Iowa State.

Education doesn’t stand still. Through the construction of the Student Innovation Center, for example, the university will create a space that will foster interdisciplinary, dynamic learning and complement Iowa State’s existing industry partnerships and K-12 outreach programs. Students will be able to conceptualize, design, build and test products all at the center and collaborate across a wide range of disciplines. Support for innovative learning environments on campus will truly allow the college to push forward on the frontiers of science and engineering – everything we do, and everything our students will do in their careers, is collaborative in nature.

Funds raised during this campaign will support undergraduate students, their research, their educational communities and their classroom experience – both on campus and abroad. Several naming opportunities will also be available in the Student Innovation Center. Support for students today not only provides for their education but empowers the change they make in the world.
ASPIRATION 2
Advance Iowa State as a world leader in addressing global challenges affecting our food, water, energy, health, security and environment

At Iowa State, we’re already forging new paths toward solving the world’s most daunting problems. We’re harnessing renewable energy sources and producing smarter manufacturing technologies. In order to continue this trajectory and prepare to achieve this university goal, we will play our part. The College of Engineering is ready to contribute to the university’s commitment to solve the world’s most challenging problems by investing in our people – the students, staff, faculty and researchers who put in the work to reach new discoveries.

Our research programs in the fields of engineered medicine, sustainable infrastructures, secure cyberspace, energy systems and advanced material continues to grow in scope and reputation. New breakthroughs are made each year, leading to patents that reflect new ideas and discoveries that address global issues, lead to startup companies and generate economic development – goals that are central to Iowa State’s land-grant mission. Additional funding for new research initiatives, leading-edge research equipment and research will allow the college to reach new levels of understanding and continue its momentum.

Endowed faculty positions help attract and support outstanding leaders – leaders who make breakthroughs and recruit the best graduate students. Named faculty positions provide greater resources for each recipient, providing more flexibility to pursue innovative research and enhance the classroom experience. Graduate student support is also critical. Graduate students strengthen our programs, and continue on to become the next generation of leaders in academia and industry, elevating the reputation of the college and expanding our reach. While here, these students also play an important role in helping faculty deliver high-quality education and perform innovative research. Together, we can cultivate a dynamic group of teachers, researchers and learners who will move the work of the university forward.

Given the growth in enrollment the college has experienced – nearly 30 percent in five years – infrastructure is critically important. Our facilities must continue to expand to meet the growth in our faculty, students and research needs. Updating teaching and research space to meet the needs of today’s classroom will play an integral role in ensuring the college can recruit and retain the very best.

People in the College of Engineering have always been our greatest resource. Investing in them now will empower our greatest minds to effectively contribute to global change. Through the Forever True, For Iowa State campaign, the college seeks to create endowed funds to name the three remaining department chair positions, create more faculty chairs, professorships and fellowships, and update existing teaching and research space. We also plan to increase the number of graduate students through scholarship support and first-year research funding.
Since the very beginning, Iowa State has been committed to sharing its knowledge throughout the state of Iowa. This practice better our communities and fosters a culture of putting discoveries to work. The College of Engineering is poised to join the university in taking this mission to the next level by growing our economies, sharing our expertise and fostering entrepreneurship.

The college is already working with Iowa businesses and communities to help grow the local economy. Resources include outreach services, continuing education for practicing engineers, assistance for faculty starting companies and technology transfer programs. The Center for Industrial Research and Service, for example, utilizes research-based methods to assist local business. Clients who have worked with the center report an economic impact of more than $2 billion over the past five years.

The Center for Biorenewable Chemicals, established in partnership with the college, offers an entrepreneurship course and entrepreneurship mentoring to include both students and industry in creating a culture of innovation. In the course, students build an understanding of what it takes to develop a technology-led idea into a business or project proposition. Additionally, 10 startup entities have emerged from the center.

Through our outreach efforts, students encounter engineering principles far before enrolling at Iowa State. Programs in the college include FIRST LEGO League and Iowa State Engineering Kids – both of which encourage children to get excited about science, technology and engineering. Outreach efforts don’t stop once students graduate high school, however. The Academic Program for Excellence for Engineers is an intensive eight-week summer bridge program designed to increase the success rate of incoming multicultural, first-year engineering students. Participants attend learning workshops led by engineering faculty, engage in industry visits, enroll in foundational courses, and participate in networking opportunities.

By supporting the College of Engineering’s outreach programs, there is great potential to impact the students, faculty and staff who are directly affiliated with our college but also all those who benefit from stronger communities, thriving businesses and effective solutions. Giving toward strategic initiatives include enhancing entrepreneurial activities within the college and expanding our statewide outreach efforts. Support in these areas is essential to carrying out the core mission of Iowa State as a whole, and also for translating it to best serve the 21st century.
Be Forever True

Now is the time for Iowa State University to fulfill its role in a world facing hunger, disease, resource depletion and an increasing population – a role it cannot fill without the unique expertise and environment cultivated in the College of Engineering. Now is the time to do what we have always done – work together, share our resources and knowledge, and provide an applicable education – but at a greater level than ever before. Now is the time to push the boundaries of what we can achieve together.

The Forever True, For Iowa State campaign is unlike any other in the university’s history. We ask you to contribute toward the college’s goal to raise $225 million. You have the opportunity to step up and shape the leaders of tomorrow, leaders who will play a critical role in the years to come. This is your time to be Forever True.