In 2012, the President’s Council on Jobs and Competitiveness recognized the efforts of engineering deans to enhance the retention and graduation of engineering students, by making its own commitment to increase the number of engineering graduates over the next 10 years. To this end, engineering faculty have conducted pilot studies that have shown a combination of factors contribute to variability in student retention. According to these studies, one of the primary reasons for the attrition of students from engineering is the perception that the learning environment fails to motivate them. Hence, these studies assert that many engineering programs can improve student retention by adopting best practices and strategies for retaining students.

As part of a larger study of student retention, the American Society of Engineering Education (ASEE) conducted a review of literature and documented more than 60 successful strategies that had been identified as effective in retaining students in engineering. Practices cited by engineering programs spanned the full range of retention strategies found in the literature. Most engineering programs took a “holistic” approach to improving retention; rather than focusing on one approach, they pursued multiple strategies. The most successful strategies and practices focused on tutoring, mentoring, learning centers, first-year instruction, academic advising and career awareness.

Ivor “Ike” Evans graduated with a Bachelor of Science degree in electrical engineering in 1965 and attended Harvard University’s program for management development. At K-State, he was a Mike Ahearn baseball scholar athlete. Ike met his wife, Letty, while a student at K-State. Letty Evans was born and raised in Topeka, Kansas. Letty attended Kansas State and was a member of Pi Beta Phi sorority. She devoted her time to raising her children, being a volunteer to many charitable organizations and owning a business. Ike and Letty have been married for 55 years. They have two sons, three granddaughters and two great-granddaughters. They are avid supporters of K-State, the College of Engineering and the Academic Success Center — in particular the latter’s mentoring of women and its focus on diversity.

Ike retired as president and CEO of Union Pacific Railroad, one of America’s leading transportation companies and North America’s premier railroad franchise covering 23 states across the Western two-thirds of the United States. He was also chairman and CEO of Meritor, a leading global supplier of drivetrain, mobility, braking and aftermarket solutions for commercial vehicle and industrial markets. Ike is currently a director at Meritor, and a past director at Textron, Spirit AeroSystems, Roadrunner Transportation Systems and Cooper Industries. He began his career with the Chevrolet Motor Division of General Motors Corporation and spent 21 years in positions of increasing responsibility. He went on to become a senior vice president of industrial components at Emerson, a multinational company that manufactures products and provides services for a wide variety of industrial, commercial and consumer markets. Ike was also an operating partner for HCI Equity Partners, a private equity firm that invests in growth-oriented industrial, transportation and services companies.

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IKE AND LETTY EVANS

“Ike and I view this center as a highly visible way for the college to show how very much it cares about its students. The message, through a variety of initiatives, is this: ‘We want our students to be successful.’ The center helps students as they transition from enrollment to graduation. This gift is our way of saying thank you for the support we received during our time at this great university.”

THE MOTIVATION
VISION
The Ike and Letty Evans Academic Success Center, or ASC, catalyzes experiences in support of student success by creating novel programs to meet the needs of engineering students as they transition from initial enrollment to graduation. The ASC partners with students to address their individual needs and unique goals, utilizing a student-centered approach with an emphasis on academic achievement. This approach focuses on innovative learning-centered environments, where students engage in academic and co-curricular activities.

MISSION
Utilizing a student-centered approach, the Ike and Letty Evans Academic Success Center, or ASC, supports engineering students by helping them overcome personal challenges while developing their unique strengths. The ASC fulfills this mission through tutoring, mentoring, learning centers, first-year instruction, academic advising and career awareness, so each student can reach his or her potential as a productive member of society.

THE ASC – AT A GLANCE
The College of Engineering Ike and Letty Evans Academic Success Center, or ASC, is lighting the way for student success now and in the future. For many first-year students, managing schedules, finances and academics can be overwhelming; hence, the primary goal of the ASC is to give students an individualized option with mentors, advisers and training that will empower them to have a successful experience throughout college and beyond.

ASC staff provide academic advising for first-year and returning students to strengthen and improve upon their progress. They also give engineering students one-stop access to peer-to-peer tutoring, alumni mentoring, first-year instruction and diversity support programs, all designed to promote student success. These initiatives have been developed to welcome, empower and encourage students to reach their full potential. By providing a sense of belonging, ASC staff help students navigate the pressures of college life and earn their degree.

With group study stations, computer workstations, conference rooms, team-building areas and multimedia flex rooms, the associated facilities have been developed to continually reinforce the discipline of working in a team setting. This teamwork modality helps ensure students are fully prepared to join the rapidly changing workforce after graduation.

The ASC also offers workshops on topics such as study skills, time management, engineering careers and internships. The center’s Collaborative Learning Laboratory serves as home to the innovative Scholars Assisting Scholars program, which hires upper-level students to tutor their peers, while also developing their own teaching and leadership skills.

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Scholars Assisting Scholars, or SAS, is a free walk-in tutoring service employing upper-level students in math, science and engineering to provide tutoring in calculus, chemistry, economics, physics, programming and engineering science courses. SAS is available to all university students in these courses. Tutoring takes place in the new Collaborative Learning Laboratory. Tutors are assigned to a specific course each semester and work with course professors to provide the following appropriate supplemental instruction for students:

- Providing assistance consistent with course instruction
- Leading review sessions before each exam
- Providing academic coaching
- Facilitating learning groups

Some freshmen pursuing an engineering degree are unsure about which degree program will best fit their interests, skills and career goals. In order to fully engage these highly capable and interested students, the ASC offers the General Engineering Program. Students receive detailed exposure to different career possibilities across the 11 different degree programs offered in the College of Engineering through its Engineering Orientation course, DEN 160. Students also participate in the Engineering Problem Solving course, DEN 161, which provides a research-based learning environment that helps them achieve academic success by offering the following:

- Fundamental skills and engagement in real-world problem solving
- An introduction to the ability to effectively communicate design and analysis decisions
- Positive reinforcement and targeted feedback on problem-solving skills critical for success in engineering courses
- Experience working in collaborative student team environments
- Exploration of a variety of technical content as a preview of different degree programs
- Peer mentoring to learn techniques from other students who have been there before
- A firm basis to confidently select an engineering discipline that aligns with interests, skill sets and career goals

After completing the First-Year Engineering Program, students can easily transition into the College of Engineering degree program of their choice and stay on track with their peers. The First-Year Engineering Program provides students with a perspective of the various types of engineering problems and career paths, and develops a strong foundation for their personal and professional development.
The general engineering academic advising program provides support, connection and resources to students in the general engineering program, assisting their selection of a degree program to accomplish their academic and career goals. General engineering advisers use developmental advising to support student persistence and academic success. Advisers meet with students individually to create connections and determine individual needs while guiding students in developing the skills needed to be successful in engineering, finding appropriate resources and selecting a degree program. They provide information about engineering careers and programs of study in the college that can lead to those careers. General engineering advisers work with students to develop networking, interaction and collaboration connections with other engineering students. The advising program includes seminars and instruction to help students establish effective study skills, and time management and problem-solving practices. Advisers also direct learning communities, both residential and non-residential, for general engineering students.

The College of Engineering Alumni Mentor Program aims at connecting current engineering students with alumni. Students are matched with a mentor based on background, experience and interest. The nine-month — September to May — program is designed specifically for engineering students with sophomore standing or above.

The Alumni Mentor Program provides students with the opportunity to learn from highly successful and experienced professionals in their field of study. Mentors can help mentees in the following ways:

- Share technical expertise
- Discuss industry trends
- Introduce students to colleagues to help build professional networks
- Provide knowledge and understanding
- Facilitate career development through professional guidance and advice
- Give advice on professional communication, dress and demeanor
The Multicultural Engineering Program, or MEP, is focused on increasing the pool of interested and qualified students from historically under-represented groups pursuing engineering degrees, while also providing a foundational support system. Programs providing support and engagement for multicultural students include the following:

- MEP Kompass summer bridge program, a free three-day intensive bridge program designed to accelerate academic success for incoming freshmen
- Multicultural Academic Program Success, or MAPS, a six-week summer bridge program providing opportunities to network with peers and faculty while also acclimating to the K-State campus
- Student organizations, including American Indian Science and Engineering Society, National Society of Black Engineers, and Society of Hispanic Professional Engineers

The Women in Engineering, or WiE, program provides opportunities for women in engineering to connect, share and support each other during their time at K-State. WiE mentors and leaders create and plan events and activities that provide social engagement, professional development and academic support for women in the college through —

- Engineering Women Mentoring Women program
- Seminars and workshops
- Social activities

Professional societies including the Society of Women Engineers, or SWE, and Women in Chemical, Civil, Computer Science, Electrical and Mechanical Engineering organizations

- Engineering organizations
- Women in Engineering Laboratory Experience, or WiELE, program

"Diversity in the engineering world has brought new ideas and concepts. Men and women are different, and that is a good thing."

DIVERSITY SUPPORT
A great education begins with great educators — inspirational teachers and mentors who want to make a difference in the lives of K-State engineering students and in the larger world. Decades after graduation, alumni still remember the dedicated professors who helped them to understand a difficult subject, mentored them as part of a student design team experience, or helped them to find a path to personal and professional success. Those life-changing conversations continue to take place at the College of Engineering every day as faculty members share their passion for engineering, and their commitment for teaching and mentoring students. Specifically, College of Engineering faculty are leading the way in addressing urgent national and global issues — from homeland security to sustainable energy — and the aspiration to be a “Top 50 Public University” depends upon these achievements. These faculty members also bring extraordinary insight and enthusiasm to the classroom while mentoring undergraduates in new discovery-based learning projects.

Cornerstone Teaching Scholars Program

The Cornerstone Teaching Scholars Program fosters exemplary undergraduate teaching skills and commitment for excellence in fundamental engineering courses. Specifically, the program encourages the college’s best teaching faculty members to teach its most fundamental courses in the sophomore and junior years to improve student retention and graduation rates and ensure students obtain the best possible learning experience.

Based on a previous record of outstanding teaching accomplishments, faculty members are nominated by their department head for teaching scholar positions in each of the departments throughout the college. Each Cornerstone Teaching Scholar is given a three-year appointment with a salary increase, and discretionary funds to support instruction of at least two fundamental engineering courses each year. Courses are closely reviewed to achieve academic excellence and high student interest.

Creative Inquiry Mentor Program

Creative inquiry is the College of Engineering’s highly successful blend of engineering principles and practice. Faculty mentors lead teams of undergraduate students in their search for innovative solutions to problems with challenging technical, economic and social components. Each year, faculty mentor hundreds of students who join creative inquiry teams that compete in regional, national and international events on topics ranging from wind power to unmanned aircraft. Participation on creative inquiry teams gives students a competitive edge in the job market, while also supporting the college’s visionary plan and K-State’s 2025 goal to enhance the student experience.

Based on a previous record of outstanding creative inquiry mentoring accomplishments, faculty members are nominated by their department head for creative inquiry mentor positions in each of the departments throughout the college. Each creative inquiry mentor is given a three-year appointment with a salary increase, and discretionary funds to support the mentoring of a creative inquiry team or project each year. Creative inquiry accomplishments are closely reviewed to achieve academic excellence and maintain high student interest.
LIGHTING THE WAY FOR STUDENT SUCCESS
Kansas State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, ancestry, disability, genetic information, military status, or veteran status, in the university’s programs and activities as required by applicable laws and regulations. The person designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning the nondiscrimination policy is the university’s Title IX Coordinator: the Director of the Office of Institutional Equity, equity@k-state.edu, 103 Edwards Hall, 1810 Kerr Drive, Kansas State University, Manhattan, Kansas 66506-4801. Telephone: 785-532-6220 | TTY or TRS: 711. The campus ADA Coordinator is the Director of Employee Relations and Engagement, who may be reached at charlott@k-state.edu or 103 Edwards Hall, 1810 Kerr Drive, Kansas State University, Manhattan, Kansas 66506-4801, 785-532-6277 and TTY or TRS 711. Revised Aug. 29, 2017.