

ANNUAL REPORT / 2016



SCHOOL OF ENGINEERING & COMPUTER SCIENCE



BAYLOR
UNIVERSITY

Baylor's School of Engineering and Computer Science (ECS) is a remarkable place to work. As an exciting hub of cross-disciplinary research, innovation, entrepreneurship and engineering education, ECS continues to operate under the Baylor mission to integrate academic excellence and Christian commitment within a caring community.

In my fifth year as Dean, I am not only encouraged by the rising quality of education that our dedicated faculty produce year after year, but also by the caliber of young men and women that our programs graduate each year. From students that design a capstone project to meet the needs of a disabled child to faculty that receive recognition as outstanding teachers, research professionals, and industry experts, ECS is ripe with accomplishments and pride.

This past year, our faculty have contributed to expanding research into such areas as human-computer interaction, wireless technology, big data, polymers, and motion-capture technology. Our research expenditures continue to grow, with ECS reaching over \$1.75 million in annual research expenditures this year. Our research funding supports an ever expanding graduate program. This fall, we are

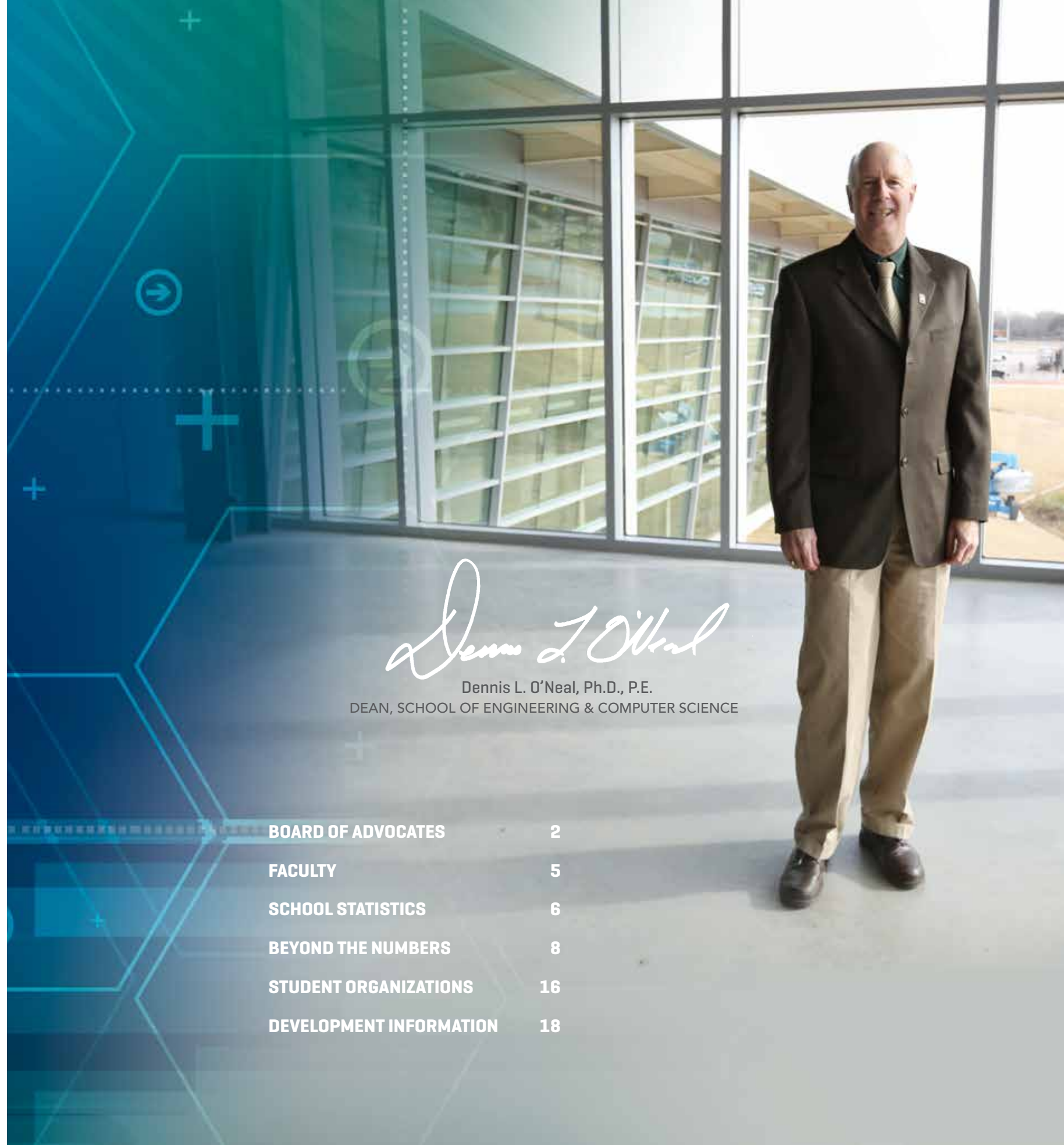
expecting to have over 30 Ph.D. students in our programs for the first time. Our faculty are helping Baylor in its goal to become a major research university.

In addition, the momentum has begun with a strategic committee that is focused on defining our classroom, laboratory, and maker space requirements to meet the needs of our growing technical programs. In August, our Department of Computer Science moved into the Hankamer Cashion Academic Center allowing for larger classrooms and additional lab and office space for both the engineering and computer science programs. As we continue to define our space and facility requirements, we will rely heavily on the support of our faithful alumni and donors.

Our donors have continued to give generously to ECS by funding scholarships, sponsoring student organizations, and

participating in classroom presentations and on advisory boards. With a 22 percent female and a 33 percent minority student body, we continue to see positive changes in the diversity of our undergraduate and graduate programs, including a new doctoral program in Computer Science. The donor funding of scholarships has allowed ECS to compete with the scholarship offerings of some of our competitors. As a result, we have continued to see an increase in the mean SAT/ACT scores of incoming freshmen.

While it cannot capture everything that our faculty and students have accomplished, we hope that our 2015-2016 annual report gives you a snapshot of the great things that are happening at the School of Engineering and Computer Science and keeps your eyes on the future of our budding programs.



Dennis L. O'Neal

Dennis L. O'Neal, Ph.D., P.E.
DEAN, SCHOOL OF ENGINEERING & COMPUTER SCIENCE

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and President
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FICHTNER**

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Inventor; IBM Academy of
Technology Member
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Waco, Texas

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The Marco Company
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Ph.D.

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Phantom Aerospace, LLC
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LM Fellow—Airworthiness
and Airworthiness
Certification
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SHAWN SEDATE

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Pariveda Solutions
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EMILE SEVADJIAN

Technology Application
Manager
Halliburton
Dallas, Texas

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Technical Officer
Trinity Industries, Inc.
Dallas, Texas

ANDY SPENCER

President
Engedi Group
Austin, Texas

GREG ST. DENIS

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Televoice
Houston, Texas

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Retired
Dallas, Texas

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Capstone Mechanical
Waco, Texas

TRENT VOIGT

Chief Executive Officer
JetPay, LLC
Dallas, Texas

JIM D. WIETHORN, P.E.

Chairman of the Board,
Principal Engineer
HAAG Engineering, Co.
Houston, Texas

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Senior Director, Engineering
Platform Integration Division
L-3 Communications
Waco, Texas

KIM MACKENROTH

Vice President and Chief
Information Officer
Textron Aviation
Wichita, Kansas

Members of
the Board of
Advocates
voluntarily
assist the
School in
executing its
mission.

**DEPARTMENT OF
MECHANICAL ENGINEERING**

DR. KENNETH VAN TREUREN
Professor, Interim Department
Chair, and Associate Dean of
Research and Faculty Development

MR. RICHARD W. CAMPBELL
Senior Lecturer and Assistant Chair

MR. JOE DONNDELINGER
Clinical Faculty of Professional
Practice (New 2016-2017
faculty member)

DR. BRIAN GARNER
Associate Professor

MR. STANTON GREER
Lecturer

DR. DAVID JACK
Associate Professor

DR. WILLIAM JORDAN
Professor

DR. BENJAMIN S. KELLEY
Professor

DR. JILL KLENTZMAN
Lecturer

DR. JOSEPH KUEHL
Assistant Professor

MR. PATRICK LEA
Senior Lecturer

DR. SUNGHWAN LEE
Assistant Professor

DR. YUE (STANLEY) LING
Assistant Professor (New 2016-
2017 faculty member)

DR. STEPHEN T. MCCLAIN
Associate Professor

DR. BYRON NEWBERRY
Professor

DR. JONATHAN RYLANDER
Assistant Professor

DR. CAROLYN SKURLA
Associate Professor

DR. DOUGLAS E. SMITH
Associate Professor and Graduate
Program Director

DR. LESLEY WRIGHT
Associate Professor

**DEPARTMENT OF
COMPUTER SCIENCE**

DR. GREG SPEEGLE
Professor and
Department Chair

MR. MATTHEW AARS
Senior Lecturer

MR. MICHAEL AARS
Senior Lecturer

DR. ERICH BAKER
Associate Professor

DR. BILL BOOTH
Senior Lecturer

DR. YOUNG-RAE CHO
Associate Professor

DR. JEFF DONAHOO
Professor

DR. MATTHEW FENDT
Lecturer

MS. CINDY FRY
Senior Lecturer

DR. PAUL GRABOW
Professor

DR. GREG HAMERLY
Associate Professor and
Graduate Program Director

DR. DAVID LIN
Associate Professor

DR. PETE MAURER
Professor

DR. G. MICHAEL POOR
Assistant Professor

DR. BILL POUCHER
Professor

DR. EUNJEE SONG
Associate Professor

**DEPARTMENT OF
ELECTRICAL AND
COMPUTER ENGINEERING**

DR. KWANG Y. LEE
Professor and Department Chair

DR. CHARLES BAYLIS
Associate Professor

DR. ENRIQUE BLAIR
Assistant Professor

DR. LIANG DONG
Associate Professor

DR. W. MACK GRADY
Professor

DR. IAN GRAVAGNE
Associate Professor

DR. JONATHAN HU
Assistant Professor

DR. RANDALL JEAN
Professor and Graduate Program
Director

DR. SEUNGHYUN KIM
Associate Professor (New 2016-
2017 faculty member)

DR. SCOTT KOZIOL
Assistant Professor

DR. YANG LI
Assistant Professor

DR. ROBERT J. MARKS
Distinguished Professor

MR. JOHN MILLER
Senior Lecturer and Assistant Chair

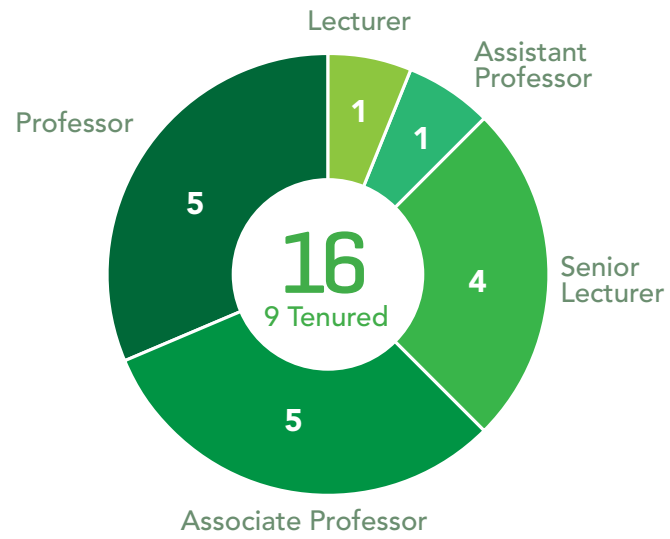
DR. LINDA J. OLAFSEN
Associate Professor

DR. KEITH EVAN SCHUBERT
Professor

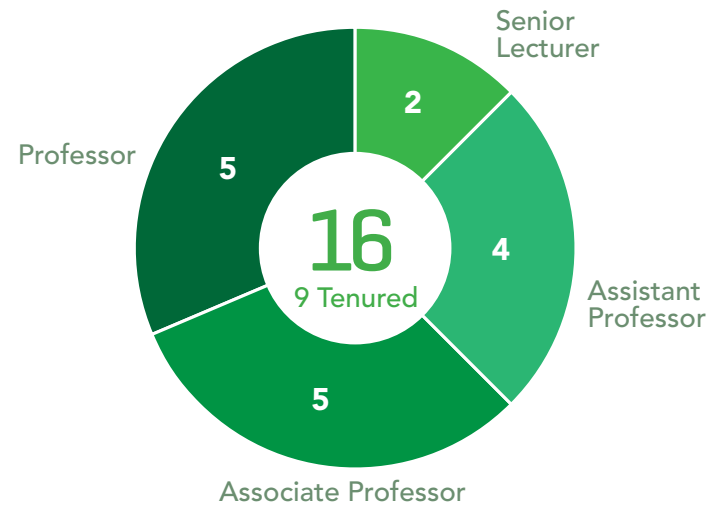
MR. BRIAN THOMAS
Senior Lecturer and Faculty Master
of Teal Residential College

DR. MIKE THOMPSON
Professor and Associate Dean for
Undergraduate Programs

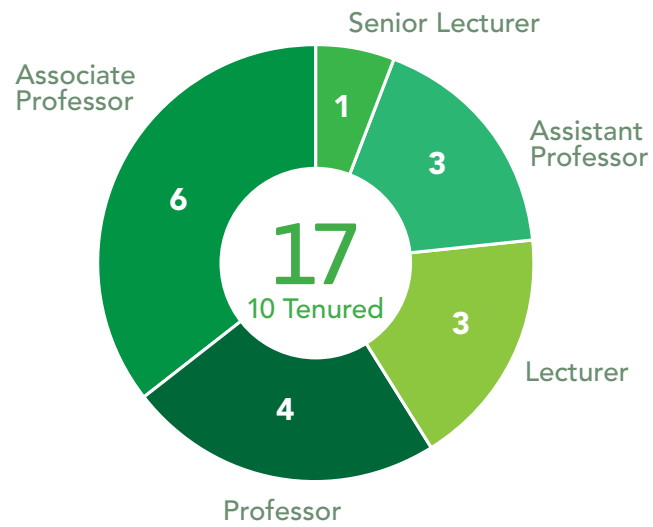
Computer Science Faculty



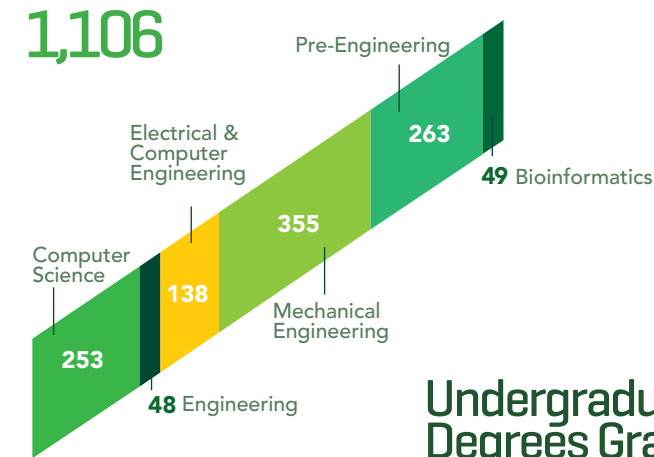
Electrical and Computer Engineering Faculty



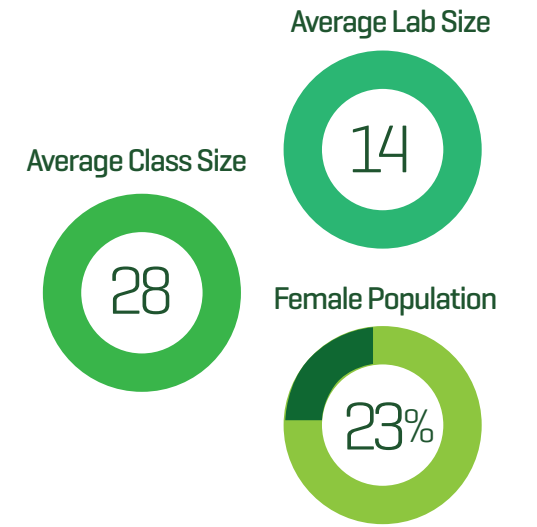
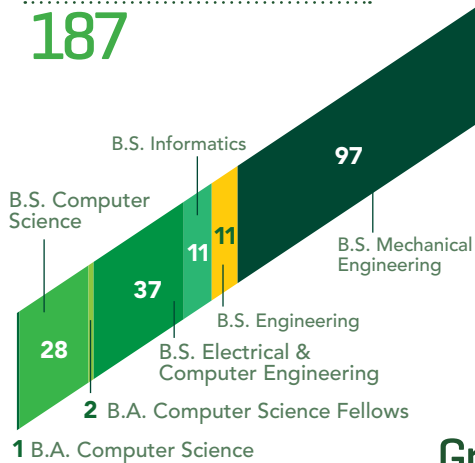
Mechanical Engineering Faculty



Undergraduate Enrollment by Major

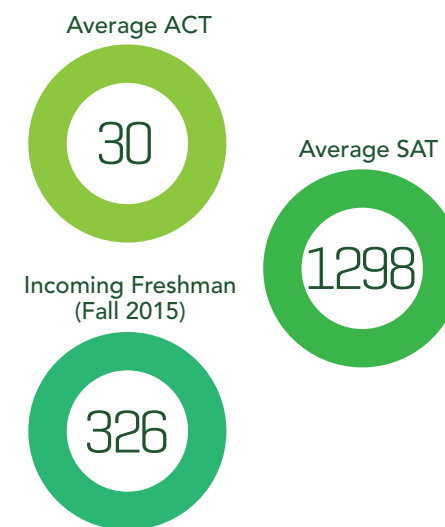


Undergraduate Degrees Granted

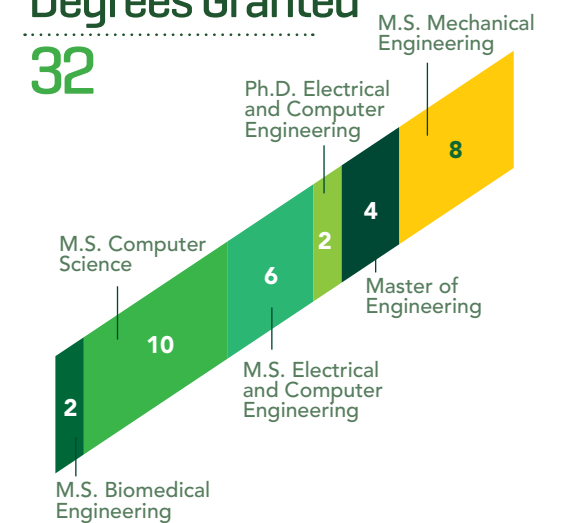


Total Enrollment
1,194
Undergraduate: 1,106
Graduate: 88

Freshman Class Snapshot



Graduate Degrees Granted



We would be remiss to produce an annual report that only lists the financial performance and programmatic statistics of our School without looking at the true measure of our success: our students. Year after year, our faculty educates men and women of a higher caliber and academic accomplishment than the year before. This year is no different.

ROY SHERWIN

MECHANICAL ENGINEERING SENIOR

If you get the opportunity to work with Roy Sherwin, you will soon discover why "restorative" tops his list of strengths according to the StrengthsFinder 2.0 assessment. As a freshman, Roy discovered it was going to take more than natural ability to succeed at Baylor as a mechanical engineering major. After a rocky start, he soon became one of our most driven undergraduate students. His hard work impressed his cohorts and faculty alike.

"I quickly learned the value of self-discipline after a poor first semester," said Roy. "I learned a lot about what I want in life, and those things require that I excel here at Baylor. I would learn soon afterwards that I am passionate about the study of difficult mechanical engineering problems."

This passion for engineering and drive for success, undoubtedly, played a major role in Roy's ability to transform Baylor's American Society of Mechanical Engineers (ASME) chapter from a struggling student group into an active student organization with regular programming, increased visibility, and members that not only compete, but also win awards at ASME competitions.

"It is most crucial that you persevere when you are having the most difficulty," says Roy. "Everyone goes through times of turmoil, and I've learned attitude really is everything."

Ending his undergraduate career on the Dean's List with an impressive résumé that boasts an internship with Samsung Austin Semiconductor and experience as a research assistant in the Composites Lab, we are confident that Roy will have no problem stepping into a career where he can successfully lead team projects by combining his passion for solving complicated problems with his drive to develop computational tools.

"It is crucial that you persevere when you are having the most difficulty."



“I love studying humanitarian engineering because I get to learn about other cultures in addition to learning the fundamentals of engineering.”



BRIAN EDDY

ENGINEERING (HUMANITARIAN
ENGINEERING CONCENTRATION) SENIOR

You might say that attending Baylor University is a family tradition for Brian Eddy. As the eleventh member of his family to attend Baylor, he knew that Baylor was his college of choice, but he had no idea how much he would grow and learn during his time on campus.

“One thing that I have definitely learned at Baylor is that I don’t know everything,” laughs Brian. “One of the most dangerous attitudes in international development is the belief that we know what is best for others. It is wrong for us to force our opinions and solutions on others; instead we need to work alongside each other to create a better future.”

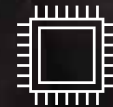
Now a senior in the engineering program with a concentration in humanitarian engineering, Brian has found his calling by combining his math and science aptitude with his fundamental desire to help those who are less fortunate.

“Humanitarian engineering has taught me to look not only at what we can do and what we can build, but also how those things will affect other people,” says Brian. “I love studying humanitarian engineering because I get to learn about other cultures in addition to learning the fundamentals of engineering. I also get to learn how to take steps to help those who can’t help themselves and how I can use my skills and knowledge to do so.”

After working with different nonprofit organizations as an aquaponics engineer and volunteering on a two-week trip to Haiti where he worked on wells and solar panels, Brian hopes to use the technical education, leadership training, and community outreach focus he has gained at Baylor in international development and poverty alleviation.



“People often hold the belief that the humanities and sciences have very little in common, but I’ve come to learn that the same skill sets are required for both: an inquisitive mind, patience, perseverance, creativity, and most of all, a willingness to fail.”



EVAN WESTERMANN

COMPUTER SCIENCE SENIOR

In his famous Rede Lecture, British novelist and physicist Sir C.P. Snow presented his thesis on the cultural split of western society into two cultures: sciences and humanities. It’s a shame that Snow never had an opportunity to meet with senior Computer Science major, Evan Westermann.

As one of our brightest computer science students, people are often surprised to discover that Evan is actively involved with the Baylor Golden Wave Band, Baylor Jazz Ensemble, and Concert Band. His interest in music extends beyond his extracurricular activities into his personal hobbies and interests.


“As I grew up and continued to learn more about music and computer science, I realized

how similar these two seemingly dissimilar fields really are. The work ethic that I developed at a young age, practicing my music for countless hours, translated very well into the same mentality it takes to be a successful computer scientist,” said Evan. “People often hold the belief that the humanities and sciences have very little in common, but I’ve come to learn that the same skill sets are required for both: an inquisitive mind, patience, perseverance, creativity, and most of all, a willingness to fail.”

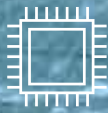
His passion for music coupled with his love for computer science has led to Evan’s drive to change and improve the world through technology. As a self-professed “eternal student,” Evan’s desire to learn new skills and grow in knowledge keeps him focused and prepared for whatever challenges come his way.

“I love to create things, as many people do. Some people enjoy making baked goods, while others like to cultivate a garden or get hands-on with wood shop or metal working. For me, my sandbox is code,” he explains. “I enjoy being able to develop and create whatever I can think of and then see it come to life on my computer screen. In such a digitally-inclined world, all aspects of life are aided in some way by technology that a computer scientist has had their hand in. I want to be part of that process.”

Having discovered his calling in life, Evan prepares to end his undergraduate career at Baylor with confidence, hoping to encourage and inspire others to pursue their dreams while doing everything to the best of their abilities.



“In the future, I hope to use computer science tools and mechanisms to solve health problems.”



ALEX SALO

COMPUTER SCIENCE GRADUATE STUDENT

Originally from Russia, Alex Salo earned his B.S. in Computer Science from Voronezh State University in Voronezh, Russia. After graduation, he started a local web studio before moving to Moscow and working on business process optimization for Liberty Grant while studying finance. With dreams of working his way up at Google, Alex decided to pursue a master's degree in Computer Science at Baylor.

Under the mentorship of Dr. Erich Baker, professor of bioinformatics, Alex focused his research on applying machine learning algorithms to predict categorical drinking outcomes in non-human primates. Dr. Baker's lab runs the Monkey Alcohol and Tissue Research Resource (MATRR) for a large collaboration effort run by Dr. Kathy Grant, professor of behavioral neurosciences at Oregon Health & Science University, and the Oregon National Primate Research Center.

Together, they collect deep phenotype data from numerous macaque studies and develop analysis methods to help identify behavioral and molecular characteristics of drinking.

“Using random forests models, Alex was able to identify several behavioral characteristics in this animal model that predicts which animal will go on to become a heavy drinker,” explains Dr. Baker. “If we can translate these predictive characteristics to humans, then we might be able to provide early intervention to those at risk of heavy drinking.”

“I now realize that there is so much we don't know. And that's fine, as long as we keep tackling one important thing at a time,” says Alex. “In the future, I hope to use computer science tools and mechanisms to solve health problems, as well as make simple day-to-day routine operations more efficient.”

When he is not in the computer lab solving complex problems, Alex can be found playing sports and enjoying the outdoors.



ALICIA MAGEE

ELECTRICAL AND COMPUTER ENGINEERING SENIOR

Alicia is a student that possesses an innate inner drive towards achievement. And as a speaker that leads seminars on time management, a peer leader in multiple students groups, an undergraduate research assistant, and a 4.0 Electrical and Computer Engineering major, she has a few achievements to claim as her own.

“I have always loved problem solving, and engineering is a field that has given me a chance to solve real problems,” says Alicia. “I chose electrical and computer engineering because computers and other electronic devices fascinate me. They're small, very powerful, and present in almost every aspect of life. Knowing how to create and control them gives me an opportunity to make big advancements in almost any area of life. That excites me and motivates me to work.”

Despite her involvement in multiple extracurricular activities such as The Baylor Bronze handbell ensemble, Brooks College Council, Engineers with a Mission, and undergraduate research on joint waveform and circuit optimization for reconfigurable radar, Alicia is already setting her sights on post-graduation goals.

“As I continue in my career, I want to use the skills I've developed and the knowledge I've gained in Baylor's engineering program to meet real needs,” says Alicia. “Whether reaching individual students in a classroom, heading up an innovative, humanity-focused engineering team as a project manager, or writing software for equipment that makes life easier for those who face challenges in everyday life, I'm passionate about serving those around me.”

With Alicia at the helm, we foresee engineering solutions with global benefits that lead to healthy change for all of us.

“I have always loved problem solving, and engineering is a field that has given me a chance to solve real problems.”



“I have learned how to look at solving a problem in more than just a straightforward way.”

TANNER TRAPP

ELECTRICAL AND COMPUTER ENGINEERING GRADUATE STUDENT

Our graduate programs often draw some of the best and brightest students from our undergraduate programs. Tanner Trapp is one of those students. As a freshman at Baylor, Tanner rose to the top of the Dean's List and never left, maintaining a 4.0 GPA throughout his undergraduate career. In 2015, he graduated summa cum laude with a B.S. in Electrical and Computer Engineering (ECE).

“I am fascinated by the day-to-day problems that can be solved through electrical and computer engineering,” said Tanner. “The more I learn, the more I realize how vast the ECE field is and how beneficial to society it can be.”

As a graduate student, Tanner exemplifies the mission of Baylor University to prepare students for worldwide leadership and service, combining with his natural aptitude for academic success, a passion for education, and the integration of his faith.

Tanner has focused his two-fold research on the area of Microwave Applied Metrology. Under the mentorship of Dr. Randall Jean, graduate program director and professor of electrical and computer engineering, he hopes to develop a microwave sensor for the detection of ice in the atmosphere and measure the accretion of ice on a metallic surface using microwave-sensing techniques. Tanner's research aims to address the problem of aircraft engine icing. The first sensor will serve as an alert of present icing conditions, and the second sensor will provide a warning that ice is accreting inside the engine. Though research is still ongoing, he and Dr. Jean are confident in their ability to increase the safety of aviation.

“I have learned how to look at solving a problem in more than just a straightforward way. Rarely ever do I start working on something without finding out I need to completely change my perspective to get the job done,” he said. “This approach has proven to be valuable already, and will

continue to benefit me in my career.”

After earning his master's degree, Tanner hopes to work as a design engineer specializing in radio frequency and microwave systems. He also hopes to start a family with his new wife, Sara, spend time as a missionary in a foreign country, and ultimately bring glory to God.



SARA TOUDESJKI SEITZ

MECHANICAL ENGINEERING PH.D. CANDIDATE

Sara Toudeshki Seitz earned her B.S. in Chemical Engineering from Iran University of Science and Technology in 2009. She went on to earn a M.S. in Renewable Energy Engineering from the Institute of Materials and Energy and a M.S. in Mechanical and Energy Engineering for the University of North Texas. Now as a Ph.D. candidate in the Department of Mechanical Engineering, Sara is developing Planar Laser-Induced Fluorescence (PLIF) for the application of gas turbine cooling technology.

As Sara works to implement PLIF measurements, she is developing a cutting-edge measurement technique that will provide insight into the physics of convective heat transfer. With an understanding of thermal boundary layer development over a surface, more efficient cooling technology can be developed and implemented into anything from gas turbines to high-power electronics.

“Sara's background in chemistry has been an asset to this project as she considers how the fluorescence behavior of various substances is influenced by temperature,” said Lesley Wright, Ph.D., associate professor of mechanical engineering. “The temperature field measurements obtained using PLIF will be combined with surface temperature measurements and velocity measurements of the flow to fully characterize turbulent flows used for a variety of cooling applications.”

“I want to gain experience while furthering my abilities as an engineer.”

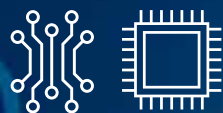


“As engineers, we develop new systems and functions that make life simpler. We answer the questions no one else can answer, and we ask the questions no one else knows to ask,” said Sara. “I get the chance to approach difficult tasks and apply my knowledge to better the world. Engineers, especially in the research and development field, get the joy of never experiencing the same day twice!”

As Sara continues to make a name for herself in the academic world, her long-term goal is to continue her research on gas turbine cooling in an R&D position at a well-established company.

“I want to gain experience while furthering my abilities as an engineer,” she said. “I hope to become a household name in the engineering field one day.”

If the past is any indicator of the future, we have no doubt that Sara will indeed lead researchers to the forefront of advanced technology.



AMERICAN SOCIETY OF MECHANICAL ENGINEERING (ASME)

The Baylor Chapter of the American Society of Mechanical Engineers seeks to provide engineering students of a variety of disciplines with professional development and networking skills, exposure to the world of professional engineering, and a forward-focused community for innovative collaboration. Baylor ASME includes a Robotics Design team that competes annually at the ASME Student Professional Development Conference. In spring of 2017, Baylor ASME plans to host this conference in order to network and share ideas with ASME student chapters at other major universities. Baylor ASME's mission of "Setting the Standard" for excellence serves as a guide for its operation and leadership.

ASSOCIATION FOR BIOINFORMATICS AND BIOTECHNOLOGY (ABB)

Association for Bioinformatics and Biotechnology is a student organization dedicated to helping build and foster common interests in Bioinformatics within the major and among like-minded students. ABB provides members with a better understanding of Bioinformatics, a network with other students, professors, and professionals in the field, and support for scholarly success. These goals are achieved through monthly meetings, attendance of symposia, and other social activities.

ASSOCIATION FOR COMPUTING MACHINERY (ACM)

The Baylor Student Chapter of ACM was chartered in 1974 and assists members in maintaining a close, regular association with fellow students and faculty who are also interested in computing. In addition, the chapter sponsors the Baylor Programming Team which competes in the ACM Regional and ACM International Collegiate Programming Contests. Periodic meetings provide a combination of social interaction, professional dialogue, public service, and professional development. Membership is open to anyone with an interest in computing.

BAYLOR BIOMEDICAL ENGINEERING SOCIETY (BMES)

The mission of the BMES is to build and support the biomedical engineering community, locally, nationally and internationally, with activities designed to communicate recent advances, discoveries, and inventions; promote education and professional development; and integrate the perspectives of the academic, medical, governmental, and business sectors.

BAYLOR THEME PARK ENGINEERING AND DESIGN (BTPEd)

Baylor Theme Park Engineering and Design is a student organization focused on creating a collaborative environment for all students interested in the theme park industry. The organization is open to all majors in hopes of bringing together both technically innovative and artistically creative minds. In addition to regular creative-thinking challenges, the organization forms student-led teams that compete in the Disney ImagiNations design competition each year. Through monthly meetings and guest speakers, BTPEd connects passionate students with each other and to opportunities in the amusement park industry.

BAYLOR UNDERGRADUATE RESEARCH IN SCIENCE & TECHNOLOGY (BURST)

BURST is an undergraduate student organization focusing on providing information and opportunities for students to enhance their undergraduate research experience, hosting lectures to educate students about the principles of research, and increasing the awareness of the importance of undergraduate research for those involved in science, technology, engineering, and math.

BAYLOR AMATEUR RADIO CLUB

The Baylor Amateur Radio Club (BARC) provides educational opportunities for students concerning the scope of amateur radio and radio license acquisition, opportunities for public service during emergency situations and local charitable activities, and an

operable amateur radio station for members. BARC is made up of students and faculty from Baylor University.

BAYLOR BUV (BASIC UTILITY VEHICLE)

Baylor BUV is a humanitarian organization that provides undergraduate engineering students hands-on experience with design and construction of a Basic Utility Vehicle (BUV) for developing countries and mission activities.

BEAR BOTS

Bear Bots is a brand new organization that plans to get involved with local robotics competitions in the Waco community. The organization will also serve to network faculty and students who are passionate about the area of robotics.

COMPUTING FOR COMPASSION (C4C)

Computing for Compassion (C4C) serves compassion-based ministries through the appropriate application of computing solutions. Such solutions seek to magnify the capabilities of such ministries by solving their most frustrating problems. C4C enables students an opportunity to apply their technical skills to such mission work, gaining real-world experience along the way.

ENGINEERS WITH A MISSION (EM)

Engineers with a Mission (EM) is a unique Christian organization that envisions and mobilizes engineering students to serve the people of developing countries with their technical skills through appropriate technology projects and mission-oriented trips abroad. Membership is two-tiered: any engineering major may be a general member, but the technical and spiritual core is made up of the Project Implementation and Testing (PIT) Crew, which utilizes a more selective application.

ETA KAPPA NU

Eta Kappa Nu (HKN) is the national honor society for Electrical and Computer Engineering students. Baylor's group is the Kappa Tau Chapter. Membership is by invitation and is based on a review of the student's high academic

record and character. Junior ECE majors in the upper fourth, and senior ECE students in the upper third, of their respective classes are eligible for consideration and election to HKN.

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

The Baylor University Student Branch of the IEEE is affiliated with the Institute of Electrical and Electronics Engineers, Inc. (IEEE), an international organization which is the world's largest technical professional society. Through projects, field trips, and meetings, the student branch fosters the professional growth of its members and promotes a closer relationship among students, faculty, and the engineering community. Baylor Student Branch membership is open to any student member of IEEE. Student membership in IEEE is open to students studying engineering, computer science, or a related field.

NATIONAL SOCIETY OF BLACK ENGINEERS (NSBE)

Baylor University's Chapter of the National Society of Black Engineers (NSBE) is available to all students majoring in engineering, science, or applied mathematics. The NSBE mission statement is "to increase the number of culturally responsible Black engineers who excel academically, succeed professionally and positively impact the community." The objective of the Chapter is to encourage the professional career development of African-American and other ethnic minorities in engineering and other science/technology-related fields at Baylor University. Furthermore, the Chapter strives to promote fellowship among minority students in order to increase the number of minority students entering and graduating with a degree in engineering or other related fields.

PI TAU SIGMA

Pi Tau Sigma is an International Mechanical Engineering Honor Society, instituted in order to establish a closer bond of fellowship among its members. Its goal is the mutual benefit of those men and women in the study and profession of Mechanical Engineering (ME). Pi Tau Sigma's core values are integrity, service, and leadership. Membership offers are extended each semester to junior and senior ME majors based on scholarship and character. Baylor's Beta Beta chapter of PTS seeks to provide opportunities to

build relationships with other Mechanical Engineers and to learn about different areas of the industry.

SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) INTERNATIONAL

SAE International (formerly the Society of Automotive Engineers) has more than 121,000 members — engineers, business executives, educators, and students from more than 97 countries — who share information and exchange ideas for advancing the engineering of mobility systems. SAE is your one-stop resource for standards development, events, and technical information and expertise used in designing, building, maintaining, and operating self-propelled vehicles for use on land, at sea, in air or space. The Baylor University Collegiate Chapter of SAE International is available to all students at Baylor who share a common interest in aerospace, automobiles, commercial vehicles, or motorsports. The organization provides opportunities to grow as an engineer and a professional through company tours, professional speakers, and student competitions. The Baylor Formula SAE team recently designed, built, tested, and competed the first of many Formula SAE cars to come.

SOCIETY OF PLASTIC ENGINEERS (SPE)

The Society of Plastics Engineers is a multidisciplinary organization that strives to increase interest in the area of plastics engineering, plastics scientists, and professional careers in the industry. As part of our mission, the Baylor SPE chapter will provide opportunities for students to learn about plastics engineering by inviting experts in the field to Baylor for symposia and organize industrial site visits to companies using plastics. SPE will also organize extra-curricular education sessions with hands-on training with industrial and characterization equipment not available in the standard undergraduate curriculum. As part of our mission statement we will also provide to Baylor students information about career opportunities in the field of plastics engineering.

SOCIETY OF WOMEN ENGINEERS (SWE)

Baylor University's Student Section of the Society of Women Engineers is open to all engineering and computer science students, both male and female. The goals of the section are: to provide education

about the challenges facing female engineers; to create a sense of identity and community; to provide resources for women engineers; and to enhance leadership and professional skills. These goals are achieved through mentoring relationships, presentations, field trips, and other activities.

THETA TAU

Theta Tau is the oldest, largest, and foremost fraternity for engineers. Founded in 2015 by its 19 charter members, the Baylor chapter of Theta Tau is now a fully functional professional fraternity of outstanding men and women. With emphasis on quality and a strong fraternal bond, the Fraternity has chapters only at ABET-accredited schools and limits the number of student members in any one of its chapters across the nation. The mission of Theta Tau is to develop leaders for profession, service, and brotherhood.

UPSILON PI EPSILON

Upsilon Pi Epsilon is an honorary computer science association that promotes high scholarship and original investigations in the branches of computer science. Membership in the Baylor chapter is composed of individuals whose academic achievements, reputations, and creative abilities deserve recognition. The chapter inducts members twice each year and assists students in their academic pursuits.

WOMEN IN COMPUTER SCIENCE (WICS)

Baylor's Women in Computer Science (WiCS) is available to all female majors in the Department of Computer Science as well as to other females in STEM fields at Baylor. WiCS is designed to promote community among female computer science majors through discussion-based reading groups in addition to Q&A sessions with professional women in tech industries. In addition to developing community, WiCS is designed to limit attrition among females in the major. Through intentional peer mentorships, one to two upper-division females will meet weekly with two to three students to talk about courses, challenges, perseverance, and internship/job opportunities within Computer Science.

OFFICE OF CORPORATE AND FOUNDATION RELATIONS

The Office of Corporate and Foundation Relations (CFR) bridges the corporate and academic worlds, developing partnerships that align business objectives with Baylor University's strategic initiatives. As a single University entry point, we facilitate access to knowledgeable faculty and researchers, talented students, high-tech facilities, market-ready technologies, and opportunities for philanthropic support of transformational programs.

Baylor's corporate and foundation relations' strategy will foster long-term, mutually beneficial partnerships that advance simultaneously the university and corporation's goals and objectives. The focus of Baylor's engagement has shifted from transaction to relationship. Identifying, establishing and maintaining long-term, intentional relationships with corporations is essential in support of Baylor's strategic vision, *Pro Futuris*.

With an inclusive vision of corporate interactions at Baylor, Corporate and Foundation Relations is well positioned to assist you in identifying partnership opportunities by:

- Matching your business' strategic goals with University initiatives
- Identifying robust opportunities for maximizing impact
- Articulating the value proposition the University offers
- Facilitating worthwhile, effective interactions between campus leadership and your company representatives
- Communicating attainment of collaborative goals and return on philanthropic investment

The Office of Corporate and Foundation Relations facilitates relationships and helps forge connections as your single point of contact.



Office of Corporate & Foundation Relations
One Bear Place #97026
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(254) 710 - 2561
baylor.edu/giving/cfr

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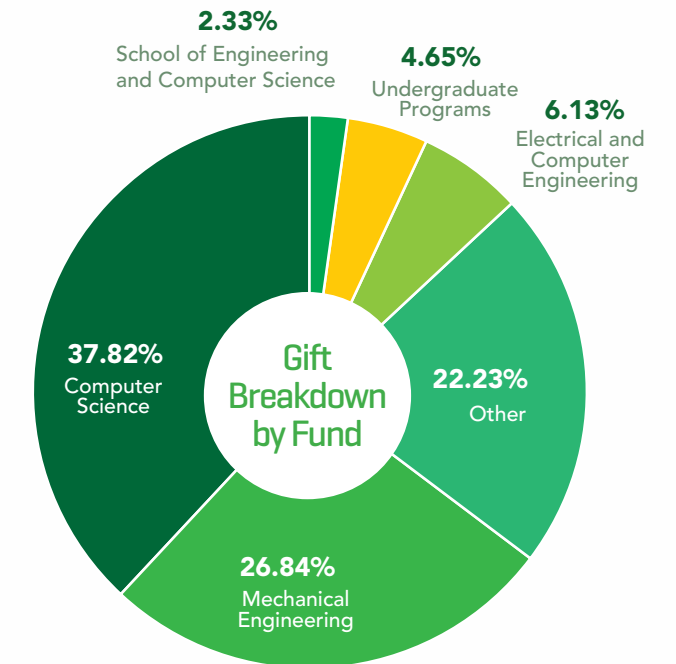
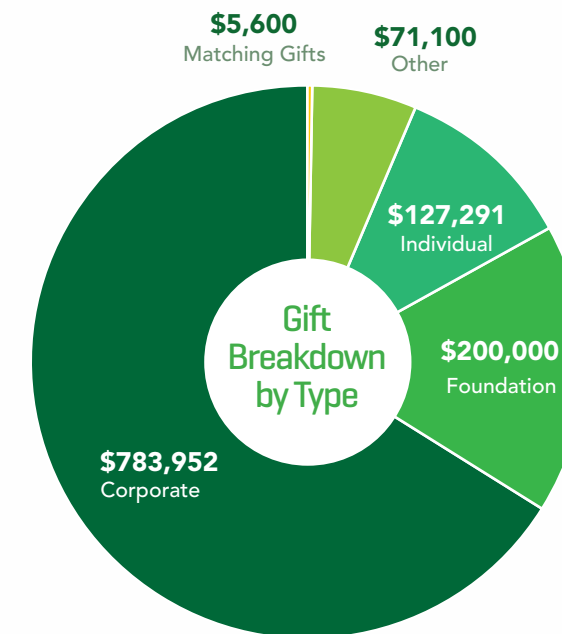
Joanne Spitz
Senior Director of Grant Initiatives, Corporate and Foundation Relations
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Research Information

| |
|---|
| Amount of total research awards: \$1.79 MILLION |
| Total amount of research expenditures: \$1.66 MILLION |

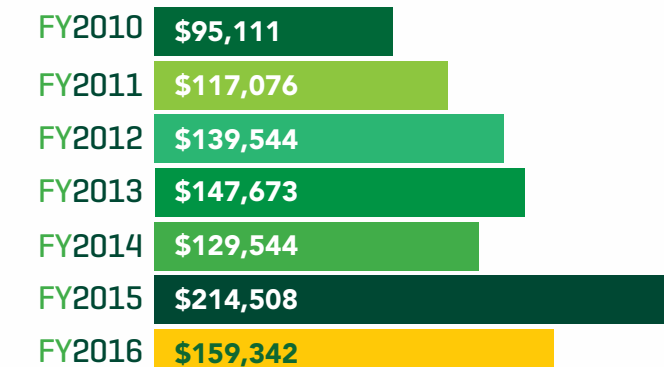
39
Total Number of Research Awards

Development Information



Annual Giving Statistics

Gifts > \$10,000



FY2016 Annual Giving
\$159,342.71

Total Number of Donors
201



BAYLOR
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