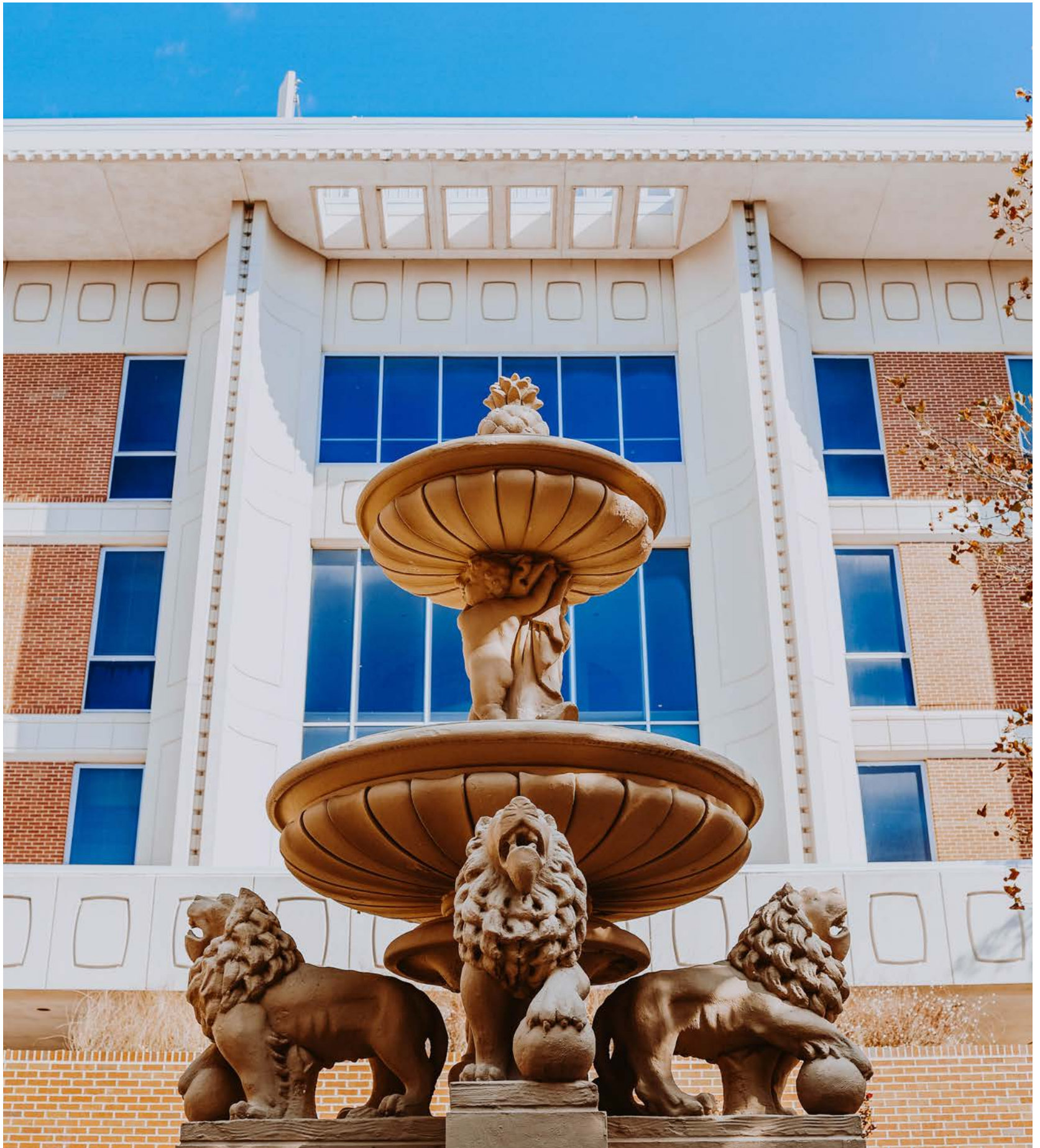


# CORPORATE ENGAGEMENT OPPORTUNITIES



GALLOGLY  
COLLEGE OF ENGINEERING  
*The UNIVERSITY of OKLAHOMA*





# ABOUT GALLOGLY COLLEGE

The Gallogly College of Engineering has an ambitious goal to increase our student body to meet the growing need for engineers nationwide. We are committed to producing the best prepared engineering graduates who are equipped to contribute solutions to the complex challenges faced by our state, region and nation. At the University of Oklahoma, we are working to bridge the gap by intentionally growing our ecosystem of education and research.

## ENROLLMENT:

3,300+ undergraduates and 1,100+ graduate students (an increase of nearly 40%)

## STUDENT ENGAGEMENT:

40+ Student Organizations  
9 Competition Teams

## SCHOOLS AND MAJORS:

### School of Aerospace and Mechanical Engineering

- Aerospace Engineering
- Mechanical Engineering

### Stephenson School of Biomedical Engineering

- Biomedical Engineering

### School of Civil Engineering and Environmental Science

- Architectural Engineering
- Civil Engineering
- Environmental Engineering
- Environmental Science

### School of Computer Science

- Computer Science

### School of Electrical and Computer Engineering

- Electrical Engineering
- Computer Engineering

### School of Industrial and Systems Engineering

- Engineering Analytics
- Industrial and Systems Engineering

### School of Sustainable Chemical, Biological and Materials Engineering

- Chemical Engineering
- Chemical Engineering: Bioengineering
- Chemical Engineering: Sustainability

### Degree Programs

- Engineering Physics
- Data Science & Analytics

### Certificates

- Data Science and Analytics
- Engineering Leadership
- Bioprocessing
- Artificial Intelligence/Machine Learning

### Polytechnic Institute

- Applied Artificial Intelligence
- Software Development and Integration
- Health Information Systems

### Graduate Online Degrees

- Advanced Manufacturing
- Applied Computing
- Civil Engineering
- Data Science and Analytics
- Engineering Leadership and Management
- Hydrology and Water Security
- Industrial and System Engineering
- Sustainability Energy and Materials Management

## STUDENT SUPPORT AND SUCCESS PROGRAMS:

- Summer Bridge
- Engineering Pathways
- Engineering Catalyst
- Engineering Broader Impacts
- Jerry Holmes Leadership Program
- Career Development for Engineers & Scientists

*Petroleum Engineering is housed in the Mewbourne College of Earth and Energy*



# CORPORATE PARTNERSHIPS AND BRANDING

We invite you to recruit students and engage with the leadership of the Gallogly College of Engineering. This engagement guide highlights the amazing opportunities available throughout the college with our innovative programs, nationally ranked schools and highly active student organizations and competition teams.

Your gift can be divided and directed anywhere within the college, ensuring your impact and access to future engineers is exactly where you need it to be. Varied events, activities and needs are listed throughout the guide.

Contact a member of the Corporate & Foundation Relations Team and we can build you a customized partner opportunity that includes robust listing of events.

## **VISIONARY PARTNER – \$25,000 ANNUALLY**

- An annual meeting with Gallogly College leadership on the state and future of OU Engineering
- Brand visibility via OU Engineering website, electronic newsletters and event programs
- Banner in the Rawl Engineering Practice Facility
- Corporate recruitment opportunities hosted in the engineering quad
- Corporate representation at up to three programs or events

## **Innovative Partner – \$15,000 annually**

- Brand visibility via OU Engineering, electronic newsletters, event programs
- Corporate representation at up to two programs or events

## **Signature Partner – \$5,000 annually**

- Brand visibility via OU Engineering
- Opportunity to attend one program or event



# CORPORATE & FOUNDATION RELATIONS TEAM



**STACEY WILLENBORG**

Executive Director of Corporate & Foundation Relations  
swillenborg@ou.edu | 405.310.4817

**Point of Contact for the following areas:**

Energy/Oil & Gas	Retail	Regional Focus: Houston
Physical Sciences	Consulting	VPRP Pillar – OU Energy
Chemicals	Community Foundations	
Banking/Finance/	Tribal Nations	
Accounting/Insurance		



**TRACY CURTIS**

Director of Corporate Relations | tcurtis@ou.edu | 405.914.4876

**Point of Contact for the following areas:**

Aerospace/Defense/	Biotech/Biomed	VPRP Pillars – Extreme
Aviation/Space/Weather/	Engineering	Weather, Health Innovation,
Climate	Entrepreneurship	National Security and
Health & Wellness	Student Affairs	Defense
Healthcare Business	Regional Focus: OKC/	
Life Sciences	Denver	



**RON SMITH**

Director of Corporate Relations | ronaldsmith@ou.edu | 405.914.4819

**Point of Contact for the following areas:**

Information and Data	Transportation (non-aviation)	Regional Focus: Dallas/Austin
Technology	Construction/Architecture/	
Manufacturing/Logistics/	Civil Engineering	
Supply Chain (non-aero)	Advertising, Media,	
Electronics	Marketing	



**JEFFERY VOLZ, S.E., P.E., PH.D.**

Associate Dean for Partnerships | volz@ou.edu | 405.325.1489





# STUDENT SUPPORT PROGRAM





RAMS



# ENGINEERING PATHWAYS

The first of its kind in the region, the Gallogly College Engineering Pathways program employs leading education experts in outreach, recruitment and retention to grow and support our engineering student body. From early engagement with prospective engineering students, the Engineering Pathways team encourages students along their engineering path.

## OUTREACH AND RECRUITMENT

Our vision for opening doors to rewarding careers in engineering begins with outreach for pre-K through 12th grade students, families and teachers. Through visits to schools and communities, as well as on campus workshops, tours and information sessions, prospective engineers and scientists can learn about the programs within Gallogly College. Specific outreach opportunities can be found in the "Student Support Programs: Outreach" section.

## ENGINEERING CATALYST

Engineering Catalyst offers an alternative path to an engineering degree for highly motivated, first-year students who are beginning their engineering degree in a math class before Calculus 1. Through the Catalyst program, students have dedicated faculty in specially designed courses and receive intentional, individualized advising and mentoring to build a strong foundation for their engineering degree. Catalyst scholars are provided with scholarships during the program to help relieve financial strain and to encourage continued math enrollment.

## EMPOWER

EMPOWER provides mathematics support to all Gallogly College students, including mentorship, math review, one-on-one consultation, study nights, calculus workshops, in-class review sessions, Canvas modules, online homework sets and more. Support is available year around through our faculty math retention specialists.





## FIRST YEAR ENGINEERING CURRICULUM

Our two-semester sequence of first-year courses is designed to provide a robust foundation for all Gallogly College students. The two courses include Pathways to Engineering Thinking and Engineering Design in Action. In both courses, student interdisciplinary teams design and create technical solutions for a problem posed by a community partner. The curriculum brings the excitement of "doing" engineering into our first-year studio.

## UNDERGRADUATE RESEARCH

Research enables students to have a deeper understanding of complex problem solving for engineering and technology disciplines. We understand that participation in research also builds confidence, creativity and communication skills.

### Events and Activities:

- First-Year and First-Generation Retention Programs
- Camp Crimson Welcome Event
- Community Building Activities
- ROTC and Veteran Programs

*We welcome you to learn more about Engineering Pathways and opportunities for corporate support and engagement. Should you choose to support this program through all or part of your sponsorship, you will have the opportunity to engage and brand your company through the events and activities listed above.*





# CAREER DEVELOPMENT FOR ENGINEERS & SCIENTISTS

This exciting new program was launched in the fall of 2024 and serves all students in the Gallogly College of Engineering and the Mewbourne College of Earth & Energy. Its overlapping focal areas are leadership, inclusive excellence and workplace readiness. It provides programming and services to prepare engineering and science students to become professionals and transition successfully to the workforce.

## JERRY HOLMES LEADERSHIP PROGRAM FOR ENGINEERS AND SCIENTISTS

Through a pillar-based approach, students enhance their capabilities across five domains: personal development, interpersonal relationships, management and teamwork, leadership and intercultural competence. In 2024, over 260 students were enrolled in leadership courses and over 700 students participated in activities.

Leadership courses provide in-depth, reflective education and practical application of leadership concepts and skills. Students learn how to exercise leadership in a variety of contexts, emphasizing collaborative leadership in technical organizations. A new suite of courses offers a solid foundation in business, finance, accounting and capital investments, with a focus on their application in technical industries.

Holmes Leadership Associates enjoy additional leadership development opportunities, including professional mentorship, leadership coaching and HLA-only events with employers and executives. HLA students have the opportunity for experiential leadership learning by participating in a formal, extended activity that promotes leadership development.

### Activities Include:

- Distinguished Speaker Days
- Leadership Workshops
- Engineering Leadership Courses
- Holmes Leadership Associates
- Networking





## WORKPLACE READINESS

To help students achieve our goal of being the best prepared engineering graduates, workplace readiness focuses on developing and enhancing professional skills. Students learn from faculty, peers and professionals and engage in activities and events that allow them to practice and hone their workplace readiness.

### Events Include:

- Annual Engineering Career & Internship Fair
- Interview Preparation
- Engineering Leadership Roundtables
- Interest Groups for Professional Development

### Activities include:

- Placemaking/Recharge Student Community Initiative
- All Hands-on Deck Profiles in Engineering Oral History
- Wayfinding Peer Mentoring Program
- Engineering Living Learning Community
- K-12 Outreach

*Funding supports the elements of the Career Development for Engineers and Scientists listed above. We welcome you to learn more about this program and opportunities for corporate support and engagement. Should you choose to support this program through all or part of your sponsorship, you will have the opportunity to engage and brand your company through the events and activities listed above.*





# ENGINEERING BROADER IMPACTS

This program provides comprehensive support to students within the Gallogly College of Engineering and Mewbourne College of Earth and Energy. Specifically, the Engineering Broader Impacts program focuses on successful transition into college, academic community building and ongoing professional development. It aims to enhance students' confidence, growth and readiness to succeed academically and professionally, thereby fostering an accessible and supportive environment.

The program is open to all and serves many more students, including more than 200 Engineering Broader Impacts scholars. A strong sense of belonging ensures everyone is heard and is safe to propose unique ideas, helping to promote and foster growth across a multitude of areas.

## Activities include:

- Scholarship Support
- Monthly Meetings
- Faculty Lunch Series
- Industry Visits
- Mentoring

## ENGINEERING SUMMER BRIDGE

One major strategic enterprise is the Engineering Summer Bridge program. This is the premier transition program for the Gallogly College of Engineering and Mewbourne College of Earth and Energy, annually enrolling 50 first-year students and having supported over 700 engineering students since its inception in 2007. Summer Bridge is designed around three supporting pillars – professional development, academic preparedness and community building. This program fosters personal growth and engineering identity formation while preparing students for academic and professional success.

During the summer program, students gain early exposure to industry through professional development seminars, corporate spotlight sessions and industry site visits, providing corporations with a unique opportunity to interface with and inspire talented students early in their academic journeys. Student participants receive academic support, including structured study sessions and the opportunity to earn course credit for a math class tailored to their academic level. These students build lasting connections within the OU engineering community, supported by a team of student mentors who guide participants during the program and throughout their college journey. Ongoing support includes retention initiatives, such as industry internship fair preparation, focused study sessions and scholarship workshops, ensuring students remain connected to resources that promote their long-term success. Many Summer Bridge alumni have gone on to lead campus organizations, engage in undergraduate research and secure positions at top companies.

*Funding supports the elements of the Engineering Broader Impacts program listed above. We welcome you to learn more about this program and opportunities for corporate support and engagement. Should you choose to support this program through all or part of your sponsorship, you will have the opportunity to engage and brand your company through the events and activities listed above.*





# STUDENT LIFE

The Gallogly College of Engineering proudly supports over 40 student organizations and 9 competition teams, providing students with a range of opportunities to explore their interests and develop leadership skills inside and outside of the classroom.

## Annual Engagement Opportunities

- Fall Fest
- Engineers Week

## STUDENT ORGANIZATIONS AND TECHNICAL SOCIETIES

### General Organizations

- Alpha Sigma Kappa – Women in Technical Studies
- American Indian Science and Engineering Society
- Engineers Serving Others
- Engineers' Club
- Girls Who Code @OU
- Hacklahoma
- Loyal Knights of Old Trusty
- National Society of Black Engineers
- Out in Science, Technology, Engineering, and Math
- Society of Asian Scientists and Engineers
- Society of Hispanic Professional Engineers
- Society of Women Engineers
- Sooners Without Borders
- Tau Beta Pi
- Triangle

### Industry-Specific Organizations

- American Institute of Aeronautics and Astronautics
- American Institute of Chemical Engineers
- American Society of Civil Engineers
- American Society of Engineering Education
- American Society of Mechanical Engineers
- Architectural Engineering Institute
- Association for Women in Computing
- Biomedical Engineering Society
- Biomedical Engineering Student Association
- C3 Cybersecurity Club
- Chemical Engineering Graduate Society
- Chi Epsilon (Civil Engineering)
- Computer Science Interview Prep Club
- Computer Science Student Board
- Environmental Science Student Association
- Game Developers' Association
- Institute for Operations Research and Management Sciences
- Institute of Electrical and Electronics Engineers
- Institute of Industrial and Systems Engineers
- International Society of Pharmaceutical Engineering
- OU Artificial Intelligence/Machine Learning Club
- Society of Manufacturing Engineers
- Society of Plastic Engineers
- Structural Engineering Institute
- Students for the Exploration and Development of Space
- Sustainable Energy Society



### Competition Teams

- Boomer Rocket Team
- Chem-E Car
- Concrete Canoe
- OU Design Build Fly
- Sooner Competitive Robotics
- Sooner Off-Road
- Sooner Racing Team
- Sooner Rover Team
- Steel Bridge



Many of our student orgs and teams have separate sponsorship packets. Visit [ou.edu/coe/student-life](https://ou.edu/coe/student-life) or scan the QR Code to connect with them directly. Support at visionary level provides funding distributed across organizations through an application/budgeting process.



# OUTREACH

The Gallogly College of Engineering Outreach and Recruitment Office plays a critical role in identifying and nurturing the next generation of engineers and scientists. We believe that access and opportunity are essential to growing the engineering student body and to help us meet the needs of the engineering workforce. As such, the outreach mission is to engage, encourage and empower pre-collegiate students. Through on- and off-campus events and activities, the staff work with prospective students and their supporters to provide the academic and support resources needed to help students decide their own educational future. In the past year, nearly 10,000 students have seen the possibility of an OU engineering degree.

Programs like Engineering Open House, which has existed for over a century at OU, and Engineering Days, a summer program that invites students to experience a “day in the life,” are pivotal to expanding the concept of “what is an engineer” to students across the region. Every single day students from pre-K through 12th grade are engaging with OU engineering. These include daily hands-on experiences with our Sooner Engineering Education Center, tours and visits with our Student Engineering Ambassador team and different programs and experiences open to students.

## Activities Include:

- Engineering Days
- Engineering Open House
- Engineering Experience Lunches
- GLAMS *\*Led by Society of Women Engineers*
- High School Girls Day *\*Led by Society of Women Engineers*
- Indigenous Engineering and Business Day *\*Led by American Indian Science and Engineering Society*
- Kenney Engineering Teacher Development Program

*Funding supports the elements of the outreach program listed above. We welcome you to learn more about this program and opportunities for corporate support and engagement. Should you choose to support this program through all or part of your sponsorship, you will have the opportunity to engage and brand your company through the events and activities listed above.*








A close-up, profile shot of a Black male graduate wearing a black mortarboard cap with an orange tassel and a black gown with a white shirt and a red and blue patterned stole. He is smiling and looking towards the right. The background is blurred with purple and red lights.

# ACADEMICS





Corporate support of our schools places you right at the forefront of our students' academic and career development within their discipline. Corporate sponsors provide valuable insight into the profession and have the opportunity to engage and recruit our best prepared engineering students.

We welcome you to learn more about our schools and the opportunities for corporate support and engagement. Should you choose to support the academic programs through all or part of your sponsorship, you will have the opportunity to engage and brand your company through the events and activities listed throughout.

# SCHOOL OF AEROSPACE & MECHANICAL ENGINEERING

Housed in historic Felgar Hall, the School of Aerospace and Mechanical Engineering provides experiential learning opportunities to educate and train students to successfully address contemporary challenges in the fields of aerospace and mechanical engineering. The undergraduate curricula emphasize laboratory, simulation and design experience in addition to theory. Students solve real-world problems in the degree-culminating capstone projects, many of which are sponsored by industry and government. Undergraduate students are prepared for the workforce through participation in internships in industry, research with faculty members and student competition teams.

AME faculty members pursue cutting-edge research in materials and manufacturing (additive manufacturing, shape-restoring polymers, 3d printing, nanocomposites), energy (building efficiency, fuel cells and alternate energy, emission reduction, batteries) and aerospace (autonomous systems, quantum computing, space trajectories) and mentor graduate students (M.S. and Ph.D.) in these areas.

## MAJORS

- Aerospace Engineering
- Mechanical Engineering

## STUDENT ORGANIZATIONS

- American Society of Mechanical Engineers
- American Institute of Aeronautics and Astronautics

## COMPETITION TEAMS

- Boomer Rocket Team
- OU Design Build Fly
- Sooner Off-Road
- Sooner Racing Team
- Sooner Rover Team

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Lab Equipment, **\$100,000+ per lab**
- Capstone, **\$7,500 per project**
- Department Support, **\$5,000**
- Student Scholarship, **\$2,000+ per student**
- Competition Teams, **\$2,000+ per team**
- Student Organization Support, **\$1,000+ per student organization**



# STEPHENSON SCHOOL OF BIOMEDICAL ENGINEERING

Housed in the state-of-the-art Gallogly Hall, the Stephenson School is committed to educating the next generation of biomedical engineers and advancing human health through cutting-edge research and innovation. Our programs provide students with a rigorous education and hands-on experience in world-class teaching and research facilities. Our students consistently excel on a national level, earning prestigious fellowship and scholarships at rates far above the national average.

Students are at the center of life-changing research, industry networking opportunities and entrepreneurship. The capstone design course gives students the opportunity to solve real-world healthcare problems from physicians and industry, develop creative solutions to those problems and design prototypes.

Through our Bioscience Industry Affiliates program, we actively engage with industry leaders, translating groundbreaking research into real-world applications and preparing students to lead in the biotechnology and medical technology industries.

## MAJORS

- Biomedical Engineering

## STUDENT ORGANIZATIONS

- Biomedical Engineering Society

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Lab Equipment, **\$100,000+ per lab**
- Capstone, **\$5,000 per project**
- Department Support, **\$5,000**
- Student Scholarship, **\$2,000+ per student**
- Student Organization Support, **\$1,000+ per student organization**

# SCHOOL OF CIVIL ENGINEERING & ENVIRONMENTAL SCIENCE

Faculty and students in Civil Engineering and Environmental Science are dedicated to solving the most pressing challenges in infrastructure, sustainability and environmental protection. Through cutting-edge research in a broad array of civil and environmental systems, promoting resilient and sustainable communities, and advancing technologies that impact the built and natural environment around us. Some research highlights include novel materials for durable infrastructure, use of nature-based solutions for sustainable civil systems, remote sensing hydrometeorology and new approaches for providing safe, reliable and resilient transportation systems. Students are developing hands-on skills directly transferable to real-world problem solving in their careers.

We are excited to be standing up the Transportation Pathways Alliance Workforce Development Program. This program will be a vertical within the Engineering Pathways Program, building on strong student support and launching student-employer partnerships to provide internship opportunities, interview preparation, recruitment and field trips. It is being launched in parallel with the expansion of the ODOT design squad into expanded, remodeled space. If you are interested in membership to the TPA, please contact Ron Smith at [RonaldSmith@ou.edu](mailto:RonaldSmith@ou.edu).

## MAJORS

- Architectural Engineering
- Civil Engineering
- Environmental Engineering
- Environmental Science

## MINORS

- Environmental Science
- Water and Sanitation for Health and Sustainable Development

## STUDENT ORGANIZATIONS

- American Society of Civil Engineers
- Environmental Science Student Association
- Sooners Without Borders
- Transportation Leadership Council

## COMPETITION TEAMS

- Concrete Canoe
- Steel Bridge

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Lab Equipment, **\$100,000+ per lab**
- Field Work Vehicles, **\$50,000**
- Department Support, **\$5,000+**
- Water Center, **\$5,000+**
- Competition Teams, **\$2,000+ per team**
- Student Organization Support, **\$1,000+ per student**
- Student Scholarship, **\$2,000+ per student organization**
- Faculty Development, **5,000+**
- Join Transportation Alliance, **\$5,000+**
- Capstone, **\$5,000 per project**



# SCHOOL OF COMPUTER SCIENCE

The School of Computer Science produces graduates with durable and adaptable computer science knowledge at the bachelor's, master's and doctoral levels, and feature an embedded certificate in artificial intelligence/machine learning, and capstone software engineering projects in conjunction with local, regional and national industry partners. CS students develop strong leadership skills through serving as ambassadors and peer tutors in support of the program and student body.

Our rapidly growing faculty lead fundamental and applied research in AI/ML, cybersecurity, software engineering, human-computer interaction, extended reality, high-performance computing, bioinformatics and many other areas. Our application domains include aerospace and defense, human health and the environment, addressing real-world challenges in command and control, streaming data, embedded software, weather prediction, transportation, medicine, sensor/network security and more.

## MAJORS

- Computer Science

## STUDENT ORGANIZATIONS

- AI/ML Cybersecurity
- Computer Science Student Board
- Game Developers Association
- International Collegiate Programming Contest

## COMPETITION TEAMS

- Competitive Robotics

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Capstone, **\$5,000 per project**
- Department Support, **\$5,000+**
- Student Scholarship, **\$2,000+ per student**
- Student Organization Support, **\$1,000+ per student organization**

# SCHOOL OF ELECTRICAL & COMPUTER ENGINEERING

The School of Electrical and Computer Engineering at the University of Oklahoma offers robust undergraduate and graduate programs designed to equip students with both foundational knowledge and hands-on experience in rapidly evolving fields. Our curriculum emphasizes experiential learning through state-of-the-art laboratories, industry-driven capstone projects and research opportunities that prepare graduates to excel in careers ranging from embedded systems, sensing and communications to renewable energy, quantum engineering, and artificial intelligence.

Our distinguished faculty are recognized for their research excellence in areas such as radar engineering, medical imaging and photonics, often collaborating with industry partners to solve real-world challenges. These partnerships not only inform our curriculum but also provide students with valuable internships, mentorship and career pathways. ECE students further enrich their experience through active involvement in national and local organizations, including the Institute of Electrical and Electronics Engineers, Eta Kappa Nu honor society and the OU Robotics Club, fostering leadership, networking and professional development.

## MAJORS

- Electrical Engineering
- Computer Engineering

## MINORS

- Electrical and Computer Engineering

## STUDENT ORGANIZATIONS

- Institute of Electrical and Electronics Engineering
- Eta Kappa Nu
- OU Robotics Club

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Lab Equipment, **\$60,000+ per lab**
- Lab Renovations, **\$100,000+ per lab**
- Capstone, **\$5,000 per project**
- Department Support, **\$5,000+**
- Student Scholarship, **\$2,000+ per student**
- Student Organization Support, **\$1,000+ per student organization**



# SCHOOL OF INDUSTRIAL & SYSTEMS ENGINEERING

The school of Industrial and Systems Engineering is committed to excellence in education, research and industry impact. Our dedicated faculty ensure our students receive top-tier education, offering hands-on experience in manufacturing, computing and human factors. This practical learning approach leads to industrial internships, nationally competitive capstone projects in collaboration with industry partners and successful career placements across diverse sectors. Join us to embark on a journey of academic excellence and real-world application.

ISE Faculty, funded through federal grants and contracts and backed by diverse industry sectors, spearhead cutting-edge research in smart manufacturing, resilient supply chain engineering, virtual/augmented reality and healthcare. Utilizing analytics, artificial intelligence and model based systems engineering, our faculty and graduate students tackle several real-world challenges.

## MAJORS

- Industrial and Engineering Systems
- Industrial and Systems Engineering Analytics
- Engineering Analytics

## STUDENT ORGANIZATIONS

- Alpha Pi Mu
- Institute for Operations Research and Management Sciences
- Institute of Industrial and Systems Engineering
- Human Factors & Ergonomics Society
- Society of Manufacturing Engineers

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Capstone, **\$5,000 per project**
- Department Support, **\$5,000+**
- Student Scholarship, **\$2,000+ per student**
- Student Organization Support, **\$1,000+ per student organization**

# SCHOOL OF SUSTAINABLE CHEMICAL, BIOLOGICAL & MATERIALS ENGINEERING

Our mission is to generate new knowledge in chemical engineering as well as to prepare our students for exceptional careers in industry, academia and government. Our program prepares students to perform as professionals, pursue advanced degrees and improve professional competencies. We offer research opportunities for students in the areas of biomedical, catalysis for energy and chemicals, environmental engineering, soft materials and interfacial science. Our students are leaders through their active engagement in student organizations and in our sponsored peer mentoring program.

Our faculty are experts in the areas of energy production and storage, advanced materials, treatment of disease and the use of data and modeling to understand physicochemical processes. Faculty and students make an impact globally and have received honors including the Presidential Early Career Award for Scientists and Engineers, the Royal Society Wolfson Visiting Fellowship and the Friedrich Wilhelm Bessel Research Award. Connections to industry are strong, with collaborations with numerous companies that support the work of individual faculty as well as the Institute for Applied Surfactant Research.

## MAJORS

- Chemical Engineering
- Chemical Engineering: Bioengineering
- Chemical Engineering: Sustainability

## STUDENT ORGANIZATIONS

- American Institute of Chemical Engineers
- Society of Polymer Engineers
- Chemical Engineering Graduate Students Association

## COMPETITION TEAMS

- Chem-E Car

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Lab Equipment, **\$100,000+ per lab**
- Department Support, **\$30,000+**
- Capstone, **\$5,000 per project**
- Student Scholarship, **\$2,000+ per student**
- Student Organization Support, **\$1,000+ per student organization**
- Competition Teams, **\$2,000+ per team**



# ENGINEERING PHYSICS

One of the oldest programs of its kind in the nation, the Engineering Physics program makes use of the extensive teaching and research facilities of both the Gallogly College of Engineering and the Homer L. Dodge Department of Physics and Astronomy in the Dodge Family College of Arts & Sciences.

This program provides an interdisciplinary environment where pure and applied science merges. The curriculum is designed to develop engineering skills and physics knowledge to produce engineers who excel in relating fundamental physical principles and practical engineering problems.

## MAJORS

- Engineering Physics

## STUDENT ORGANIZATIONS

- The Society of Physics Students

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Capstone, **\$5,000 per project**
- Department Support, **\$5,000+**
- Student Scholarship, **\$2,000+ per student**
- Student Organization Support, **\$1,000+ per student organization**

# OU POLYTECHNIC INSTITUTE

OU Polytechnic Institute has joined the Gallogly College of Engineering providing advanced and applied-technology-based-degrees for students seeking education focused on learning-by-doing. The OUPI educates students for high-demand careers in vital industries like telehealth, autonomous technology, cybersecurity and software engineering. The OU-Tulsa campus offers two-year degree completion programs and the OU-Norman campus offers four-year degree programs. Master's degrees are also available on the OU-Tulsa campus as well as online.

OUPI curriculum has been developed with input from industry partners. Faculty provide instruction and research on cutting-edge technology problems leveraging their extensive background in industry and government.

The OUPI serves as a workforce solution to address the increasing demand for credentialed workers in critical STEM fields.

## MAJORS

- Applied Artificial Intelligence
- Software Development & Integration
- Cybersecurity (Tulsa Campus only)
- Health Information Systems (Tulsa Campus only)

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Department Support, **\$5,000+**
- Student Scholarship, **\$2,000+ per student**

A close-up photograph of a person in a white lab coat and blue nitrile gloves. The person is holding a glass graduated cylinder with their right hand, which is in focus. The background is blurred, showing a laboratory environment with a red piece of equipment on the left and a rack of test tubes in the background. The lighting is bright and even.

**CENTERS, INSTITUTES, FAC**





# CILITIES & PROGRAMS

# ADVANCED MANUFACTURING

Led by Gallogly College of Engineering and the Oklahoma Aerospace and Defense Innovation Institute at OU, this facility is home to a range of advanced technologies, from robotics to 3D printing, and serves as a hub for student research and collaboration. The lab enables research and workforce development to support the growing defense industry in Oklahoma.

## UNDERGRADUATE CERTIFICATE

- Advanced Manufacturing in Aerospace and Mechanical Engineering
- Advanced Manufacturing in Industrial and Systems Engineering

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Program Support, **\$5,000+**

# MATERIALS ENGINEERING

Materials science, the study of the structure and behavior of materials, touches many industries. The program is a collaborative effort to increase the workforce of highly skilled experts in materials science and engineering. This doctoral option makes OU more competitive with other universities in the SEC and with aspirational peers in the AAU.

## MAJORS

- Ph.D. in Materials Engineering

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Program Support, **\$5,000+**
- Student Scholarship, **\$2,000+ per student organization**





# DATA SCIENCE AND ANALYTICS INSTITUTE

The Data Science and Analytics Institute is a multi-disciplinary program with faculty from Gallogly College and other colleges from across campus. Students develop skills to design and build tools to extract, assimilate and analyze data for use in understanding and predicting and enhancing future performance of enterprises.

This program offers a graduate certificate in Data Science and Analytics, a Master of Science in Data Science and Analytics and a Ph.D. in Data Science and Analytics with options to take classes onsite at the Norman campus and online. Current OU students can add an undergraduate certificate or complete an accelerated Bachelor of Science and Master of Science degree, a dual degree or an added graduate certificate. In addition to credit-based offerings, OU DSAI provides non-degree learning, development opportunities and certifications for working professionals, along with collaborative engagement with industry partners.

## MAJORS

- M.S. in Data Science and Analytics
- Ph.D. in Data Science and Analytics

## UNDERGRADUATE CERTIFICATE

- Data Science

## STUDENT ORGANIZATIONS

- Data Science Society

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Program Support, **\$5,000+**
- Student Scholarship, **\$2,000+ per student organization**

# BIOPROCESSING CORE FACILITY

This facility was collaboratively designed between Gallogly College of Engineering and its industry partners. It opened in the spring of 2024 at the OU Health Campus in Oklahoma City. It prepares advanced engineers to enter the workforce and bridges academia to industry and the local community to advance the biotech industry in the state of Oklahoma.

## THE VISION

- Provide workforce development for the biotech industry
- Practical instruction with hands-on training using advanced technologies
- Serve as a transition between academia and industry through shared research, training and partnerships
- OU Bioprocessing Certificate Program

## UNDERGRADUATE & GRADUATE CERTIFICATE

- Bioprocessing

## CORPORATE ENGAGEMENT OPPORTUNITIES

- Program Support, **\$5,000+**



**STRATEGIC GROWTH & RES**





SEARCH

# EXCELLENCE IN RESEARCH

The Gallogly College of Engineering seeks to double research productivity, anchored in our strategic growth priorities and has a bold plan to dramatically improve quality of life and stimulate economic development for our state, region, nation and world by solving engineering, scientific and technological challenges through leadership in discovery, innovation, education and engagement. We are focused on enhancing cross-disciplinary research initiatives in thematic areas to address challenges and issues with broad and future implications. Our faculty are actively working with industry and government partners on problems that drive societal and economic development.

## MATERIALS & MANUFACTURING

### ADVANCED MANUFACTURING

Additive technologies, machining processes and hybrid manufacturing are reshaping the future of manufacturing, with metal additive manufacturing leading industry growth, especially in aerospace and defense, where customization and speed are critical. The Sooner Advanced Manufacturing Lab, opened in 2023, is accelerating research in areas like engineered alloys, digital thread integration and non-destructive testing. Biomedical engineering is advancing rapidly in this space, using metallic and polymer for implants and surgical applications.

### POLYMERS & COATINGS

Materials engineering research at OU spans formulation, processing and characterization of polymers, composites and coatings for diverse applications. Research and education specializations in everything from metals and semiconductors to agricultural materials and biological tissues. Current research includes biodegradable polyesters, advanced epoxy coatings, additive manufacturing platforms and composite repair technologies, all driving innovations across industries.

## SENSING

### RADAR

The Advanced Radar Research Center at the University of Oklahoma is the largest academic radar program in the nation. The ARRC is known for its ability to contribute at many levels of the R&D process, including theory and concepts, simulation, prototypes, field testing and scientific discovery. The ARRC has always focused on developing cutting-edge radar technology for scientific discovery and has now expanded into many more applications of radar and applied electromagnetics.

### QUANTUM SENSING

Quantum photonics has the potential to revolutionize mid-infrared optoelectronics by pushing beyond the limits of current technology. Realizing this transformation requires significant investment in top-tier academic talent and advanced nanofabrication infrastructure. Research focuses include quantum-engineered semiconductor devices, mid-infrared photodetectors, breath analysis tools and novel photonic structures for chemical sensing.

## MEDICAL TECHNOLOGIES

### MEDICAL IMAGING

Gallogly College aims to be a global leader in engineering-driven medical imaging and clinical translation. With a strong focus on cancer imaging and image analysis, our interdisciplinary research supports precision medicine in disease prevention, screening and diagnosis. Key areas include tomosynthesis, MRI screening, machine learning, endoscopy, radiology and ultrasound technologies.



## **IMMUNO-ENGINEERING**

Immuno-engineering is a rapidly growing field that applies engineering principles to understand and modulate the immune system, driving innovative solutions for diseases like cancer, diabetes and infections. At OU, our program focuses on health disparities affecting underrepresented communities, including Native American populations, with research spanning immunotherapy, vaccine design, immuno-informatics and regenerative approaches.

## **BIOMANUFACTURING**

OU is contributing to the technical development of key aspects of biomanufacturing processes, including basic and applied research and technology commercialization. To support the efforts, we established a core biomanufacturing research facility with industry and local government partners. Areas of research include cell culture optimization, bioprocess chemical monitoring and predictive analytics, bioprocess controls and bioseparations. Our Bioprocessing Core Facility bridges academia and industry to advance the Biotech landscape through a wide range of research and development needs.

## **INFRASTRUCTURE**

### **WATER**

OU researchers are advancing sustainable, low-cost technologies to improve water access and security for vulnerable populations. By integrating water science with engineering, the program addresses climate resilience, water reuse, ecosystem services and public health. Key research areas include hydrometeorological modeling, wastewater-based epidemiology, stormwater management and passive treatment of mine-contaminated water.

### **TRANSPORTATION**

OU researchers are reimagining transportation through intelligent systems, advanced materials and adaptive design to meet evolving challenges like climate change, social equity and shifting commuting patterns. Collaborating across multiple colleges, the program focuses on unmanned systems, infrastructure resilience, climate-adaptive solutions and data-driven transportation analytics.

### **ENERGY**

OU researchers are advancing affordable green energy solutions through carbon-free hydrogen production, storage and use, paving the way for a just energy transition and regional economic growth. In parallel, they are designing a sustainable, connected society by integrating power systems, infrastructure and human behavior through advanced computational frameworks. Research spans hydrogen technologies, battery and solar innovations, and intelligent network management to harmonize energy supply and demand.

## **AI/ML/ DATA SCIENCE**

The ability to collect enormous quantities of data (Big Data) and increased computational power have revolutionized discovery in ways that were not possible just a decade ago. To extract knowledge from Big Data, we need systems architected, tools sharpened and techniques realized. Data science and artificial intelligence faculty are working on advances in the core domain of AI, including reliable and explainable AI, interactive AI, scalable analytics with AI and others.



## **THE UNIVERSITY OF OKLAHOMA FOUNDATION**

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