From structural design to process simulations... from robotics to fiber optics... Lamar University’s College of Engineering offers flagship programs with hands-on application that supply you the knowledge and deliver you the experience you need to get the job you want. The mission of the College of Engineering is to prepare you to become confident, capable, contributing professionals valued by employers.

Lamar University was the first junior college in Texas to become a four-year institution. In 1951, LU became a four-year institution called Lamar State College of Technology in order to focus on Engineering and Science.

**Degrees offered**

**Undergraduate**
- Bachelor of Science (BS) in six disciplines
  - Chemical
  - Civil
  - Electrical
  - Industrial
  - Industrial Technology
  - Mechanical

**Graduate**
- Master of Engineering (ME)
- Chemical
- Civil
- Electrical
- Industrial
- Mechanical
- Master of Science (MS)
- Environmental Engineering
- Environment studies
- Master of Engineering Management (MEM)
- Master of Science (MES)
- Doctor of Engineering (DE)
- Chemical
- Civil
- Electrical
- Industrial
- Mechanical
- Doctor of Philosophy (Ph.D.) in Chemical Engineering

**Accreditation**

The chemical, civil, electrical, industrial and mechanical programs are accredited by the Engineering Accreditation Commission of ABET, abet.org
Lamar University is a Carnegie Doctoral Research University.

The LU Cardinal Racing Baja Team of 10 mechanical engineering seniors from towns throughout Southeast Texas (Silsbee, Mont Belvieu, League City, Fannett, Beaumont, Nederland, Kingwood, and Orange) won the 2013 SAE Baja Sled Pull sponsored by Cummins, completing the entire 774 feet pull distance in fewer than 11 seconds for both runs. The LU team bested student teams from Wisconsin, Kansas State, Rochester Institute of Technology, Michigan Tech and Virginia Tech.

LU was ranked 11th out of 2,000 engineering schools for return on investment by PayScale, Inc., for engineering majors, just behind MIT. LU was the only Texas school on the list.

Students gain experience in more than 20 engineering-focused student organizations.

Company founders, plant managers and CEOs—the majority of whom are successful alumni—contribute time and knowledge to keep academic programs rigorous and relevant, so that graduates are equipped with immediately marketable skills.

The College of Engineering is one of the top producers of chemical engineering master’s degree graduates in the U.S.
Our program in chemical engineering at Lamar University combines both theoretical and practical coursework that is strongly science and math oriented so you’re prepared to be a professional the minute you enter the workforce.

Core applications
- unit operations
- chemical reaction engineering
- process control and design
- momentum, heat and mass transfer
- modeling and simulation
- thermodynamics
- plant design

Hands-on experience
In the Unit Operation Laboratory, students explore various types of industrial units including distillation, absorption and cooling towers as well as heat exchangers and gas separation membrane units. Computer software packages used by industry allow students to design chemical plants and simulate plant operations.

Chemical Engineering Ph.D. student M.A. Kader Rasel won the UniSim® Design Challenge at the 2013 Honeywell Users Group HUG Americas conference. Rasel is studying how dynamic simulation can create safer and more reliable chemical plant operations. The competition challenges students to solve real-world problems facing industrial processing plants.

Recently, Beaumont was voted 2nd Best Place for chemical engineers to live.

Career-oriented organizations
American Institute of Chemical Engineers (AIChE)
Omega Chi Epsilon chemical engineering honor society
Tau Beta Pi national engineering honor society

Accreditation
Engineering Accreditation Commission of ABET (abet.org)
Lamar is a place for everyone seeking not only to gain an education, but to gain experiences in life. During my time at Lamar, I engaged in various activities that helped me become acquainted with the multiple cultures present on campus.

- Friends of India Association
- League of International Leaders
- Engineers Without Borders
- Honors Student Association
- American Institute of Chemical Engineers

Degrees offered
Bachelor of Science in Chemical Engineering (BS)
Master of Engineering (ME)
Master of Engineering Science (MES)
Doctor of Engineering (DE)
Doctor of Philosophy (PhD)

Who hires our students?
ALCOA
Bayer Corporation
Chevron
Dow Chemical Company
DuPont
Eastman Chemical Company
Orion Engineered Carbons
ENGlobal Corporation
ExxonMobil
Goodyear
Honeywell
Huntsman Corporation
Motiva Enterprises
Nexus
Total
and many more...
CHRISTIAN OCANAS

- Civil Engineering
  Houston, TX

I choose Lamar engineering because it has the feel of a small town school but with the vast opportunities of a big college.

- American Society of Civil Engineers

Accreditation
Engineering Accreditation Commission ABET abet.org
Our program at Lamar University prepares you to:
- meet the challenges of your future career in all phases of the field
- accept managerial and technical roles that require scientific and engineering backgrounds

Program foundation areas
- geo-technical
- structural
- hydraulic
- environmental
- surveying
- construction engineering

First-class Labs
- Hydraulics laboratory
- Surveying, environmental geotechnical and structural laboratories
- Computer laboratory includes computer-aided design (CAD) and geographic information systems (GIS)
- Composite laboratory in the Nano-Composite Testing Lab

Who hires our students?
Alan Plummer Associates Inc.
Arceneaux and Gates Consulting Engineering
BP International
Brinkley and Barfield Inc.
Carrol & Blackman Inc.
ENGlobal
ExxonMobil
French Engineering Inc.
Freese and Nichols Inc.
Houston Department of Public Works
Neches Engineers
Schaumburg and Polk Consulting Engineers
Texas Department of Transportation
US Army Corps of Engineers
and many more...
Our program in electrical engineering is both challenging and rewarding, and our graduates have gone on to distinguish themselves in the many different sub-disciplines of electrical engineering.

Foundation areas
- circuits
- electronics
- computers
- signals and systems

Upon graduation, you will
- be prepared for a successful and productive career
- be technically knowledgeable and competent
- know how to contribute as part of a team through effective communication
- be inspired to pursue life-long learning in engineering fields

During the last year of the bachelor’s degree program, students may take dual-listed graduate courses as electives to further develop depth in their program of study.

Student Design Competition Team
Phillip Huff, Beaumont; Alan Cleveland and Stanley Richardson-Whyte, Missouri City; and Chase Patten, Port Arthur, won 2nd Place for design of a lightweight and portable robotic device for removal and replacement of residential kilowatt-hour meters to help mitigate the danger of potential arc flash. LUEE teams have won 2nd Place three times and first place once since the inception of this competition four years ago.

Degrees offered
- Bachelor of Science in Electrical Engineering (BS)
- Master of Engineering (ME)
- Master of Engineering Science (MES)
- Doctor of Engineering (DE)

Institute of Electrical and Electronics Engineers Region 5 Conference Student Competition
Bryan Deagle, Lumberton....won 1st Place in the Student Paper Competition for his research, “An Overview of Ocular Artifact Removal in Electroencephalograms.” This is the third time this decade a LUEE student has won this award.
Career-oriented organizations
Institute of Electrical and Electronic Engineers (IEEE)
Eta Kappa Nu electrical engineering honor society

TYLER MACKEY
Electrical Engineering
Vidor, TX

Lamar is an amazing school, and through one year at the College of Engineering, I have been able to expand the boundaries of my mind, develop professional connections that will last a lifetime, and, most of all, gain lifelong experience that will benefit myself and everyone that I can share it with.

- Institute of Electrical and Electronic Engineers
- Honors Student Association

Student Robotics Competition Team:
Tyler Rogers and Johnson Royer, of Beaumont; David Stone, Silsbee; and Spencer Wigginton, Lumberton....won 5th Place for a fully autonomous robot capable of navigating a simulated forest to collect soil samples while being able to traverse relatively large obstacles and return the samples in a specified time frame.

Accreditation
Engineering Accreditation Commission ABET abet.org
Twelve research centers at Lamar University operate under the Texas Center for Technology Incubation (TCTI), an umbrella organization that includes:

- Aldredge Air Quality Modeling Center
- Center of Environmental Sustainability
- Center for Fuel Cells and Energy Systems
- Center for Transportation Ports and Waterways
- Center of Process and Information Technology
- Green Composite Research Center
- Gulf Coast Hazardous Substance Research Center
- Renewable Energy Center
- Lamar Center for Innovation and Commercialization
- Materials Instrumentation Center
- Texas Air Research Center
- Texas Hazardous Waste Research Center

Student-Faculty Ratio: 1 to 25

In the last seven years, 50% of all incoming Mirabeau Scholars have been awarded to those seeking engineering degrees.
Lamar University’s Office for Undergraduate Research (OUR) creates a culture of innovation. Engineering undergraduate students are encouraged to participate in grant-funded opportunities with LU faculty.

Lamar University is named in the Top 10 engineering schools for international students.

—USNews.com
Kylie Robinett
- Industrial Engineering
Heath, TX

Lamar is like home, your professors will know you by name and are always willing to take time to help ensure that you succeed.

- College of Engineering Ambassadors
- Institute of Industrial Engineers
- Alpha Omega Epsilon Engineering and Technical Science Sorority
- Employed by Cardinal Village, Lamar University's residence halls

Career-oriented organizations
Institute of Industrial Engineers
Alpha Pi Mu systems engineering honor society
Tau Beta Pi national engineering honor society
Human Factors and Ergonomics Society
American Society of Safety Engineers
The Institute for Management Science
Our program prepares you to
• meet the challenges of emerging technologies in a global arena
• use innovative approaches in designing and developing systems that integrate people, equipment, materials, energy and information

Foundation areas
• management systems
• human factors and ergonomics
• decision making
• economics
• manufacturing
• quality control and logistics
• safety
• system and work design

Who hires our students?
The Boeing Co.
Cameron International Corp.
DuPont
Zachry Corp.
TenarisHydrid
LyondellBasell Industries
Schlumberger
and many more...

LABS
• Human Factors and Ergonomics Laboratory
• Computer laboratory includes computer-aided design (CAD) and ergonomic analysis packages
• Haptics Laboratory

Degrees offered
Bachelor of Science in Industrial Engineering (BS)
Bachelor of Science in Industrial Engineering (BS) and Master of Business Administration (MBA) five-year program
Master of Engineering (ME)
Master of Engineering Management (MEM)
Master of Engineering Science (MES)
Doctor of Engineering (DE)
Our program prepares you to be a successful, practicing mechanical engineer capable of accepting increasing professional responsibilities within three to five years of employment. You learn and grow by solving problems.

Mechanical engineering industries
- automotive
- aerospace
- electronics
- chemical products
- petroleum
- textiles
- thermal and mechanical design
- industrial equipment
- heating and air conditioning systems

Team Astro Cardinals competed at the Texas Space Grant Consortium Design Challenge Showcase to **WIN** Top Design Team Award, Top Poster Award and Top Presentation Award:
Seniors Philip Daleo, Beaumont; David Robinson, Houston; Don Petry, Beaumont; Mauro Hernandez, Liberty.

Who hires our students?
- City of Houston
- DuPont
- Entergy Corp.
- Equistar Chemicals
- ExxonMobil
- Gerdau
- Motiva Enterprises
- Sanden
- International Inc.
- Enterprise Products Partners (Teppco)
- Trane
- and many more...

Career-oriented organizations
- American Society of Mechanical Engineers (ASME)
- Pi Tau Sigma mechanical engineering honor society
- Tau Beta Pi national engineering honor society
Throughout your engineering education at Lamar you form lasting relationships with your fellow classmates that will last long after graduation.

- Lamar University College of Engineering Ambassadors
- National Society of Black Engineers
- American Society of Mechanical Engineers
- Alpha Phi Alpha Fraternity Inc.

Degrees offered
- Bachelor of Science in Mechanical Engineering (BS)
- Master of Engineering (ME)
- Master of Engineering Science (MES)
- Doctor of Engineering (DE)
The main goal of the cooperative education and internship program is to combine academic study with practical experience to produce skilled university graduates. After completing your first year of the engineering or industrial technology curriculum, you may participate in the co-op program, which allows you to alternate semesters of college study with periods of paid on-the-job training related to your major.

- The College of Engineering’s Co-op Office assists co-op students to obtain paid cooperative education/internship opportunities in all five of the engineering disciplines at Lamar University: Civil, Chemical, Electrical, Industrial and Mechanical.

- Pay for LU students participating in a **CO-OP** and Internship averages **$25-$30** an hour.
Benefits

- Employers prefer to hire experienced people.
- Explore and clarify your career goals.
- You can apply what you’ve learned.
- The experience you gain makes you a more valuable contributor on your first job.
- Earnings from a co-op job can pay for a big part of your college expenses.
- The cost will be repaid many times over in better initial job offers after graduation.
- The experience helps you perform better in your first job after graduation.

Students who choose to co-op are likely to be $30,000 to $60,000 better off on their graduation day than those that don’t.*

60% of students who participate in an internship or co-op are offered a full-time position upon graduation.

More than 50 companies actively participate in recruiting LU students each year.

*Forbes.com
Focus beyond campus

We look beyond campus boundaries for opportunities to provide solutions to challenges—and scholarships can help you with yours.

Scholarship assistance

Endowed scholarships are valued at more than $4 million. Many award up to $18,000 to eligible students toward four years of study. Apply today at lamar.edu/engineering.

Freshman scholarships

Engineering Excellence Scholarship
Amount
$4,000/year = $2,000 Room and $2,000 Tuition
($16,000 total for four years)
Criteria
SAT: 1130 (Math + Verbal)
AND 600+ (Math)
ACT: 25 (Composite) AND 26+ (Math)
High School Rank: Top 25%

Cardinal Scholarship
Amount
$6,000/year = $3,000 Room and $3,000 Tuition
($24,000 total for four years)
Criteria
SAT: 1250+ (Math + Verbal)
ACT: 28+ (Composite)
High School Rank: Top 25%

Deadline to apply for scholarships is February 1.

The Mirabeau Scholarship is Lamar University’s full academic scholarship. You can apply for this prestigious scholarship if you achieve at least a 1250 SAT (math and critical reading) or 28 ACT (composite). Students must be fully admitted to the university in order to be considered. BeACardinal.com/payingforcollege
More than 25% of undergraduate students receive at least one scholarship.

Nearly 100 entering freshman Mirabeau Scholars joined 45 continuing Mirabeau Scholars—making the Class of 2013 the finest freshman class in decades as a result of strengthened admission requirements and larger numbers of top-tier students.

College of Engineering supporters gave $31M to the Investing in the Future Comprehensive Campaign.

The employment rate of graduates ranks among the top in Texas.
Contact us

College of Engineering
Outreach and Student Services

collengr@lamar.edu
(409) 880-7870

Lamar.edu/Engineering

Lamar University is an equal opportunity/affirmative action educational institution.