

# COLLEGE OF ENGINEERING

University of Louisiana at Lafayette

HOME OF THE RAGIN' CAJUNS

## ABOUT US

The College of Engineering educates future engineers to solve tomorrow's challenges, offering flexible degree paths with concentrations and specialty minors for unlimited career possibilities. With an unshakable focus on the future, we continually update academic programs to advance student skills. Beyond robust academics, the College emphasizes student success and an enriched college experience through the Engineering Center of Excellence (ECoE), where education meets innovation, fostering leadership, entrepreneurship, and innovation.

*The  
only*

*bachelor's degree in chemical engineering with a bioengineering concentration in Louisiana.*

*bachelor's degree in engineering & technology management in Louisiana.*

*bachelor's degree in petroleum engineering with a smart oilfield concentration in the U.S.*

*bachelor's degree in engineering & technology management with a manufacturing management concentration in Louisiana.*

OUR ASPIRING ENGINEERS ARE LEADERS ON EARTH AND IN SPACE

**1<sup>st</sup> Place**

International RoboBoat Competition:  
*Technical Design*  
Ragin' Cajuns RoboBoat Team

ChemE-Sports Competition AIChE  
*Chemical Engineering*

The American Society of Civil Engineers  
Gulf Coast Regional Student Conference:  
*Construction*  
*Civil Engineering*

**Grand  
CHAMPIONS**

2023 Fluid Power Vehicle Challenge

*Mechanical engineering students designed a fluid-powered vehicle that's so innovative it holds the title as nation's best.*

**TOP 10**

Formula SAE Competition  
Most Economical Car  
Ragin' Cajuns Racing Team

**1<sup>OF</sup> Few  
in the nation**

CAPE Satellite Team  
launched its third satellite in  
collaboration with NASA.

**2<sup>nd</sup>  
PLACE**

SPE Petrobowl Competition  
*Petroleum Engineering*



# COLLEGE OF ENGINEERING



## CHEMICAL ENGINEERING

Bioengineering, Energy, Biofuels, Materials, Bioprocessing, Biomedical, Chemical Production and Environmental

[chemical.louisiana.edu](http://chemical.louisiana.edu)

Concentration offered:  
Bioengineering



## ENGINEERING & TECHNOLOGY MANAGEMENT

Oilfield, Power Systems, Construction Management, Manufacturing Management, Project Management, Robotics, Automation and Controls, Safety, Chemical Production and Computer Aided Drafting

[engineeringtech.louisiana.edu](http://engineeringtech.louisiana.edu)

Concentrations offered:  
Construction Management,  
Manufacturing Management



## CIVIL & ENVIRONMENTAL ENGINEERING

Coastal, Environmental, Water Management, Transportation, Structures, Construction and Geospatial

[civil.louisiana.edu](http://civil.louisiana.edu)

Concentrations offered:  
Structural Engineering & Coastal Hazards,  
Water Resources &  
Environmental Engineering



## MECHANICAL ENGINEERING

Energy, Manufacturing, Solar Energy, Device Development, Advanced Materials and Biomedical

[mechanical.louisiana.edu](http://mechanical.louisiana.edu)

Concentrations offered:  
Autonomous & Robotic Systems,  
Sustainable Energy Systems

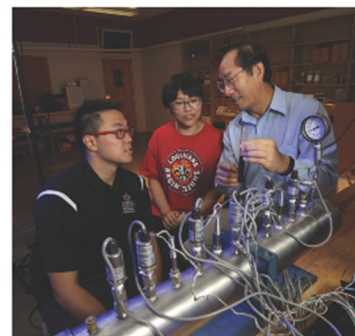


## ELECTRICAL & COMPUTER ENGINEERING

Sensors, Power, Alternative Energy, Computers, Telecommunications, Computer Engineering, Controls and Robotics

[electrical.louisiana.edu](http://electrical.louisiana.edu)

Concentrations offered:  
Computer Engineering,  
Power & Sustainable Energy,  
Secure Smart Systems



## PETROLEUM ENGINEERING

Exploration, Well Development, Environmental, Simulation Controls and Enhanced Recovery

[petroleum.louisiana.edu](http://petroleum.louisiana.edu)

Concentration offered:  
Smart Oilfield



University of Louisiana at Lafayette

# COLLEGE OF ENGINEERING

EDUCATING ENGINEERS TO SOLVE TOMORROW'S CHALLENGES

Bachelor's Degree in Chemical Engineering with

## BIOENGINEERING CONCENTRATION

Louisiana's only Bioengineering concentration blends courses and labs that focus on subjects such as biomaterials and biomedical engineering, biomechanics, biomass conversion, human anatomy and physiology, pharmaceutical operations, and biochemistry. It provides students with expertise that will help them professionally in creating medical, diagnostic and therapeutic devices, and developing pharmaceutical products, food supplements and preservatives.

[chemical.louisiana.edu](http://chemical.louisiana.edu)

Bachelor's Degree in Civil Engineering with

## STRUCTURAL ENGINEERING & COASTAL HAZARDS CONCENTRATION

The Structural Engineering & Coastal Hazards concentration prepares civil engineering students to design and build resilient infrastructure—such as buildings and bridges—that can withstand forces like wind, waves, and storm surges. Through a blend of coursework and hands-on labs in structural analysis and design, wind and flood engineering, coastal hydrology, bridge design, and storm surge modeling, students gain the expertise needed to address the impacts of extreme weather and protect coastal communities.

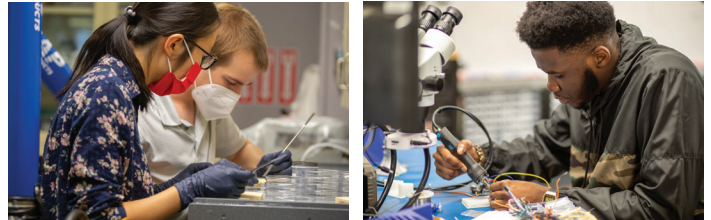
[civil.louisiana.edu](http://civil.louisiana.edu)

Bachelor's Degree in Civil Engineering with

## WATER RESOURCES & ENVIRONMENTAL ENGINEERING CONCENTRATION

The Water Resources & Environmental Engineering concentration offers professional development opportunities that focus on subjects such as hydrologic and hydraulic modeling, flood mitigation, coastal hydrology, water and wastewater treatment, solid and hazardous waste management, and environmental assessment. It prepares students for careers that address the needs for a water-resilient and environmentally sustainable society.

[civil.louisiana.edu](http://civil.louisiana.edu)



Bachelor's Degree in Electrical Engineering with

## COMPUTER ENGINEERING CONCENTRATION

The Computer Engineering concentration provides special training in the analysis and design of the hardware and software aspects of computers and computer-based systems. The concentration's areas of study include computer architecture and hardware design, computer networks and communications, hardware-software co-design for robotics, drones, and autonomous cars.

[electrical.louisiana.edu](http://electrical.louisiana.edu)

Bachelor's Degree in Electrical Engineering with

## POWER & SUSTAINABLE ENERGY CONCENTRATION

The Power & Sustainable Energy concentration focuses on electric energy conversion and integration, including renewable energies, power systems and control, smart grids and electric vehicles. Emerging trends in grid modernization and developing sustainable energies have increased the demand for experts nationwide in fields related to energy technologies.

[electrical.louisiana.edu](http://electrical.louisiana.edu)

Bachelor's Degree in Electrical Engineering with

## SECURE SMART SYSTEMS CONCENTRATION

The Secure Smart Systems concentration prepares students to engage in the new revolution in smart systems, system security and embedded systems. Areas of studies include cyber-physical systems, embedded systems, machine learning, Internet of Things, human-computer interface, cybersecurity and control systems. As the expansion of smart technologies continues — and as security challenges arise as a result of that expansion — employment opportunities for graduates in this field are increasing as well.

[electrical.louisiana.edu](http://electrical.louisiana.edu)

Bachelor's Degree in Engineering & Technology Management with

## **CONSTRUCTION MANAGEMENT CONCENTRATION**

The Construction Management concentration equips students with the skills and knowledge needed to manage construction projects from planning to completion. Through a blend of courses and labs in construction methods and materials, cost estimating and budgeting, building information modeling (BIM), project management, planning and control, construction safety, and workforce leadership, students gain practical experience and business insight —with a business minor embedded in the curriculum. This concentration prepares graduates for a wide range of roles in the construction industry, enabling them to lead teams, improve jobsite efficiency, and navigate the demands of a dynamic, fast-paced field.

[engineeringtech.louisiana.edu](http://engineeringtech.louisiana.edu)

Bachelor's Degree in Engineering & Technology Management with

## **MANUFACTURING MANAGEMENT CONCENTRATION**

Louisiana's only Manufacturing Management concentration prepares students for leadership roles in modern manufacturing by combining engineering, technology, and business. The curriculum includes hands-on courses and labs in lean manufacturing, smart automation, applied mechatronics, robotics, supply chain strategy, quality systems, CNC operations, and project management—along with an embedded business minor. Students gain the skills to streamline operations, integrate advanced technologies, and drive innovation in high-performance manufacturing.

[engineeringtech.louisiana.edu](http://engineeringtech.louisiana.edu)

Bachelor's Degree in Mechanical Engineering with

## **AUTONOMOUS & ROBOTIC SYSTEMS CONCENTRATION**

The Autonomous & Robotic Systems concentration provides students with the foundation and skills they'll need to successfully integrate autonomous and robotic systems with the human workforce. The concentration blends courses and labs that focus on subjects such as engineering design, mechatronics, kinematics of machines, control systems, robotic technologies, applied machine learning, the Internet of Things, and robot dynamics and control.

[mechanical.louisiana.edu](http://mechanical.louisiana.edu)

Bachelor's Degree in Mechanical Engineering with

## **SUSTAINABLE ENERGY SYSTEMS CONCENTRATION**

The Sustainable Energy Systems concentration provides students with exposure to sustainability principles in power generation through courses in solar energy and sustainable energy consumption in the design of the built environment. Subjects include renewable energy, advanced engineering methods, energy systems and sustainability, solar energy system design, modeling and simulation of solar energy, energy conversion and environmental engineering.

[mechanical.louisiana.edu](http://mechanical.louisiana.edu)

Bachelor's Degree in Petroleum Engineering with

## **SMART OILFIELD CONCENTRATION**

The nation's only Smart Oilfield concentration combines coursework in machine learning, the Internet of Things (IoT), coding, statistics, computational applications, and data modeling. Students gain hands-on experience with specialized software to develop skills in automation, predictive analytics, safety, environmental responsibility, and the economic viability of oil and gas operations. In addition, the Petroleum Engineering department offers the only academic program in the country that provides education and training aligned with the International Association of Drilling Contractors (IADC) WellSharp Certification.

[petroleum.louisiana.edu](http://petroleum.louisiana.edu)



**CONTACT US**

[engineering.louisiana.edu](http://engineering.louisiana.edu)



UNIVERSITY of  
**LOUISIANA**  
LA FAYETTE\*

**College of  
Engineering**



## Engineering

### SPECIALTY MINORS

Specialty minors expand students' knowledge in focused areas, enhancing their expertise, career readiness, and job marketability after graduation.

- Biomedical Engineering
- Bioprocess Engineering
- Bioprocess Technology
- Coastal Engineering
- Environmental Engineering
- Manufacturing
- Materials Engineering
- Pre-MBA
- Renewable Energy
- Technology Commercialization

### ABM PROGRAM (4 + 1)

The Accelerated Bachelor's/Master's Program (ABM) is available across all majors, allowing qualified students to earn both degrees more quickly and cost-effectively, with up to nine graduate credit hours counting toward both undergraduate and graduate requirements.

### GRADUATE PROGRAMS

- Ph.D. in each engineering department (Systems emphasis)
- M.S. in each engineering department and engineering management (M.S. in Engineering)
- M.S. in Engineering & Technology Management (Face-to-face and fully online options)



### STUDENT ENHANCEMENT PROGRAMS

The college offers student enhancement programs that help students excel in areas outside of the usual engineering curriculum.

#### Undergraduate Research Apprenticeship Program (URAP)

Outstanding students work as undergraduate research assistants as part of scholarship packages. Each student is assigned a mentor and is trained to assist in ongoing research in the College of Engineering.

#### Designing Leaders

The Designing Leaders Program is a lecture series held every spring semester for a select group of students. Its purpose is to provide participants opportunities to learn skills from some of the community's most influential and successful leaders.

#### Engineering Ambassadors

This program is designed to develop students through volunteer outreach and service activities. These students represent their departments, the College of Engineering, and the University when volunteering for academic and recruiting events.

#### Career Development Workshop Series

This program offers a variety of career development opportunities throughout the year to assist students in career exploration, planning and preparation. It is part of a broader plan to increase student success and career readiness through peer mentoring, tutoring, supplemental instruction and other offerings.

### ENGINEERING LIVING LEARNING COMMUNITY

The Engineering Living Learning Community is a residential community for freshmen with a special emphasis on engineering. Participants have the opportunity to learn about their new home, meet friends who are also

engineering majors, and enjoy special events designed specifically for their LLC. Here, students can explore career options, learn about available resources, and find inspiration for becoming an engineer.

[ENGINEERING.LOUISIANA.EDU](http://ENGINEERING.LOUISIANA.EDU)



UNIVERSITY of  
**LOUISIANA**  
L A F A Y E T T E®

**Engineering**



**CONTACT US**

**LEARN MORE**

[engineering.louisiana.edu](http://engineering.louisiana.edu)

**FOLLOW US**



@ULengineering

**ASK A QUESTION**

[engineering@louisiana.edu](mailto:engineering@louisiana.edu)  
337.482.6685