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, pharmaceutical operations, biochemistry, and human anatomy and physiology. 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

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







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 codesign for robotics, drones, and autonomous cars.

electrical.louisiana.edu

Bachelor's Degree in Electrical Engineering with

POWER AND SUSTAINABLE ENERGY CONCENTRATION

The power and sustainable energy concentration focuses on electric energy conversion and integration, including renewable energies, smart grids, electric vehicles and power system operation and control. 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

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.

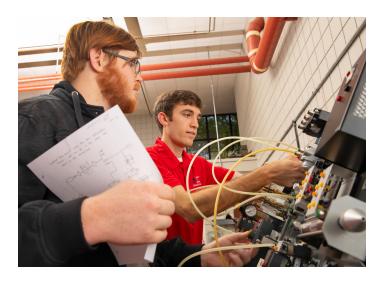
electrical.louisiana.edu

BACHELOR'S DEGREE IN ENGINEERING AND TECHNOLOGY MANAGEMENT

The engineering and technology management degree program in the Department of Engineering Technology prepares students to meet contemporary industry challenges. Students learn the principles of management, leadership, physical sciences, technology of industry and basic engineering to solve problems involving industrial products, services, materials and processes, and the supervision and management of facilities and personnel.

Focus areas in construction management, automation and controls, chemical industry technology and industrial safety are available. In addition, a minor in business is embedded in the curriculum and includes courses in accounting, business management, business law, marketing and finance.

engineeringtech.louisiana.edu



Bachelor's Degree in Mechanical Engineering with

AUTONOMOUS AND ROBOTIC SYSTEMS CONCENTRATION

The autonomous and 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, Internet of Things, and robot dynamics and control.

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

Bachelor's Degree in Petroleum Engineering with

SMART OILFIELD CONCENTRATION

The Department of Petroleum Engineering, the only academic program in the nation providing education and training for students to demonstrate compliance with the International Association of Drilling Contractors Well Sharp Certification, now offers the smart oilfield concentration. This concentration blends courses in machine learning, Internet of Things, coding, statistics, computational applications and data modeling. It integrates specialized software to provide training in automation, predictive capabilities, safety, environmental sustainability and economic feasibility of oil and gas exploration operations.

petroleum.louisiana.edu



