

WELCOME TO THE SCHOOL OF ENGINEERING AT LAU



The school of Engineering at LAU offers 7 undergraduate majors

- Civil engineering (ABET accredited)
- Mechanical engineering (ABET accredited)
- Industrial engineering (ABET accredited)
- Computer engineering (ABET accredited)
- Electrical engineering (ABET accredited)
- Petroleum engineering
- Mechatronics engineering



What can I do with a major in CIVIL ENGINEERING?

Civil engineers plan, design and direct the construction and maintenance of roads, buildings, dams, bridges, pollution control facilities, waste water systems, airports, power facilities.



What can I do with a major in CIVIL ENGINEERING?

- Some civil engineers jobs are primarily indoors, but many involve frequent visits to project sites during both the design and the construction phases.
- It is a broad profession and is divided into various branches
- Many civil engineering graduates go on to take leadership positions in established companies, or start their own.



What can I do with a major in CIVIL ENGINEERING?

Structural Engineering: construction of civil engineering projects

Transportation Engineering: provide fast, efficient and safe transportation facilities

Environmental Engineering: focus on engineering works that clean and protect the environment

Geotechnical Engineering: focus on soil, rock and underground water and their relation to the design and operation of civil works

Water resources Engineering: work to provide safe drinking water and flood control works



What can I do with a major in MECHANICAL ENGINEERING?

- Mechanical engineering focuses on the design, development and understanding of mechanical things.
- Mechanical Engineers design and develop everything you think of as a machine. Many mechanical engineers specialize in areas such as manufacturing, robotics, automotive, power using machines such as refrigeration and air conditioning.



What can I do with a major in MECHANICAL ENGINEERING?

- Along with designing, mechanical engineers take part in the development and testing of products. They troubleshoot any problems with designs and make improvements to develop an efficient and profitable final product
- Due to this, there are employment opportunities for mechanical engineers in a wide range of sectors, including: manufacturing, power, construction and medical



What can I do with a major in INDUSTRIAL ENGINEERING?

- Industrial engineering is a branch of engineering concerned with the development, improvement, implementation and evaluation of integrated systems of people, money, knowledge, information, equipment, energy, material and process



What can I do with a major in INDUSTRIAL ENGINEERING?

- Industrial engineers design methods, not machinery.
- They are primarily concerned with increasing productivity through the management of people, methods of business organization, and technology
- Most industrial engineers are employed in manufacturing industries, shipping and logistics businesses, healthcare organizations, airlines and consulting firms



What can I do with a major in ELECTRICAL ENGINEERING?

- Electrical Engineers design, develop, test, and supervise the manufacture of electrical equipment and devices such as broadcast and communication systems, electric motors, machinery controls, lighting and wiring in buildings, automobiles



What can I do with a major in ELECTRICAL ENGINEERING?

Electrical Engineering provides you with a variety of career paths:

- **Communications:** Design transmission systems and switching centers. Develop, manufacture, market and service communication products.
- **Control systems:** Analyze and design automatic regulators, guidance systems, numerical control of machines, computer control of industrial processes, and robotics to identify system stability, system performance criteria, and optimization.
- **Electronics:** Design circuits, components, equipment, and computer programs
- **Power:** power generation, transmission, distribution, application and converting static forms of energy, such as water power, solar power, and chemical agents, into usable electric power



What can I do with a major in COMPUTER ENGINEERING?

- Computer engineers embed computers in other machines and systems, build networks to transfer data, and develop ways to make computers, faster, smaller, and more capable.
- They specialize in areas like digital systems, operating systems, computer networks, software, etc.



What can I do with a major in COMPUTER ENGINEERING?

- Computer engineers have the option of moving into hardware or software positions, or blending the two.
- Typical industries hiring computer engineers, include financial services, computer manufacturers, chemical companies, consulting, transportation, manufacturing, and consumer goods. Computer engineers are equally successful in large multinational firms and small startups.



What can I do with a major in PETROLEUM ENGINEERING?

Petroleum engineering is the field of engineering that deals with the exploration, extraction, and production of oil and gas.

Petroleum engineers develop the safest and most efficient methods of bringing those resources to the surface



What can I do with a major in PETROLEUM ENGINEERING?

People who specialize in petroleum engineering often work in the oil industry as:

Drilling Engineers assist in designing specific machinery used when extracting gas or oil from under the surface of the earth

Seismic engineers travel to mining sites to ensure the safety of the sites and create safety programs

Production engineers take over wells after drilling is completed. They typically monitor wells' oil and gas production

Reservoir engineers estimate the size of a reservoir, then determine how much oil and gas reserves are in the reservoir and finally work out how to maximize the economic return from extracting them.



What can I do with a major in MECHATRONICS ENGINEERING?

- Mechatronics is a field of engineering that focuses on the design and production of automated equipment. It is a blend of mechanical engineering, electrical engineering, computer control and information technology.
- Mechatronic systems can be found in most industrial and commercial products. Mechatronics Engineers design and develop automation solutions for manufacturing, automotive, aerospace, and automation companies.



What can I do with a major in MECHATRONICS ENGINEERING?

- Mechatronic engineers work in various industries including the mechanical design, aerospace, biomedical devices, manufacturing, electronics packaging, mining machinery and material handling, building automation and robotics industry.



CAREERS

The following is a partial list of companies who have hired LAU graduates within the last five years:

CCC, Khatib & Alami, ERGA, Dar Al Handasah, Nesma & Partners, Petrofac, MIDMAC, MAN Enterprise, Abniah, Booz & Co, Element^n, EmC2, Indevco Group, Saudi Bin Laden Group, Murex, Matelec, Liban Cables, Debbas, ThussenKrupp Elevators, Mitsulift, Ericsson, Nokia Siemens Network , Cisco Systems

