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# Majors

## Applied Science & Technology

The Applied Science and Technology Bachelor of Arts program is designed to help students pursue their goals in a world that relies more and more upon science and technology. It is a broad-based engineering-oriented degree program with a breadth of liberal arts for students who intend to make their careers in fields allied to science, engineering, and technology and/or continue their education toward professional careers in law, medicine, business, teaching, or the media.
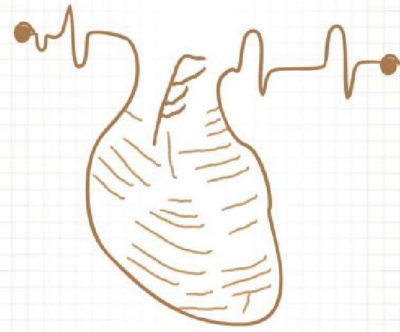
## Biomedical Engineering

Biomedical engineering is the application of engineering practices to human health issues. Biomedical engineering combines the mechanical and mathematical expertise of engineering with the medical expertise of physicians to help improve the lives of people every minute of every day. It covers fields such as: bioinformatics, medical imaging, image processing, physiological signal processing, biomechanics, biomaterials and bioengineering. This Bachelor of Science program is accredited by the Engineering Accreditation Commission of ABET.
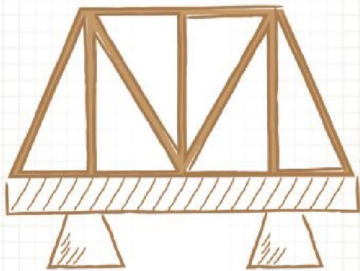
## Civil & Environmental Engineering

Civil engineering deals with the design, construction, and maintenance of the physical and naturally built environment, roads, bridges, canals, dams, and buildings. This Bachelor of Science program is accredited by the Engineering Accreditation Commission of ABET.
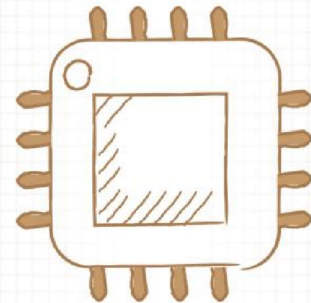
## Computer Engineering

Computer engineering combines electronic design, computer architecture, programming of computing systems, computer networks, and applied mathematics. Computer engineers are involved in many hardware and software aspects of computing, from the design of individual microprocessors, personal computers, and supercomputers, to circuit design. This field of engineering not only focuses on how computer systems themselves work, but also how they integrate into the larger picture. This Bachelor of Science program is accredited by the Engineering Accreditation Commission of ABET.
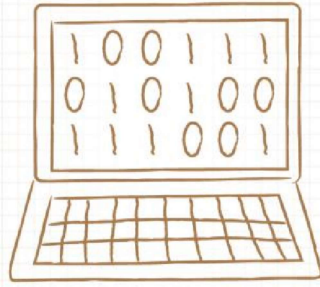
## Computer Science

Computer science deals with the theoretical foundations of information and computation, together with practical techniques for the implementation and application of these foundations.  The Department of Computer Science offers both a Bachelor of Science program and a Bachelor of Arts program.  The Bachelor of Science program is accredited by the Computing Accreditation Commission of ABET.
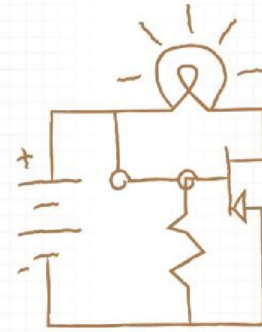


## Electrical Engineering

Electrical engineering provides the technological foundation for the modern information society. Almost every technological advance made today can be traced to the work of electrical engineers. Electrical engineers design the micro integrated circuits (IC's) that are fueling the explosion in electronic devices and telecommunication networks.  This Bachelor of Science program is accredited by the Engineering Accreditation Commission of ABET.
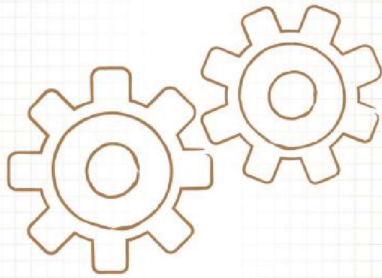


## Mechanical Engineering

Mechanical engineering plays a critical role in enhancing safety, economic vitality, and overall quality of life throughout the world. It is the broadest engineering discipline, ranging from nanotechnology to large scale manufacturing. Mechanical engineers are concerned with the principles of force, energy, and motion, and they work on the design and manufacture of mechanical systems and thermal devices and processes. A few examples of products and processes developed by mechanical engineers include engines and control systems for automobiles and aircraft, robots, and lifesaving medical devices. This Bachelor of Science program is accredited by the Engineering Accreditation Commission of ABET.
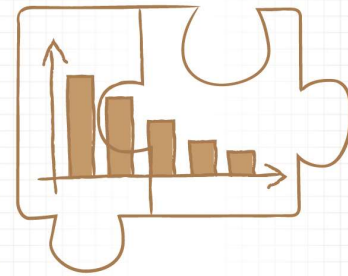


## Systems Engineering

Systems engineering is an interdisciplinary field of engineering focusing on how complex engineering projects should be designed and managed over their life cycles.  Systems engineering deals with work-processes, optimization methods and tools to manage risks in such projects, and it overlaps with both technical and human-centered disciplines such as control engineering, industrial engineering, organizational studies, and project management.  The Department of Engineering Management and Systems Engineering offers a Bachelor of Science program in systems engineering.

School of Engineering
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