

COLLEGE of ENGINEERING

UNDERGRADUATE PROGRAM INFORMATION

The College of Engineering offers bachelor's degrees in 11 areas:

Aerospace Engineering

Mechanical and Aerospace Engineering Department – uta.engineering/aerospace

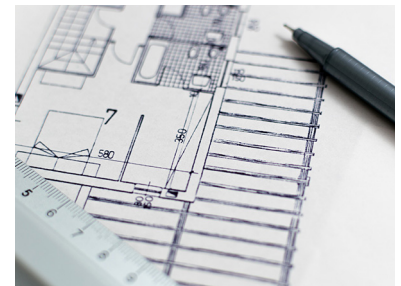
Aerospace engineers design, develop, test and produce aircraft, spacecraft, and related systems and equipment. Aerospace engineers develop technologies for aerospace vehicle systems used for transportation, communications, exploration and defense applications, including the design, testing and manufacturing of aircraft, spacecraft, propulsion systems, satellites and missiles, and aerospace products and components.



Architectural Engineering

Civil Engineering Department – uta.engineering/civil

Architectural engineers are responsible for the individual design of each of a building's systems: structural, heating, ventilation, and air conditioning, lighting and electrical, plumbing, and fire protection. They may also oversee the coordinated design of these systems and the construction of the entire building with the goal of a safe, economical, and sustainable building system that provides a secure and comfortable environment for its occupants.



Biomedical Engineering

Bioengineering Department – uta.engineering/bioengineering

Biomedical engineering is the application of engineering principles and design concepts to the medical field for diagnostic or therapeutic healthcare. Biomedical engineers combine the design and problem solving skills of engineering with medical and biological sciences to advance health care treatment, including diagnosis, monitoring, and therapy through biomaterials, tissue engineering and medical imaging.



Civil Engineering

Civil Engineering Department – uta.engineering/civil

Civil engineers plan, design, construct, maintain, manage, and operate facilities essential to modern, civilized human life. Projects may include bridges, tunnels, transportation systems, airports, storm water drainage systems, dams, buildings, foundations, water treatment and distribution, wastewater collection and treatment, hazardous waste treatment, environmental remediation, environmental protection, and air pollution control.



Computer Engineering

Computer Science and Engineering Department – uta.engineering/computer

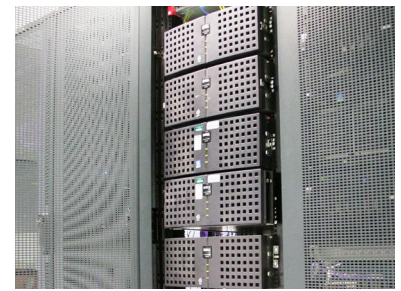
Computer engineers analyze and solve computer-oriented problems. They embed computers in other machines and systems, build networks to transfer data, and develop ways to make computers faster and more efficient. Computer engineers work with computer vision and machine learning, and are making computers more mobile, including incorporating computers into clothing and building materials.



Computer Science

Computer Science and Engineering Department – uta.engineering/computer

Computer scientists specialize in the theory of computation and the design of computational systems. They create algorithms for processing data, develop software and protocols for processing and communicating data reliably and securely across networks, organize databases and explore computer learning. Areas within computer science include big data analytics, artificial intelligence and computer and network security.



Construction Management

Civil Engineering Department – uta.engineering/civil

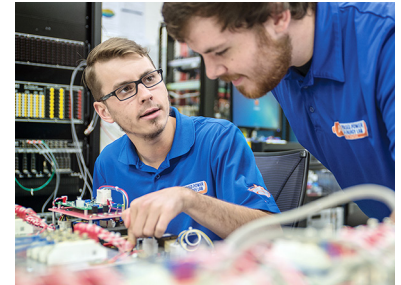
Construction managers use specialized, project management techniques to manage the planning, design and construction of a project, from beginning to end, to control time, cost and quality. They typically do not perform the actual construction tasks themselves, but lead teams of specialists who oversee scheduling, safety, cost estimating, design, quality assurance, value engineering, commissioning, construction inspection, risk management and more.



Electrical Engineering

Electrical Engineering Department – uta.engineering/electrical

Electrical engineers design and develop most of the electronics devices you use today, from cell phones and tablets to smart homes. Those include the networks and systems which allow the modern world to communicate, control systems for autonomous vehicles and drones, robotics, and factory automation, power generation and distribution equipment that delivers power to homes and businesses, and other leading areas such as lasers, optics, radar, and remote sensing.



Industrial Engineering

Industrial, Manufacturing & Systems Engineering Department – uta.engineering/industrial

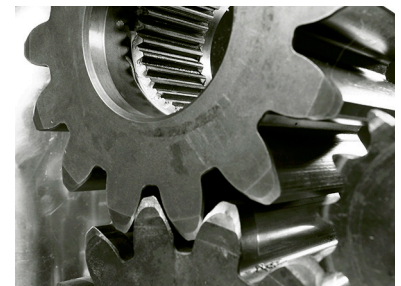
Industrial engineers design systems that merge people, processes, technology, and information to provide services and/or manufacturing products efficiently, productively, and safely. Industrial engineers work to reduce production costs, increase efficiency, improve the quality of products and services, ensure worker health and safety, protect the environment and comply with government regulations.



Mechanical Engineering

Mechanical and Aerospace Engineering Department – uta.engineering/mechanical

Mechanical engineers design cars, autonomous vehicles, and robots. They are also concerned with efficiency of power systems and design, build, and test composite materials for use in a variety of applications. Mechanical engineering majors study areas such as mechanical design, robotics, energy generation, manufacturing, thermodynamics, fluid mechanics, heat transfer, materials science, and dynamic systems and control.



Software Engineering

Computer Science and Engineering Department – uta.engineering/computer

Software engineers design, develop, test and evaluate the software and systems that enable computers to perform their many applications. They must possess strong programming skills, but are often more concerned with developing algorithms and analyzing and solving programming problems than with actually writing code. Typically software engineers analyze the needs of the user, then design, test and maintain software or systems to meet those needs.

```
/* Front-trans-box */
#front-trans-box {position:absolute; padding: 15px; background-color: rgb(0, 4
#fb-01 {left: 40px; width: 40%; margin:30px 0 0 0;}
#fb-02 {right: 40px; width: 35%; margin:30px 0 0 0;}
#fb-03 {right: 40px; width: 35%; margin:32px 0 0 0;}
#fb-04 {right: 40px; width: 45%; margin:12px 0 0 0;}
#fb-05 {left: 70px; width: 30%; margin:14px 0 0 0;}
#fb-06 {right: 35px; width: 40%; margin:36px 0 0 0;}
#fb-07 {right: 20px; width: 30%; margin:18px 0 0 0;}
#fb-08 {left: 30px; width: 30%; margin:31px 0 0 0;}
#fb-09 {right: 20px; width: 35%; margin:34px 0 0 0;}
#strbox {float:right; width:50%; margin-left:10px; margin-top:10px; max-width:50%;
#strbox lng { width:45%; margin-left:2%;}
#front-trans-box h3 {font-family: "Times New Roman", "Times", serif; font-size:
#front-trans-box p {margin-top:40px; line-height:1.2;}
#front-trans-box a, #front-trans-box a:visited {color: #00ffcc !important; text-
#front-trans-box a:hover {color: #ffffff !important;}

/* inside pages */
#inside-body-wrapper section {background-color:white; max-width:1020px; width:96
#content-left {width:73%; margin: 0 20px 0; padding: 0 1% 10px 0;}
#content-left.full-width {width:100%;}
#banner lng {width: 100%; margin: 0 0 20px 0; border-radius: 3px;}

/* 3.2 Front Content Second Area */
```